DORMER PRAMET

TURNING

2021 – 2022

PRAMET

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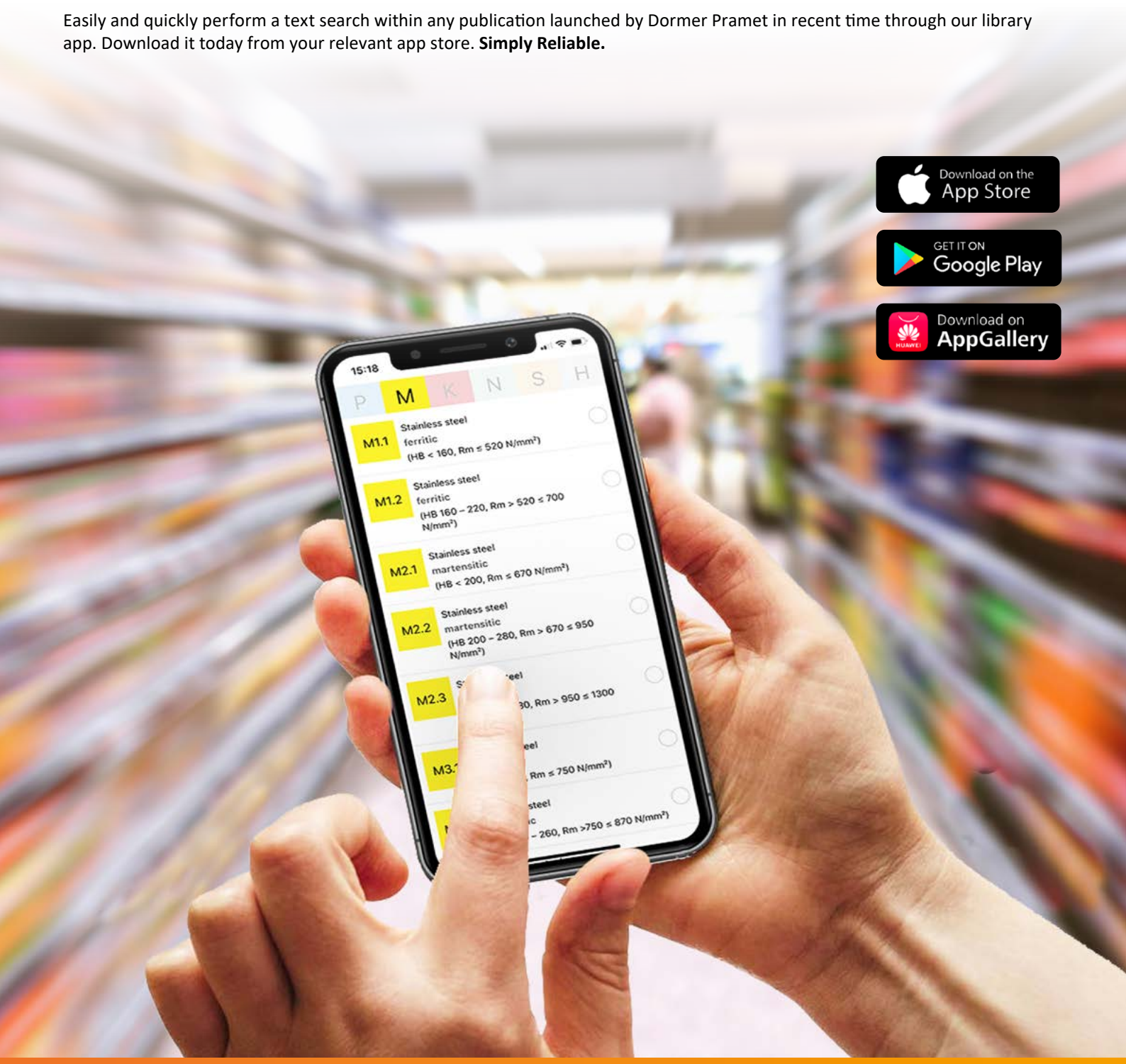
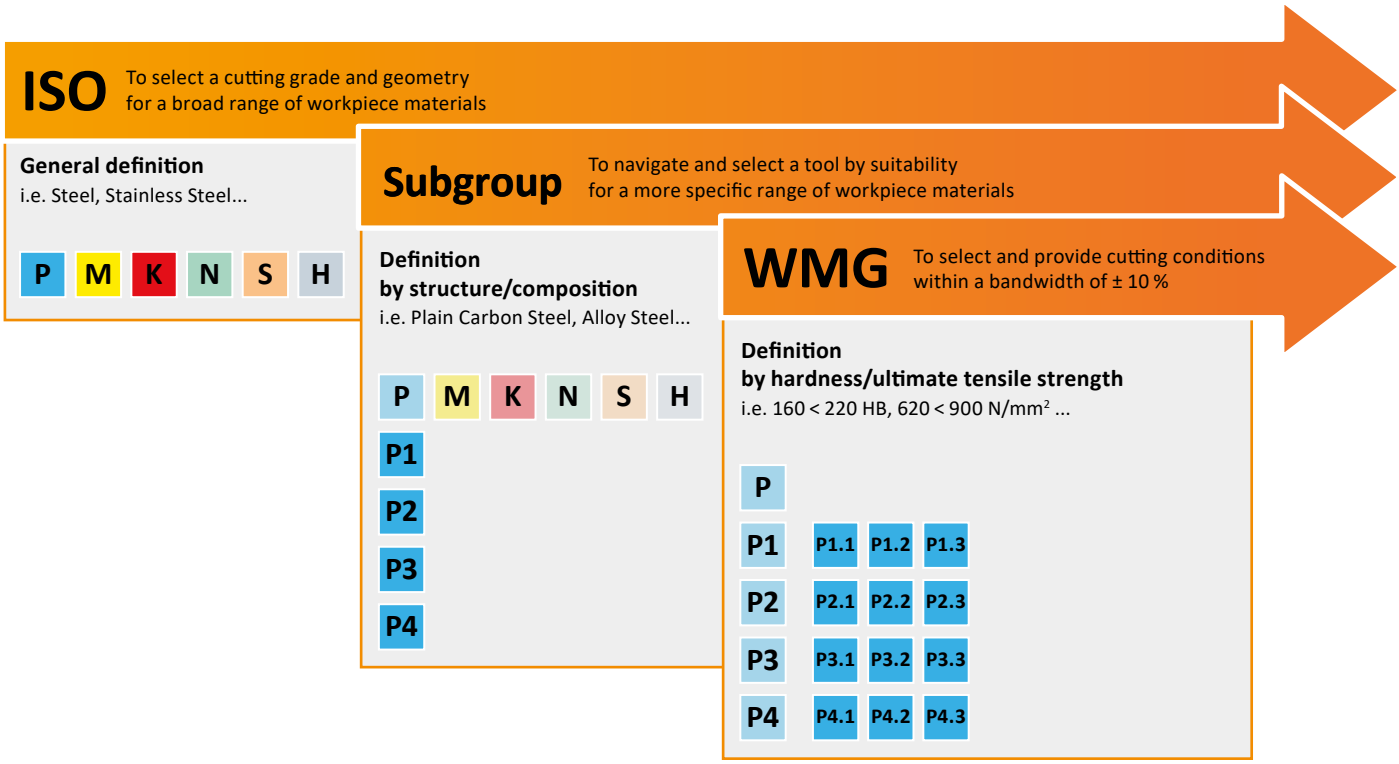


WORKPIECE MATERIAL GROUPS (WMG)



ABOUT DORMER PRAMET'S WORKPIECE MATERIAL CLASSIFICATION

Workpiece **M**aterial **G**roups (**WMG**) are used to support easy and reliable selection of the right cutting tool and starting values for machining conditions in particular applications.

Dormer Pramet classifies workpiece materials into six different coloured groups;

- **Blue**: Steel and cast steel (P-group)
- **Yellow**: Stainless steel (M-group)
- **Red**: Cast iron (K-group)
- **Green**: Non-ferrous metals (N-group)
- **Brown**: High-temperature alloys (S-group)
- **Grey**: Hardened materials (H-group)

Each of these are divided into subgroups on the basis of their structure and/or composition. For example, P-group steel and cast steel is split into four subgroups, namely;

- **P1** – Free machining steel
- **P2** – Plain carbon steel
- **P3** – Alloy steel
- **P4** – Tool steel

A final division includes material properties, such as hardness and ultimate tensile strength. This is to provide our customers with a complete tool recommendation, including starting values for cutting speed and feed.

The table on the next page includes a description of each workpiece material group, as well as examples of commonly used designations.

WMG (WORK MATERIAL GROUP)

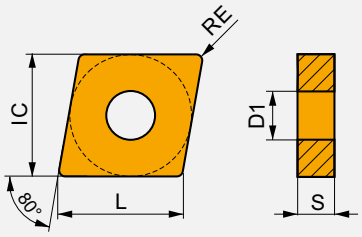
ISO group		WMG (Work Material Group)			Hardness (HB or HRC)	Ultimate Tensile Strength (MPa)	Examples
P	P1	P1.1	Free machining steel (carbon steels with increased machinability)	Sulfurized	< 240 HB	≤ 830	Examples of machining materials – see chapter **GENERAL TECHNICAL INFORMATION** (page 539).
		P1.2		Sulfurized and phosphorized	< 180 HB	≤ 620	
		P1.3		Sulfurized/phosphorized and leaded	< 180 HB	≤ 620	
	P2	P2.1	Plain carbon steel (steels comprised of mainly iron and carbon)	Containing <0.25 % C	< 180 HB	≤ 620	
		P2.2		Containing <0.55 % C	< 240 HB	≤ 830	
		P2.3		Containing >0.55 % C	< 300 HB	≤ 1030	
	P3	P3.1	Alloy steel (carbon steels with an alloying content ≤ 10%)	Annealed	< 180 HB	≤ 620	
		P3.2		Hardened and tempered	180 – 260 HB	> 620 ≤ 900	
		P3.3			260 – 360 HB	> 900 ≤ 1240	
	P4	P4.1	Tool steel (special alloy steel for tools, dies and molds)	Annealed	< 26 HRC	≤ 900	
		P4.2		Hardened and tempered	26 – 39 HRC	> 900 ≤ 1240	
		P4.3			39 – 45 HRC	> 1240 ≤ 1450	
M	M1	M1.1	Ferritic stainless steel (straight chromium non-hardenable alloys)		< 160 HB	≤ 520	
		M1.2			160 – 220 HB	> 520 ≤ 700	
	M2	M2.1	Martensitic stainless steel (straight chromium hardenable alloys)	Annealed	< 200 HB	≤ 670	
		M2.2		Quenched and tempered	200 – 280 HB	> 670 ≤ 950	
		M2.3		Precipitation-hardened	280 – 380 HB	> 950 ≤ 1300	
	M3	M3.1	Austenitic stainless steel (chromium-nickel and chromium-nickel-manganese alloys)		< 200 HB	≤ 750	
		M3.2			200 – 260 HB	> 750 ≤ 870	
		M3.3			260 – 300 HB	> 870 ≤ 1040	
	M4	M4.1	Austenitic-ferritic (DUPLEX) or super-austenitic stainless steel		< 300 HB	≤ 990	
		M4.2	Precipitation hardening austenitic stainless steel		300 – 380 HB	≤ 1320	
K	K1	K1.1	Gray iron or Automotive Gray iron (GG) (iron-carbon castings with a lamellar graphite microstructure)	Ferritic or ferritic-pearlitic	< 180 HB	≤ 190	
		K1.2		Ferritic-pearlictic or pearlitic	180 – 240 HB	> 190 ≤ 310	
		K1.3		Pearlitic	240 – 280 HB	> 310 ≤ 390	
	K2	K2.1	Malleable iron (GTS/GTW) (iron-carbon castings with a graphite-free microstructure)	Ferritic	< 160 HB	≤ 400	
		K2.2		Ferritic or pearlitic	160 – 200 HB	> 400 ≤ 550	
		K2.3		Pearlitic	200 – 240 HB	> 550 ≤ 660	
	K3	K3.1	Ductile iron (GGG) (iron-carbon castings with a nodular graphite microstructure)	Ferritic	< 180 HB	≤ 560	
		K3.2		Ferritic or pearlitic	180 – 220 HB	> 560 ≤ 680	
		K3.3		Pearlitic	220 – 260 HB	> 680 ≤ 800	
	K4	K4.1	Austenitic gray iron (ASTM A436) (iron-carbon alloy castings with an austenitic lamellar graphite microstructure)		< 180 HB	≤ 190	
		K4.2	Austenitic ductile iron (ASTM A439 or ASTM A571) (iron-carbon alloy castings with an austenitic nodular graphite microstructure)		< 240 HB	≤ 740	
		K4.3	Austempered ductile iron (ASTM A897) (iron-carbon alloy castings with an ausferrite microstructure)		< 280 HB	> 840 ≤ 980	
		K4.4			280 – 320 HB	> 980 ≤ 1130	
		K4.5			320 – 360 HB	> 1130 ≤ 1280	
	K5	K5.1	Compacted graphite iron CGI (ASTM A842) (iron-carbon castings with a vermicular graphite structure)	Ferritic	< 180 HB	≤ 400	
		K5.2		Ferritic-pearlitic	180 – 220 HB	> 400 ≤ 450	
		K5.3		Pearlitic	220 – 260 HB	> 450 ≤ 500	
N	N1	N1.1	Commercially pure wrought aluminium		< 60 HB	≤ 240	
		N1.2	Wrought aluminium alloys	Half hard tempered	60 – 100 HB	> 240 ≤ 400	
		N1.3		Full hard tempered	100 – 150 HB	> 400 ≤ 590	
	N2	N2.1	Cast aluminium alloys		< 75 HB	≤ 240	
		N2.2			75 – 90 HB	> 240 ≤ 270	
		N2.3			90 – 140 HB	> 270 ≤ 440	
	N3	N3.1	Free-cutting copper-alloys materials with excellent machining properties		–	–	
		N3.2	Short-chip copper-alloys with good to moderate machining properties		–	–	
		N3.3	Electrolytic copper and long-chip copper-alloys with moderate to poor machining properties		–	–	
	N4	N4.1	Thermoplastic polymers		–	–	
		N4.2	Thermosetting polymers		–	–	
		N4.3	Reinforced polymers or composites		–	–	
	N5	N5.1	Graphite		–	–	
S	S1	S1.1	Titanium or titanium alloys		< 200 HB	≤ 660	
		S1.2			200 – 280 HB	> 660 ≤ 950	
		S1.3			280 – 360 HB	> 950 ≤ 1200	
	S2	S2.1	Fe-based high-temperature alloys		< 200 HB	≤ 690	
		S2.2			200 – 280 HB	> 690 ≤ 970	
	S3	S3.1	Ni-based high-temperature alloys		< 280 HB	≤ 940	
		S3.2			280 – 360 HB	> 940 ≤ 1200	
	S4	S4.1	Co-based high-temperature alloys		< 240 HB	≤ 800	
		S4.2			240 – 320 HB	> 800 ≤ 1070	
H	H1	H1.1	Chilled cast iron		< 440 HB	–	
	H2	H2.1	Hardened cast iron		< 55 HRC	–	
		H2.2			> 55 HRC	–	
	H3	H3.1	Hardened steel <55 HRC		< 51 HRC	–	
		H3.2			51 – 55 HRC	–	
	H4	H4.1	Hardened steel >55 HRC		55 – 59 HRC	–	
		H4.2			> 59 HRC	–	

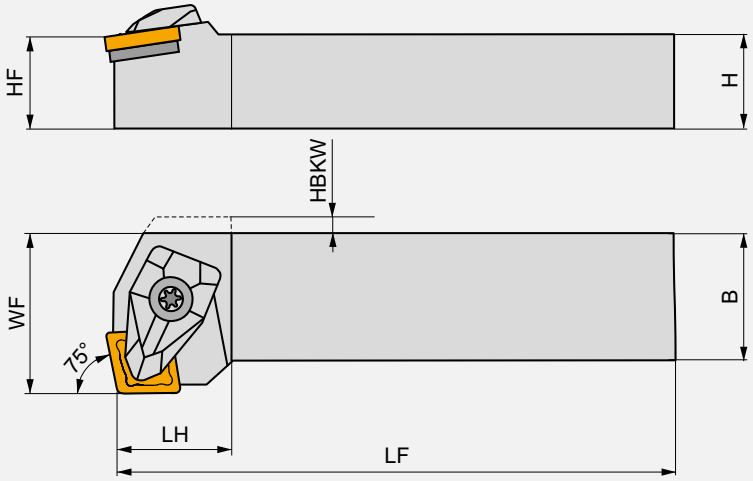
CUTTING TOOL PARAMETERS ACCORDING TO ISO 13399

All cutting tools are defined by a number of parameters according to the standard ISO 13399. This list contains all the parameters used in this catalogue and their definitions.

ISO 13399 is an international cutting tool information standard. It provides dimensions and parameters in a neutral format that is independent of any particular system or company nomenclature. When cutting tools are clearly defined according to a global standard, all types of software can process the electronic data more quickly, improving the quality of communication and helping to make the exchange of information run smoothly. Supporting a common language in our cutting tool descriptions this will assist system to system communication. It will save you a significant amount of time, providing an easier gathering of high-quality data across our 40,000 solid and indexable tools. By using an ISO 13399 compliant system, there will be no need to manually interpret data and key-enter it into your system.

EXAMPLES ONLY!





ISO 13399	Description
APMX	Depth of cut maximum
B	Shank width
BD	Body diameter
BLRAD	Blade reinforcement radius
BW	Insert body width
CDX	Cutting depth maximum
CND	Coolant entry diameter
CUTDIA	Work piece parting diameter maximum
CW	Cutting width
CWTOLL	Cutting width lower tolerance
CWTOLU	Cutting width upper tolerance
D1	Fixing hole diameter
DAXIN	Minimum axial groove inside diameter
DAXN	Minimum axial groove outside diameter
DAXX	Maximum axial groove outside diameter
DCON MS	Connection diameter
DMIN	Minimum bore diameter
DMINP	Minimum bore diameter perpendicular
GAMO	Ortogonal rake angle
GAMP	Axial rake angle
H	Shank height
HBH	Head bottom offset height
HBKW	Head bottom offset width
HF	Functional height
IC	Inscribed circle diameter
INSD	Insert diameter
INSL	Insert length

ISO 13399	Description
KAPR	Tool cutting edge angle
L	Cutting edge length
LAMS	Inclination angle
LB	Body length
LF	Functional length
LFA	A dimension on LF
LFS	Functional length secondary
LH	Head length
LU	Usable length
M	M-dimension
OAL	Overall length
PDX	Profile distance X
PDY	Profile distance Y
PSIRL	Tool lead angle left
PSIRR	Tool lead angle right
RE	Corner radius
S	Insert thickness
S1	Insert thickness total
TP	Thread pitch
TPI	Threads per inch
TPIN	Threads per inch
TPIX	Threads per inch
TPN	Thread pitch minimum
TPX	Thread pitch maximum
W1	Insert width
WF	Functional width
WFS	Functional width secondary

DORMER PRAMET

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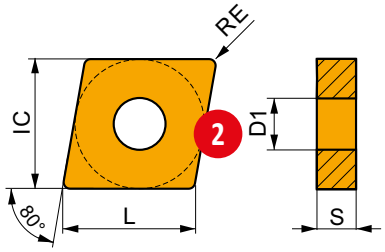
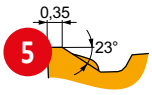
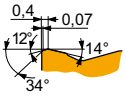
ISO TURNING

1 CNMM

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.90	4.76
1606	15.875	6.35	16.10	6.35
1906	19.050	7.94	19.30	6.35
2509	25.400	9.12	25.80	9.53



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			DR geometry for semi-rough to rough machining, a…tinuous to interrupted cuts.																	
CNMM 160612E-DR	T9315	1.2	225	0.45	6.0	–	–	–	210	0.45	6.0	–	–	–	–	–	–	–	–	–
			200	0.45	6.0	120	0.41	6.0	190		6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.45	6.0	100	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190608E-DR	T9315	0.8	215	0.40	8.0	–	–	–	200	0.40	8.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.40	8.0	110	0.36	8.0	180	0.40	8.0	–	–	–	–	–	–	–	–	–
CNMM 190612E-DR	T9315	1.2	220	0.45	8.0	–	–	–	205	0.45	8.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.45	8.0	115	0.41	8.0	185	0.45	8.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.45	8.0	100	0.41	8.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190616E-DR	T9325	1.6	195	0.50	9.0	115	0.45	9.0	185	0.50	9.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	170	0.50	9.0	100	0.45	9.0	–	–	–	–	–	–	–	–	–	–	–	–
			HR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																	
CNMM 190616E-HR	6640	1.6	75	0.60	10.0	45	0.54	10.0	70	0.60	10.0	–	–	–	–	–	–	–	–	–
	T8345	1.6	55	0.60	10.0	30	0.54	10.0	50	0.60	10.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	105	0.60	10.0	60	0.54	10.0	95	0.60	10.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	80	0.60	10.0	45	0.54	10.0	–	–	–	–	–	–	–	–	–	–	–	–

CNMM190616E-HR:T8345 Use full insert specification code when ordering!

- Grade
- Include colon
- ISO insert code

TURNING INSERTS – PAGE OVERVIEW

Pos.	Description
1	Designation of insert
2	Schematic drawing of insert
3	Table with insert sizes [mm]
4	Picture of representative insert
5	Profile of main cutting edge
6	Icons – specific features and cutting edge type

Pos.	Description
7	ISO insert code
8	Grade
9	Insert radii [mm]
10	Geometry description
11	Application area of insert

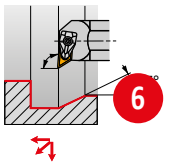
1 DDUN(RL) INT

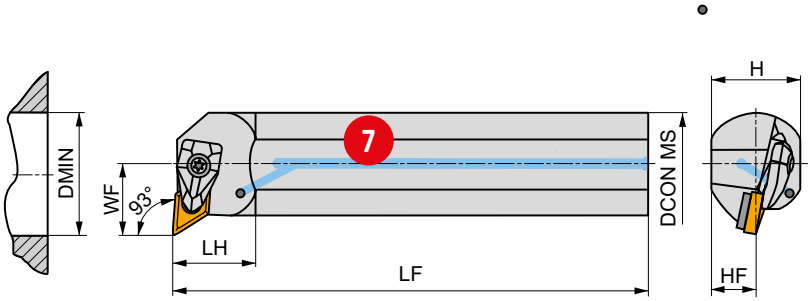
P M K N S I 2

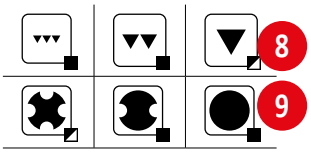
PRAMET 3 D

Internal Double Clamp Boring Bar with 93° Cutting Angle for DN.. Insert 5

Internal Right/Left hand double clamp boring bar, through coolant, 93° cutting angle for DN.. 11 and 15 inserts. Minimum internal turning diameter Ø32 mm. Suited for wide range of internal turning applications, copy turning up to 27°. Available with shank size Ø25 up to Ø50 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg			
R	**A25T-DDUNR 11**	25	32	17	23	11.5	300	28	-12	-6	✓	0.96	GI046	DD11	–
	A32T-DDUNR 11	32	40	22	30	15	300	30	-10	-6	✓	1.68	GI046	DD11	–
	A40T-DDUNR 15	40	50	27	37	18.5	300	36	-11	-6					
	A50U-DDUNR 15	50	63	35	47	23.5	350	39	-8	-6					
L	**A25T-DDUNL 11**	25	32	17	23	11.5	300	28	-12	-6	✓	0.96	GI046	DD11	–
	A32T-DDUNL 11	32	40	22	30	15	300	30	-10	-6	✓	1.69	GI046	DD11	–
	A40T-DDUNL 15	40	50	27	37	18.5	300	36	-11	-6	✓	2.59	GI044	DD154	AT002
	A50U-DDUNL 15	50	63	35	47	23.5	350	39	-8	-6	✓	5.25	GI044	DD154	AT002

11 12 13 14 15 16 17 18

	19
GI044	DN.. 1506..
GI046	DN.. 1104..

		Nm	20		
DD11	DCS 09	1.7	DDS 267-01	US 2004-T09P	FLAG T09P
DD154	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5

		21	
AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–

Typical page with turning holder displayed – specific page details will differ.

TURNING HOLDERS – PAGE OVERVIEW

Pos.	Description
1	Designation of turning holder
2	Material group recommendations
3	Clamping system of insert
4	Illustrative picture [1]
5	Tool description
6	Workpiece profile
7	Schematic drawing of tool
8	Achievable quality of surface
9	Character of cut/working conditions
10	Product applications
11	Tool design

Pos.	Description
12	ISO code of holder
13	Dimensions [mm] and angles [2] [°] of holder
14	Internal coolant supply
15	Weight [kg]
16	Group of compatible inserts [3]
17	Group of spare parts [3], [4]
18	Group of accessories [3], [4]
19	Compatible inserts
20	Spare parts
21	Special accessories

[1] Turning holder is primarily displayed in its right design (R)

[2] GAMO = orthogonal rake angle (see technical pages)

LAMS = inclination angle of main cutting edge (see technical pages)

[3] Code of Group of compatible inserts, spare parts and special accessories is used only for purposes of this catalogue. It cannot be used for orders.

[4] Spare parts and special accessories icons are designed schematically for ease of understanding. They aren't included in list of icons. Screws are, in some cases, completed with info on torque value in Nm, length of screw and size of thread.

TURNING HOLDERS – ICONS OVERVIEW

GENERAL ICONS

■	Primary use
◪	Possible use

▼▼▼	Finishing – very good surface quality
▼▼	Medium machining – good surface quality
▼	Roughing – unlimited surface roughness

●	Suitable for stable working conditions
●	Suitable for unstable working conditions
●	Suitable for very unstable working conditions

FEATURES

1	First choice
	For short chipping materials
	For tough materials (long chipping)
	Heavy working conditions
HFC	High Feed Cutting
HSC	High Speed Cutting

W	Insert with Wiper geometry
	Large overhang
	Railway wheel machining
	Thin-walled and slim workpieces
U	Universal wide range option

F	Sharp edge
E	Rounded edge
T	Edge with facet
S	Rounded edge with facet
K	Edge with double facet
P	Rounded edge with double facet

TURNING OPERATIONS

	Cone turning – external
	Cone turning – internal
	Copy turning (multi directional machining)
	Face copy turning
	Face copy turning in hole
	Face turning with shoulder
	Face turning without shoulder

	Chamfering (bevelling)
	Chamfering (bevelling) from the back
	Chamfering (bevelling) in hole
	Longitudinal turning with shoulder – external
	Longitudinal turning with shoulder – internal
	Longitudinal turning without shoulder – external
	Longitudinal turning without shoulder – internal

	Machining the rear face (shoulder) from the back
	Multi directional copy turning – external
	Multi directional copy turning – internal
	One directional copy turning – external
	One directional copy turning – internal
	Shallow radial groove

TURNING HOLDERS – ICONS OVERVIEW

TECHNICAL PAGES

FF	Fine finishing
F	Finishing
M	Medium machining
R	Roughing
HR	Heavy roughing
X.V	Multiplication factor for cutting speed
a_p	Depth of cut [mm]
f	Feed [mm/rev]
	Durability [min]
	Grade
(MT)CVD PVD	Coating
V	Cutting speed
	Cutting edge profile
	Cooling
	Very high cutting speed, excellent system rigidity (stable working conditions)
	High cutting speed, high system rigidity (stable working conditions)
	High cutting speed, system rigidity slightly limited (depth of cut changing)
	Medium cutting speed, system rigidity limited (slightly interrupted cut)
	Low cutting speed, low system rigidity (interrupted cut)
	Very low cutting speed, very low system rigidity (very unstable working conditions)

OTHERS

Nm	Clamping torque of screw [Nm]
	Group of heads for roughing
	Internal supply of coolant

SNMA

300

SNMG

301

SNMM

307

SNMX

311

SNGA CER

311

SNGN CER

312

TNMA

334

TNMG

335

TNMM

342

TNGA CER

343

TNGN CER

344

TNGA CBN

344

VNMG

356

VNGA CER

359

VNGA CBN

359

WNMA

366

WNMG

366

WNMM

375

WNGA CBN

376

P

Very unstable working conditions

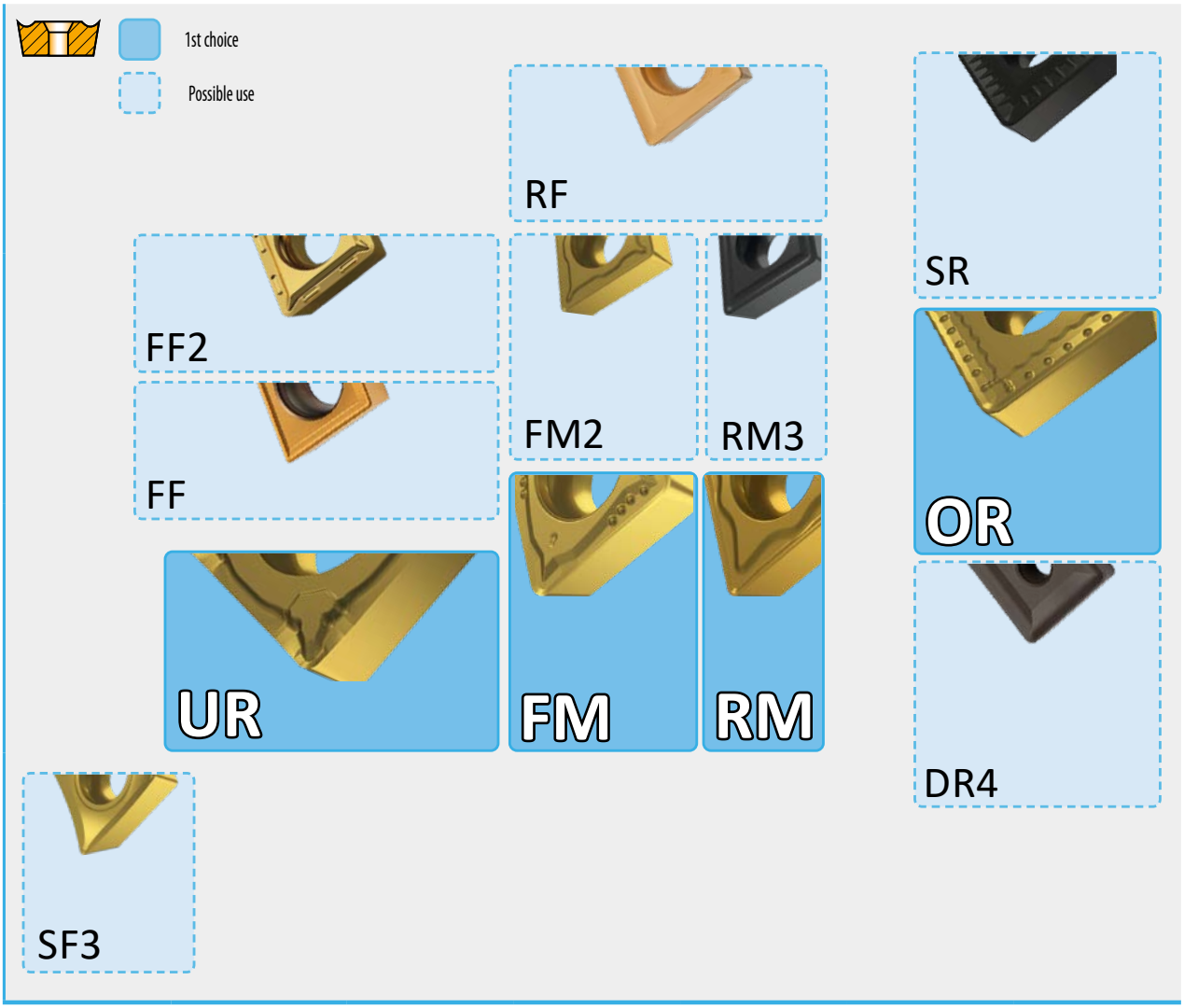
Unstable working conditions

Stable working conditions

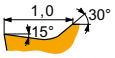
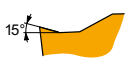
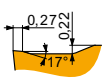
Thin -walled and slim workpieces

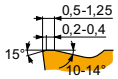
1st choice

Possible use



	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

UR		Designed for fine to finish machining, steels and cast irons and potentially stainless steel, continuous and interrupted cuts
FM		Designed for finish to semi-rough machining, steels and stainless steels, potentially cast irons and non ferrous materials, continuous and moderately interrupted cuts
RM		Designed for semi-rough machining, steels, stainless steels and cast irons, potentially super alloys and hard-ened materials, continuous and interrupted cuts

OR		Designed for rough and heavy rough machining, steels, stainless steels and cast irons, potentially super alloys. continuous and interrupted cuts

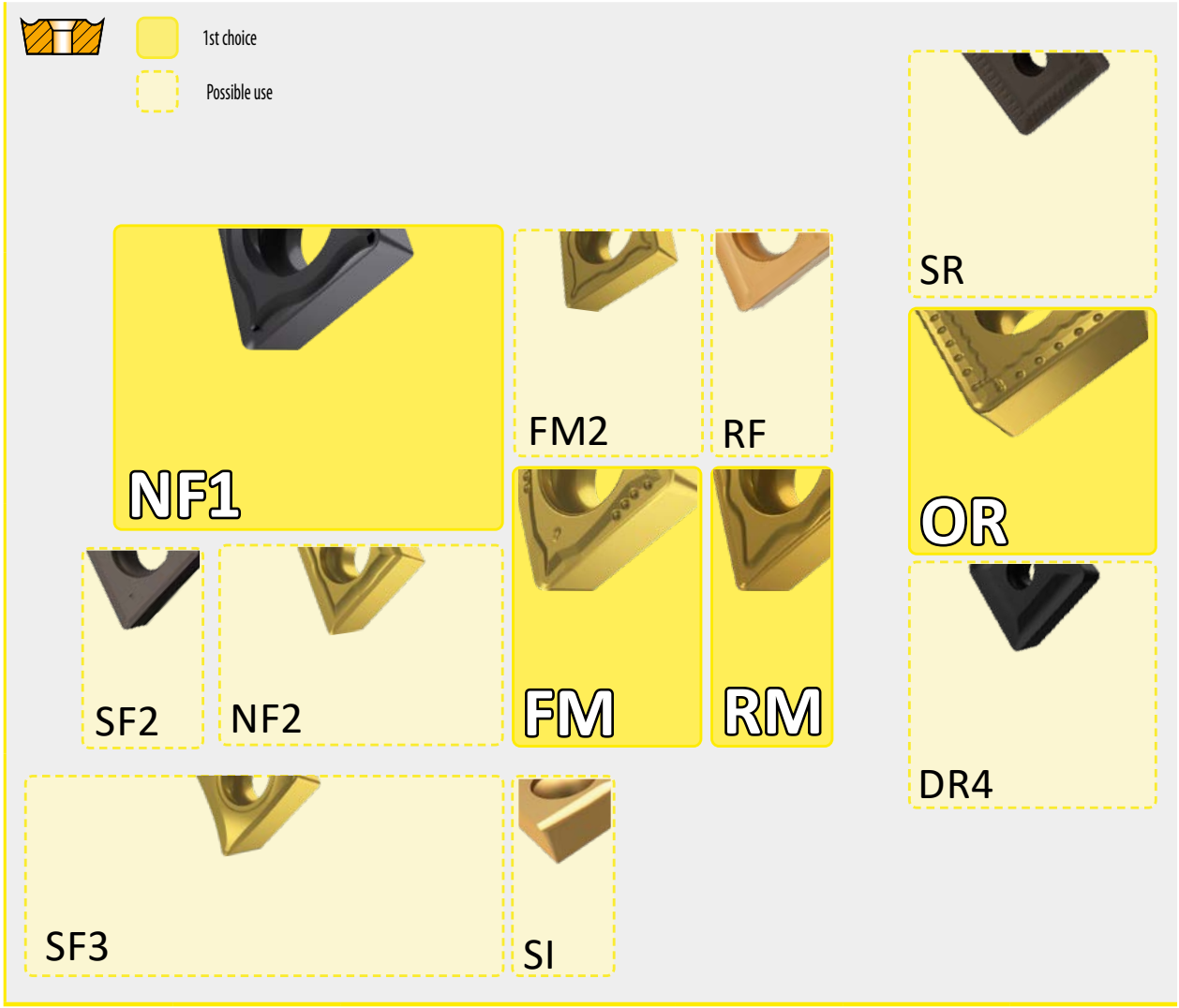
M

Very unstable working conditions

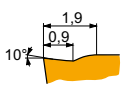
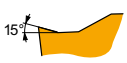
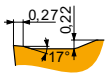
Unstable working conditions

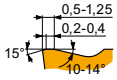
Stable working conditions

Thin -walled and slim workpieces



	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

NF1		Positive design for fine-finish to medium machining, stainless steels and super alloys, potentially steels, non ferrous and hard materials, continuous cuts
FM		Designed for finish to semi-rough machining, steels and stainless steels, potentially cast irons and non ferrous materials, continuous and moderately interrupted cuts
RM		Designed for semi-rough machining, steels, stainless steels and cast irons, potentially super alloys and hard-ened materials, continuous and interrupted cuts

OR		Designed for rough and heavy rough machining, steels, stainless steels and cast irons, potentially super alloys. continuous and interrupted cuts

K

Very unstable working conditions

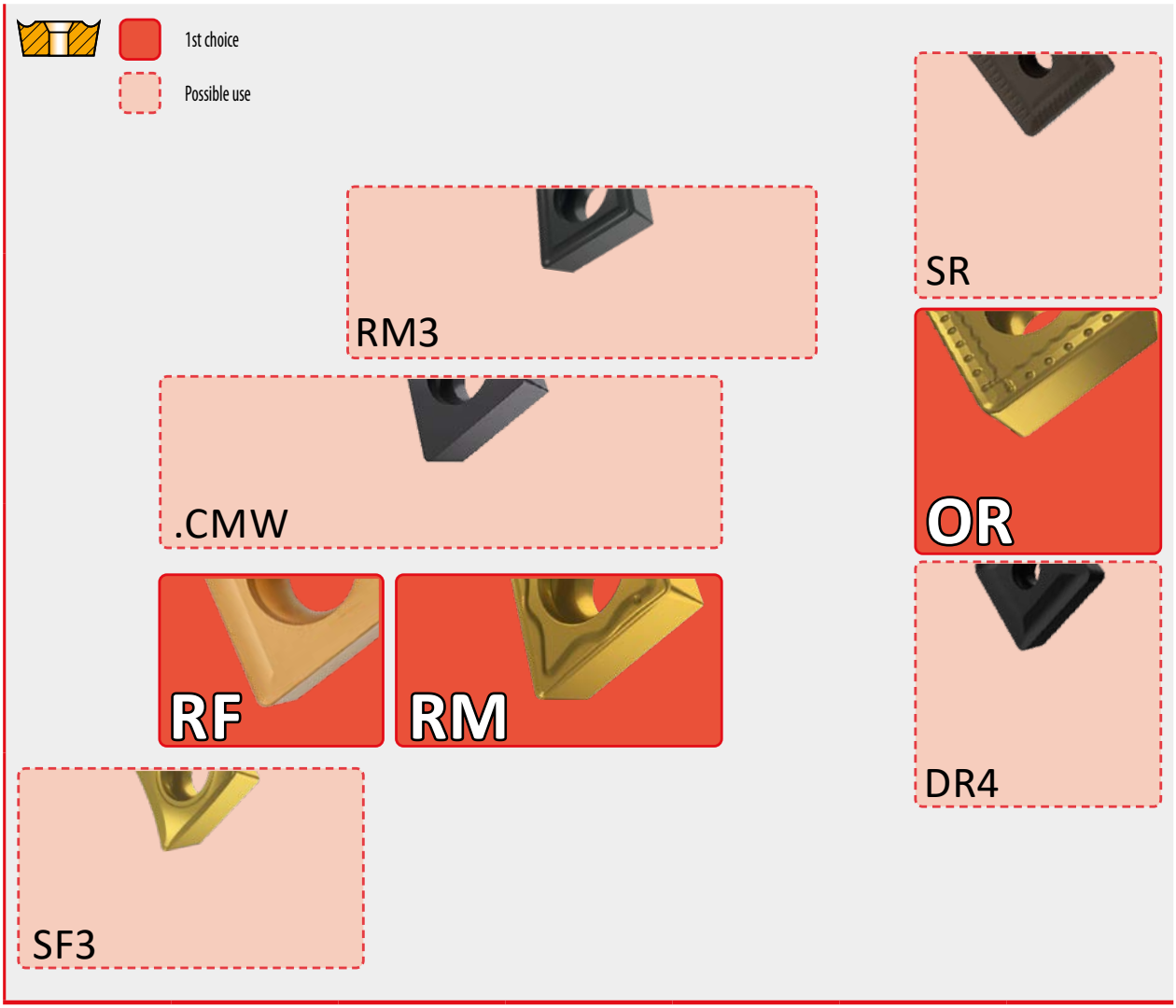
Unstable working conditions

Stable working conditions

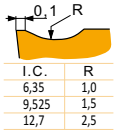
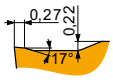
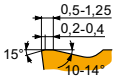
Thin -walled and slim workpieces

1st choice

Possible use



	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

RF	 I.C. / R: 6,35 / 1,0; 9,525 / 1,5; 12,7 / 2,5	Designed for rough machining, cast irons, potentially steels, stainless steels and hard materials, continuous and interrupted cuts
RM		Designed for semi-rough machining, steels, stainless steels and cast irons, potentially super alloys and hardened materials, continuous and interrupted cuts
OR		Designed for rough and heavy rough machining, steels, stainless steels and cast irons, potentially super alloys. continuous and interrupted cuts

N

Very unstable working conditions

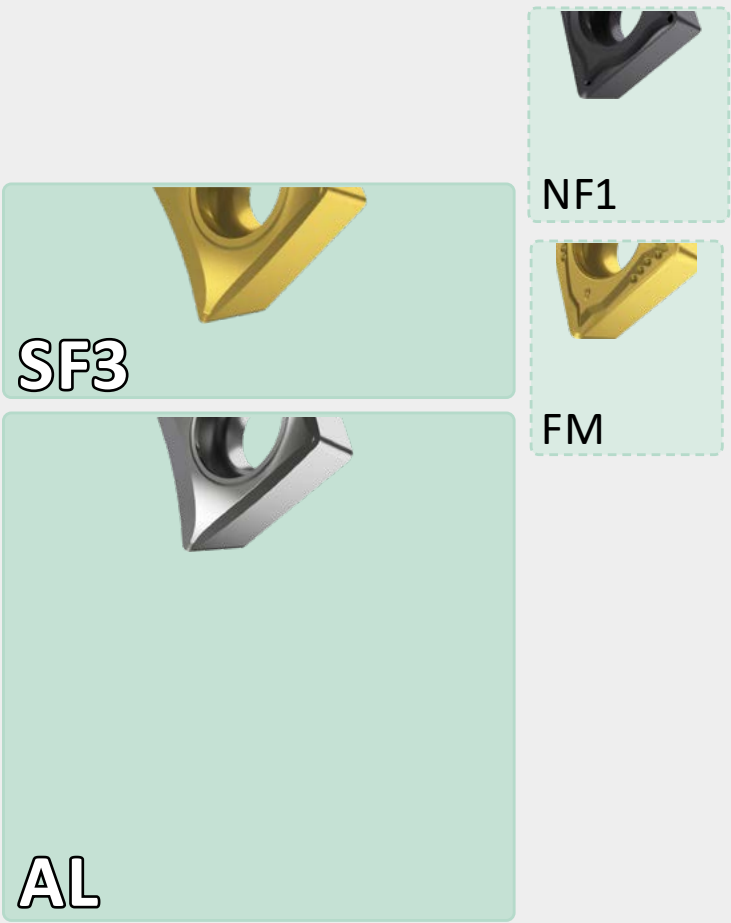
Unstable working conditions

Stable working conditions

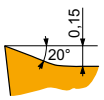
Thin -walled and slim workpieces

1st choice

Possible use



	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

SF3		Very positive design for fine and finish machining, super alloys, stainless steels and non ferrous materials, potentially steel, cast irons and hard materials, continuous cuts
AL		Highly positive design for fine finish to rough machining, aluminium, aluminium alloys and other non ferrous materials, potentially super alloys, continuous cuts

S

Very unstable working conditions

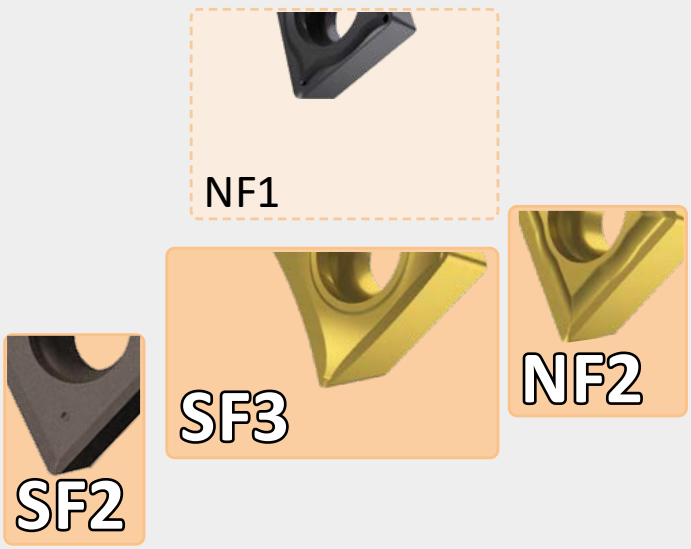
Unstable working conditions

Stable working conditions

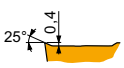
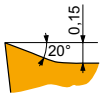
Thin -walled and slim workpieces

1st choice

Possible use



	FF	F	M	R	HR
f ⇨	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

SF2		Very positive design for fine and finish machining, super alloys, potentially stainless steels, steels and non ferrous materials, continuous cuts
SF3		Very positive design for fine and finish machining, super alloys, stainless steels and non ferrous materials, potentially steel, cast irons and hard materials, continuous cuts
NF2		Positive design for fine-finish to semi rough machining, stainless steels and super alloys, continuous cuts

H

1st choice

Possible use

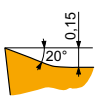
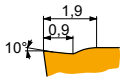
Very unstable working conditions

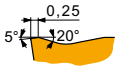
Unstable working conditions

Stable working conditions

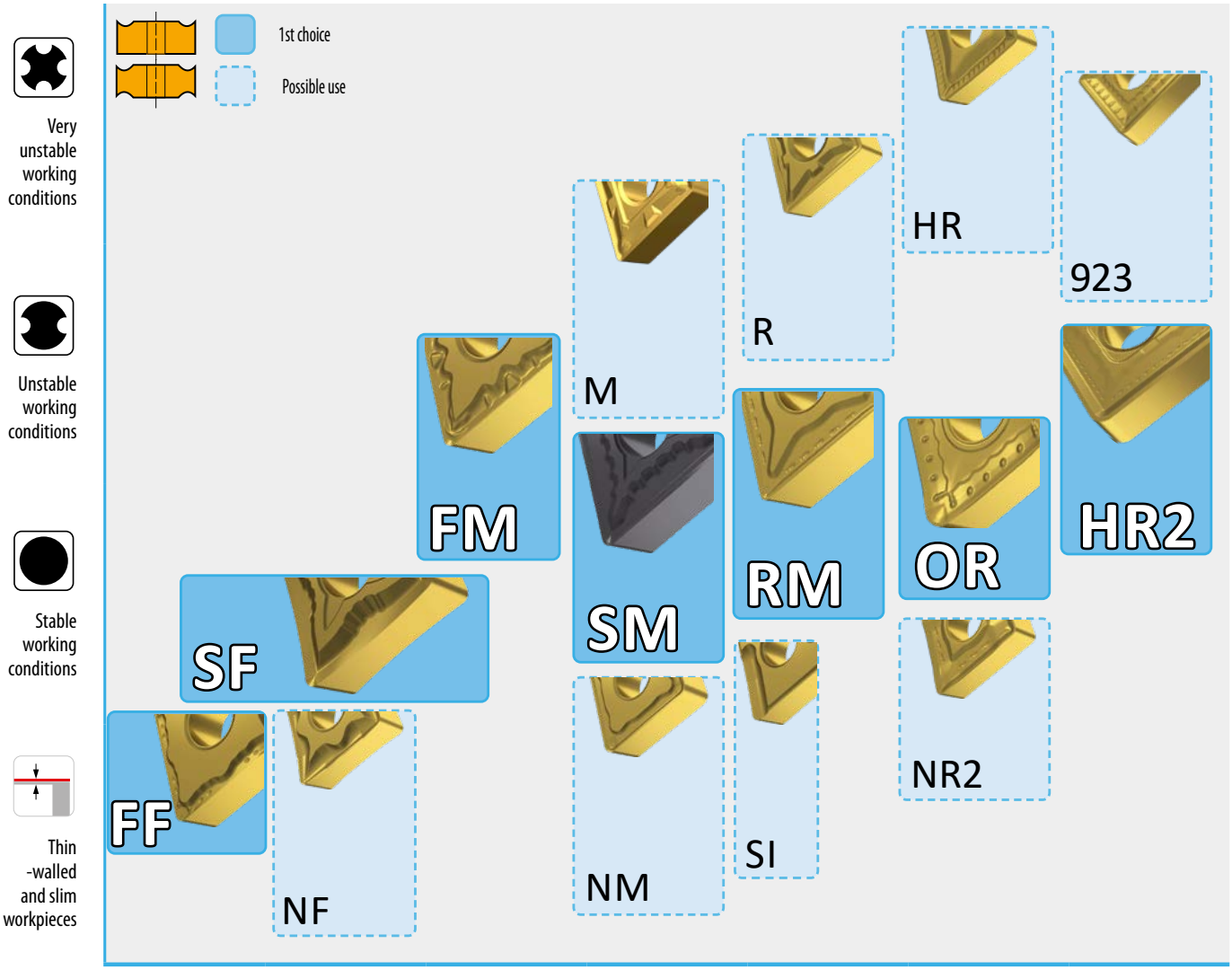
Thin -walled and slim workpieces

	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

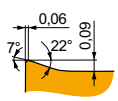
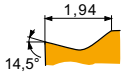
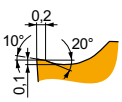
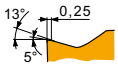
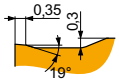
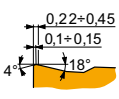
SF3		Very positive design for fine and finish machining, super alloys,stainless steels and non ferrous materials, potentially steel, cast irons and hard materials, continuous cuts
NF1		Positive design for fine-finish to medium machining, stainless steels and super alloys, potentially steels, non ferrous and hard materials, continuous cuts
.CMW		Designed for fine finish to semi rough machining, cast irons, potentially hard materials, continuous and slightly interrupted cuts

RM3		Designed for rough machining, cast irons, potentially steels, stainless steels and hard materials, continuous and interrupted cuts

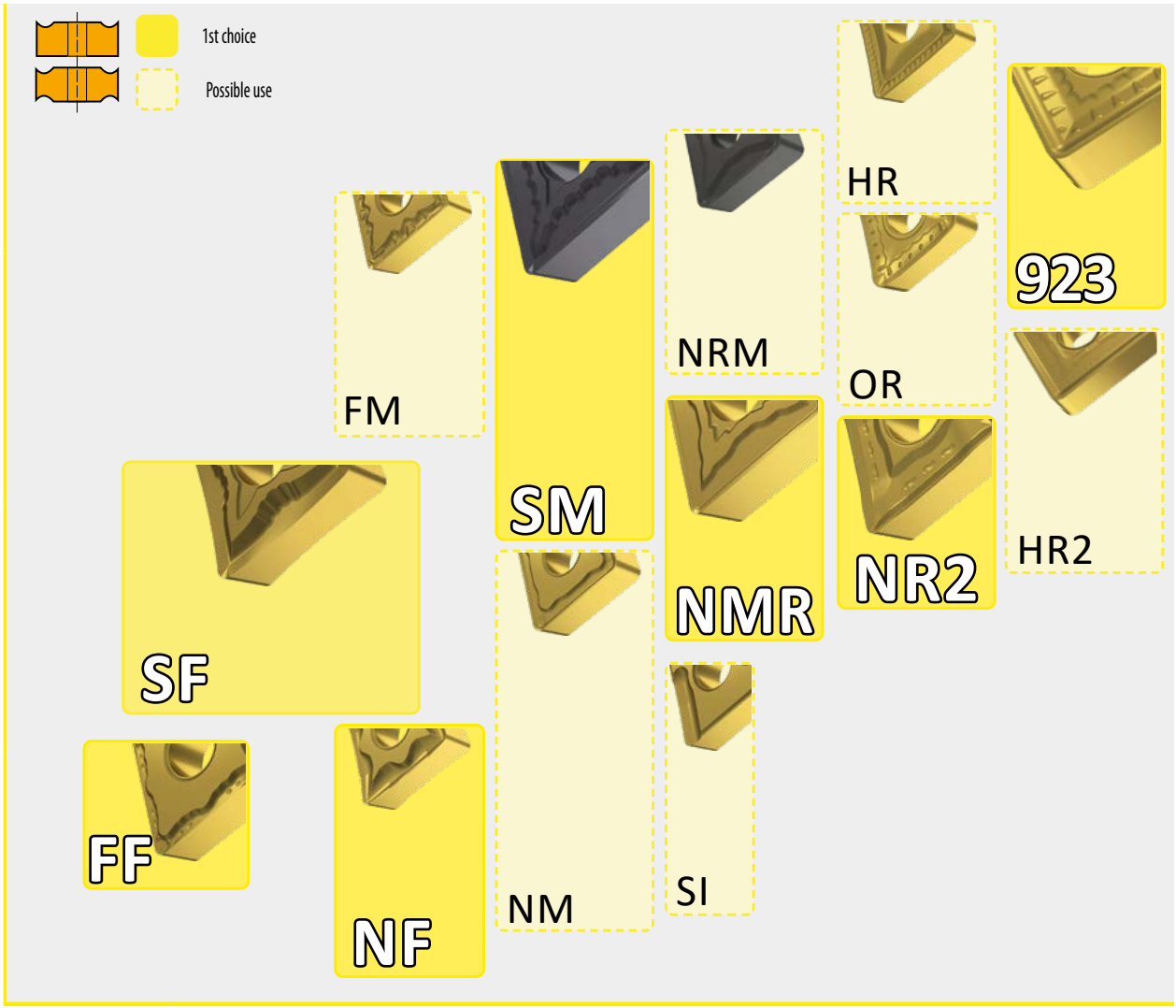
P



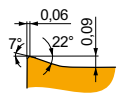
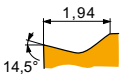
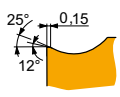
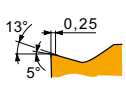
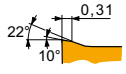
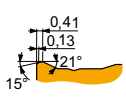
	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

FF		Highly positive geometry designed for fine finish machining, stainless steel and steel, potentially cast irons, continuous cuts
SF		Versatile positive geometry designed for fine finish machining, steels, stainless steels, cast irons and super alloys and hard materials, potentially non ferous materials and for machining thin walls, with continuous cuts
FM		Positive geometry designed for finish to semi-rough machining, steel and cast irons, potentially and super alloys, continuous and moderately interrupted cuts
SM		Positive geometry designed for medium machining, stainless steels, super alloys, steels and cast irons, potentially non ferrous and hard materials and for machining thin walls, continuous and interrupted cuts
RM		Designed for semi-rough and rough machining, steels, stainless steels and cast irons, potentaillly super alloys, continuous and interrupted cuts
OR		Designed for finish to heavy rough machining, steels and cast irons, potentially stainless steel and super alloys, continuous and interrupted cuts

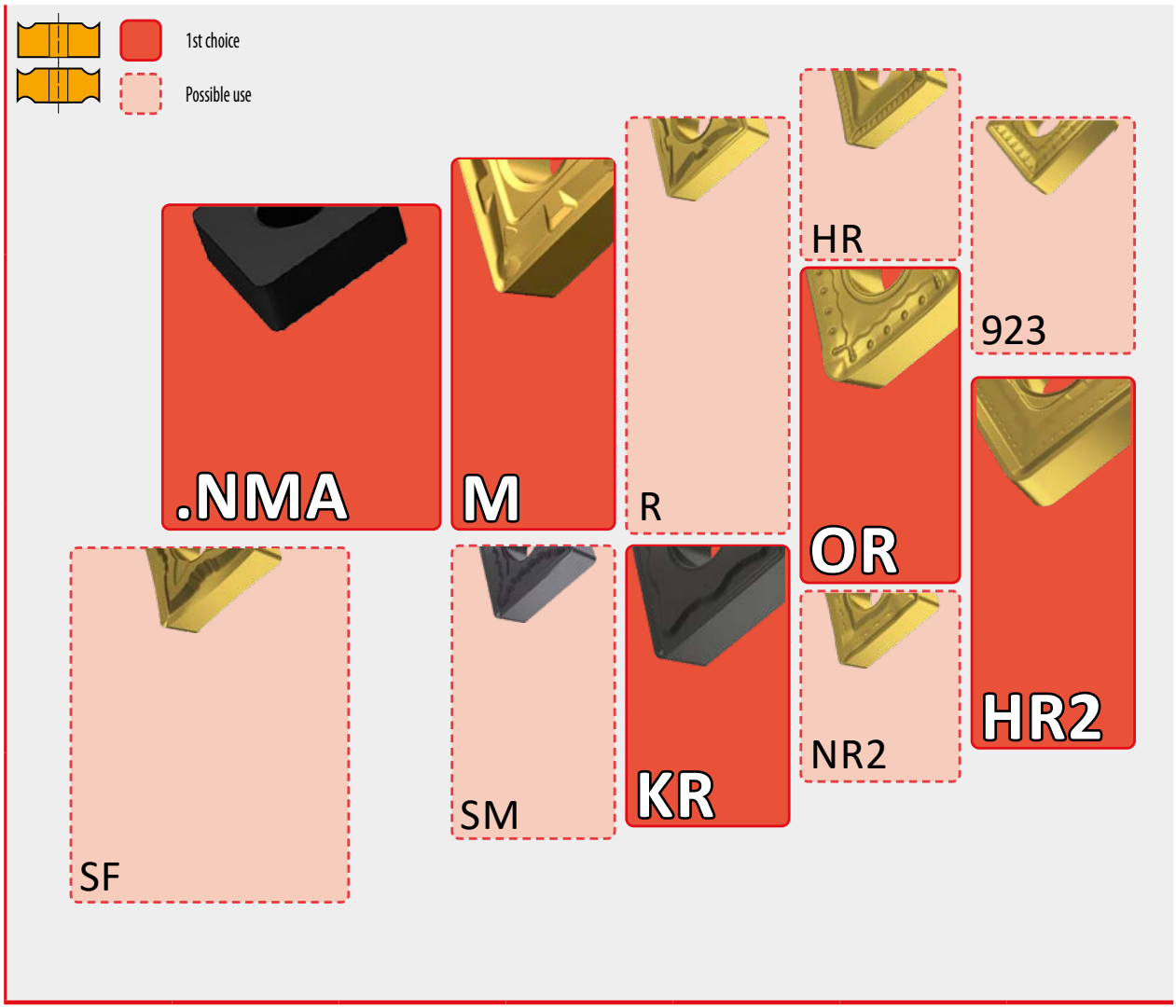
M



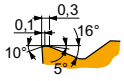
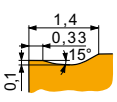
	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

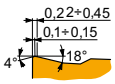
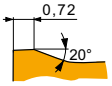
FF		Highly positive geometry designed for fine finish machining, stainless steel and steel, potentially cast irons, continuous cuts
SF		Versatile positive geometry designed for fine finish machining, steels, stainless steels, cast irons and super alloys and hard materials, potentially non ferous materials and for machining thin walls, with continuous cuts
NF		Highly positive design for fine finish and medium machining, stainless steels. steel, potentially cast irons, non ferrous materials and super alloys, continuous cuts
SM		Positive geometry designed for medium machining, stainless steels, super alloys, steels and cast irons, potentially non ferrous and hard materials and for machining thin walls, continuous and interrupted cuts
NMR		Positive design for medium to rough machining, stainless steels as well as soft steels and super alloys, continuous cuts
NR2		Designed for finish to rough machining, stainless steels and steels, potentially cast irons and super alloys, continuous and interrupted cuts

K



	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

.NMA		Designed for fine finish to semi rough machining, cast irons, potentially hard materials, continuous and slightly interrupted cuts
M		Designed for finish and semi-rough machining, cast irons, potentially steels and hard materials, continuous and interrupted cuts
KR		Designed for semi-rough and rough machining, cast irons, potentially steel and hard materials, continuous and interrupted cuts

OR		Designed for finish to heavy rough machining, steels and cast irons, potentially stainless steel and super alloys, continuous and interrupted cuts
HR2		Designed for rough to heavy rough machining with high feeds, steels and cast irons, potentially stainless steels, continuous and interrupted cuts

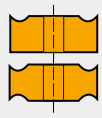
N

Very unstable working conditions

Unstable working conditions

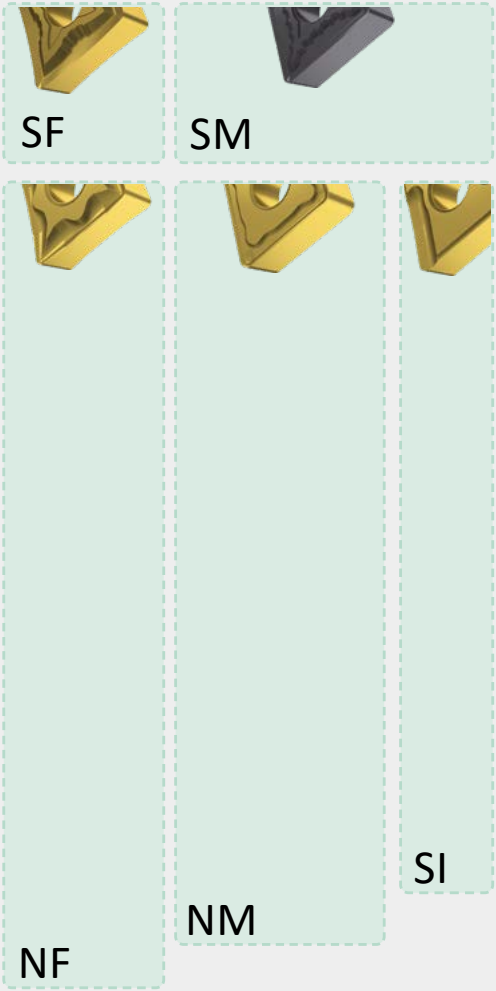
Stable working conditions

Thin -walled and slim workpieces

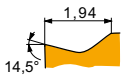
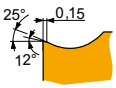
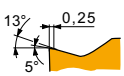
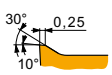
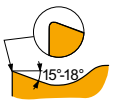


1st choice

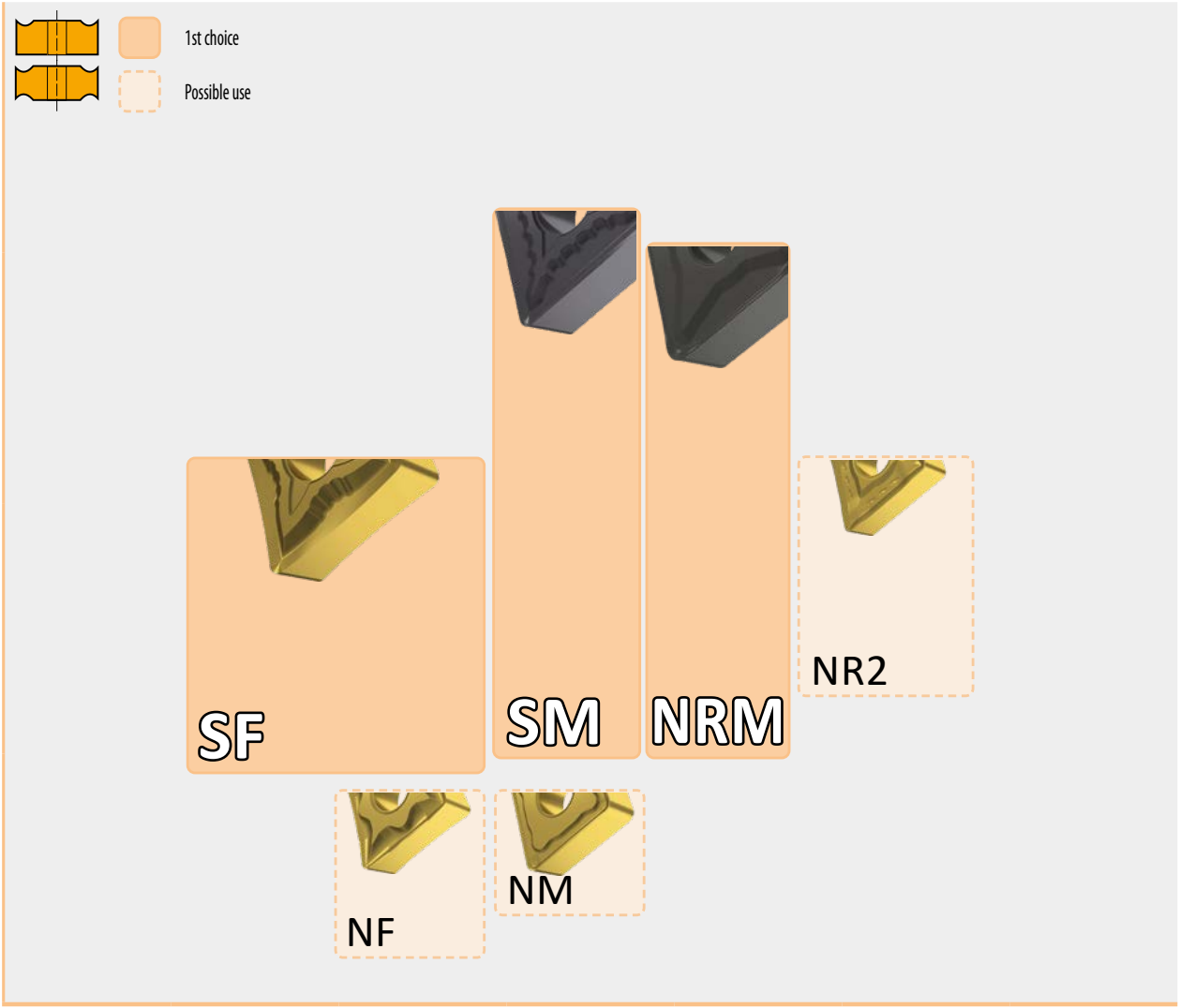
Possible use



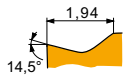
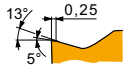
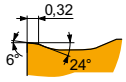
	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

SF		Versatile positive geometry designed for fine finish machining, steels, stainless steels, cast irons and super alloys and hard materials, potentially non ferous materials and for machining thin walls, with continuous cuts
NF		Highly positive design for fine finish and medium machining, stainless steels. steel, potentially cast irons, non ferrous materials and super alloys, continuous cuts
SM		Positive geometry designed for medium machining, stainless steels, super alloys, steels and cast irons, potentially non ferrous and hard materials and for machining thin walls, continuous and interrupted cuts
NM		Highly positive design for fine finish, medium and rough machining, stainless steels, steels, potentially non ferrrous materials and super alloys, continuous cuts
SI		Positive geometry for fine finish to semi-rough machining, steels, stainless steels and cast irons and potentially non ferrous materials, continuous cuts

S



	FF	F	M	R	HR
f ⇨	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

SF		Versatile positive geometry designed for fine finish machining, steels, stainless steels, cast irons and super alloys and hard materials, potentially non ferous materials and for machining thin walls, with continuous cuts
SM		Positive geometry designed for medium machining, stainless steels, super alloys, steels and cast irons, potentially non ferrous and hard materials and for machining thin walls, continuous and interrupted cuts
NRM		Positive design for semi-rough and rough machining, stainless steel, soft steels and super alloys, continuous cuts

H

Very unstable working conditions

Unstable working conditions

Stable working conditions

Thin -walled and slim workpieces

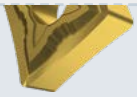
1st choice

Possible use

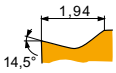
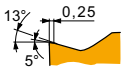

.NMA

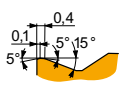

R

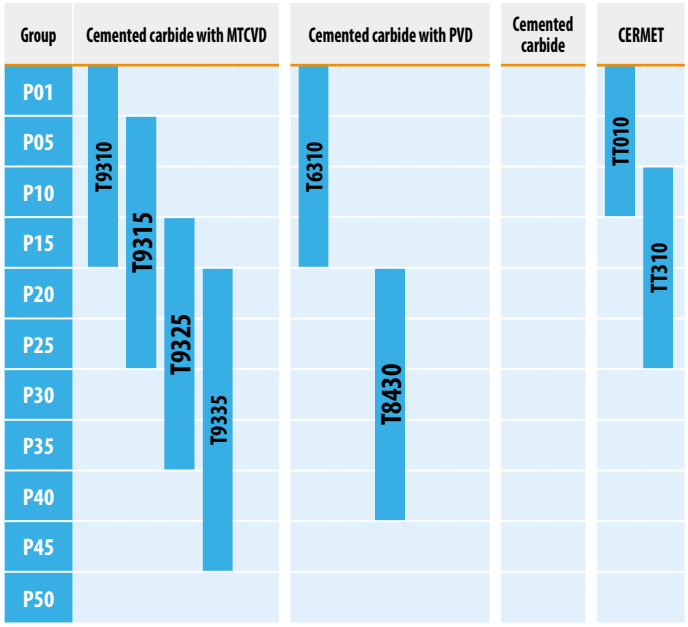

SM

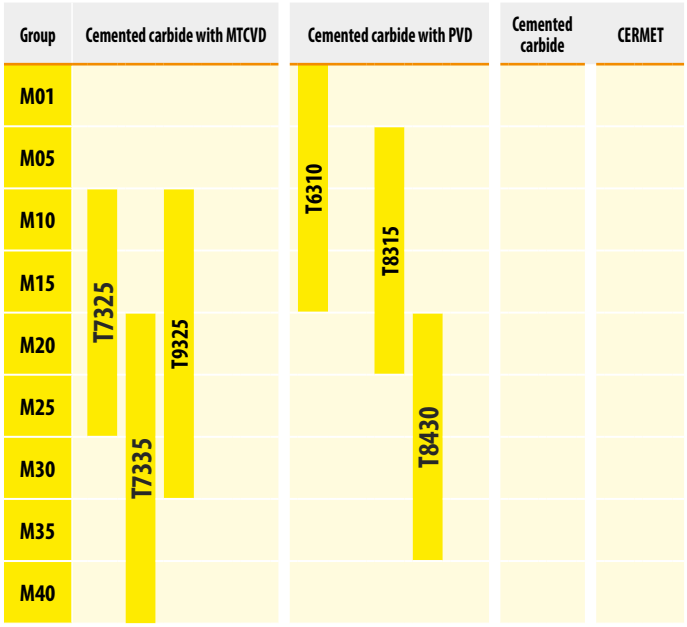

SF

	FF	F	M	R	HR
f	0.05 – 0.2 mm/rev	0.05 – 0.2 mm/rev	0.2 – 0.4 mm/rev	0.4 – 1.0 mm/rev	> 1.0 mm/rev
a_p	0.05 – 2 mm	0.05 – 2 mm	2 – 4 mm	4 – 10 mm	> 10 mm

SF		Versatile positive geometry designed for fine finish machining, steels, stainless steels, cast irons and super alloys and hard materials, potentially non ferous materials and for machining thin walls, with continuous cuts
SM		Positive geometry designed for medium machining, stainless steels, super alloys, steels and cast irons, potentially non ferrous and hard materials and for machining thin walls, continuous and interrupted cuts
.NMA		Designed for fine finish to semi rough machining, cast irons, potentially hard materials, continuous and slightly interrupted cuts

R		Designed for semi-rough and rough machining, cast irons, potentially steel and hard materials, continuous and interrupted cuts


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
P01
P05
P10
P15
P20
P25
P30
P35
P40
P45
P50
T9310
T9315
T9325
T9335
T6310
T8430
TT010
TT310


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
M01
M05
M10
M15
M20
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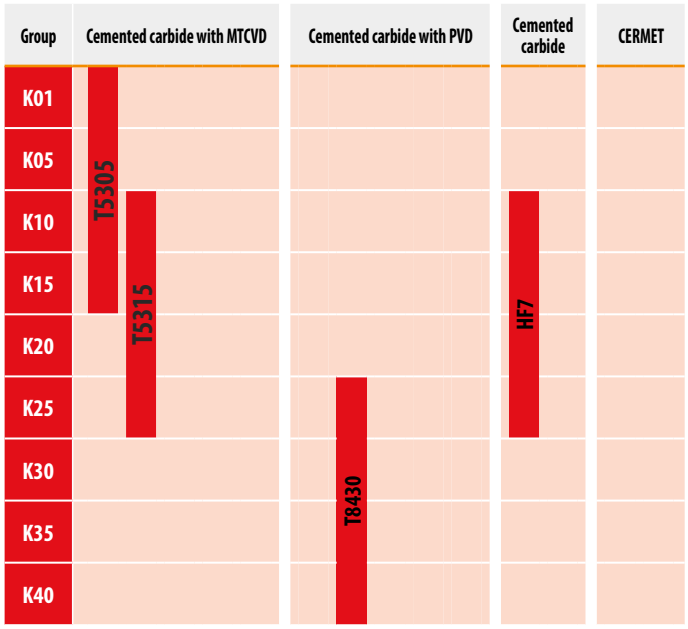
T6310
T8315
T8430


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
K01
K05
K10
K15
K20
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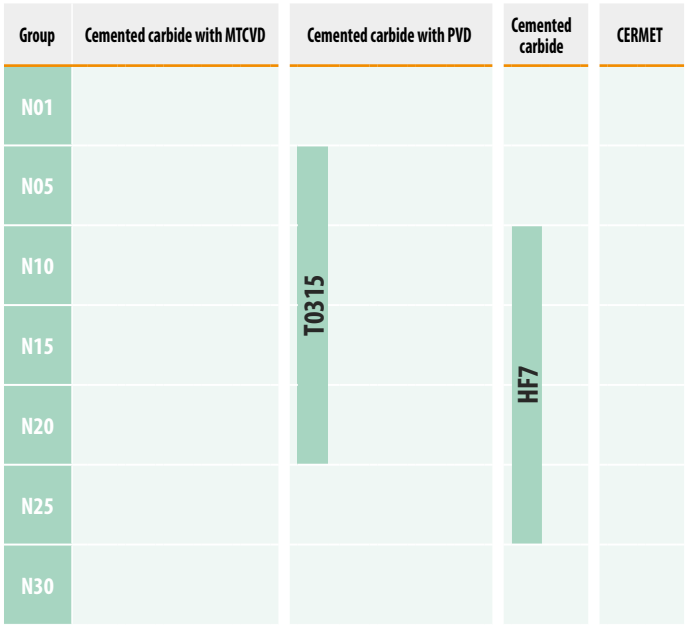
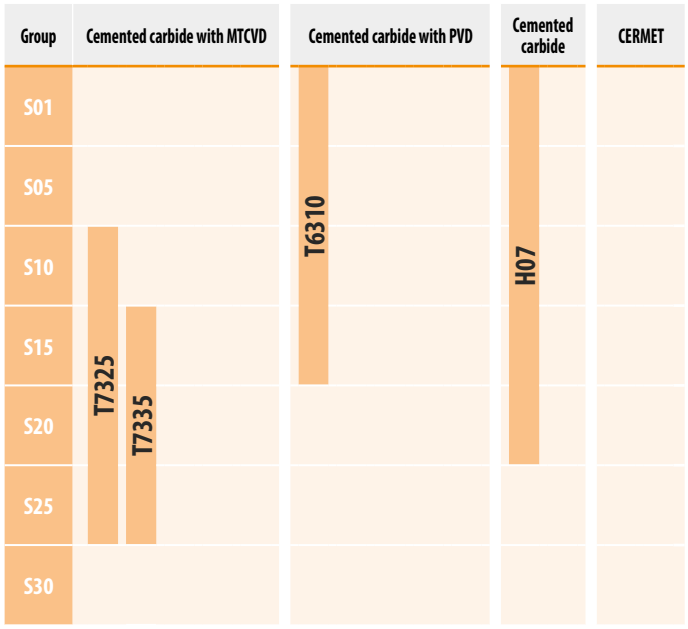
K35
K40
T5305
T5315
T8430
HF7


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
N01
N05
N10
N15
N20
N25
N30
T0315
HF7


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
S01
S05
S10
S15
S20
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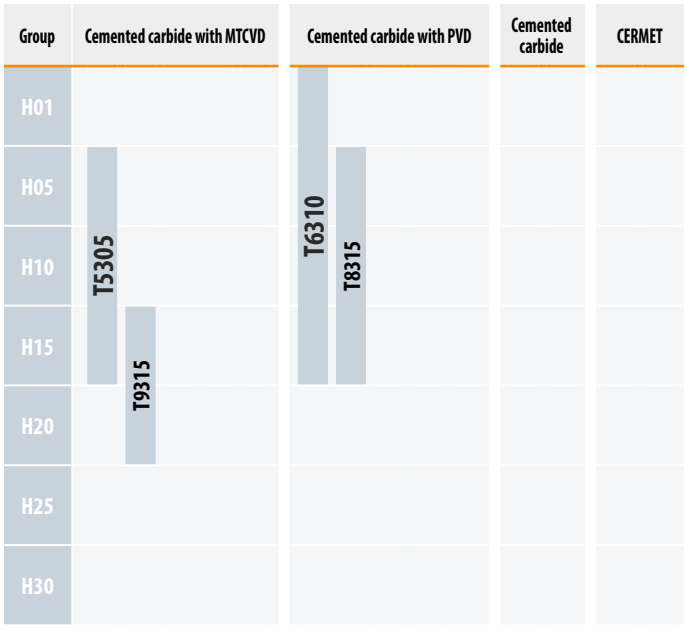
T7325
T7335
T6310
H07


Group
Cemented carbide with MTCVD
Cemented carbide with PVD
Cemented carbide
CERMET
H01
H05
H10
H15
H20
H25
H30
T5305
T9315
T6310
T8315

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
T9310	P01 - P15 K05 - K20 H10 - H20	■ ◪ ◪				MT-CVD		FGM	+ +	Grade with high abrasion resistance which can be used for slightly interrupted cutting. It will be used for finishing or semi-roughing operations. This material can also be used for roughing operations provided the machine-tool-workpiece configuration is sufficiently rigid.
T9315	P05 - P25 K05 - K25 H10 - H20	■ ◪ ◪				MT-CVD		FGM	+ +	A versatile grade with excellent wear resistance properties even under intense cutting conditions. It can also be used for operations with interrupted cuts. With it's well balanced properties this grade can be first choice for a wide range of turning operations. Not suited to low cutting speeds.
T9325	P15 - P35 M10 - M30 K15 - K35 S10 - S20	■ ■ ◪ ◪				MT-CVD		FGM	+ +	From a technological perspective this is an extremely versatile grade with high resistance to mechanical damage in adverse cutting conditions and retains excellent wear resistance. The correct application of this material requires high cutting speeds.
T9335	P20 - P45 M15 - M40 S15 - S25	■ ■ ◪				MT-CVD		FGM	+ + +	One of the toughest grades which is especially suitable for adverse cutting conditions at medium to high feed rates and medium cutting speeds. Compared to its predecessors, M15 – M40 it is not only tougher, but also more abrasion resistant which will be useful when using intensive cutting conditions.
T7325	P15 - P35 M10 - M25 S10 - S25	◪ ■ ■				MT-CVD		FGM	+ + +	One of the most universal turning grades. Especially designed for stainless steel machining. Optimal balance between wear resistance and performance reliability. Suitable for broad variety of application in turning operations.
T7335	P20 - P40 M20 - M40 S15 - S25	◪ ■ ■				MT-CVD		FGM	+ + +	Grade with functionally graded substrate, featuring very high operational reliability and very good wear-resistance. It is best suited to use in the machining of very tough M20 – M40 materials.
T5305	P05 - P15 K01 - K15 H05 - H15	◪ ■ ◪				MT-CVD		H	+	Grade with very high resistance to chemical wear; suitable for finishing operations using high cutting speeds. With its high abrasion resistance, it is also suitable for productive K01 – K15, machining of hardened and treated materials.
T5315	P10 - P25 K10 - K25 H15 - H25	◪ ■ ◪				MT-CVD		H	+	Grade intended primarily for productive machining which has high abrasion resistance and good operational reliability. Due to its properties, this material is particularly suitable for roughing and finishing operations for good or slightly adverse cutting conditions.
6640	P20 - P40 M20 - M35 K25 - K40	■ ■ ■				MT-CVD		H	+ + +	One of the toughest turning materials which can be used especially in roughing operations, or where operational reliability under adverse cutting conditions is a priority. Another ideal choice for machines working with low to medium cutting speeds and medium to high feed rates.

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
T8315	P05 - P20 M05 - M20 K05 - K25 N05 - N25 S05 - S15 H05 - H15	◪ ■ ■ ■ ◪ ■				PVD		submicron H	+ +	Grade featuring excellent abrasion resistance while maintaining above average operational reliability, it is suitable for machining at medium to high cutting speeds in short chipping harder materials.
T8430	P20 - P40 M20 - M35 K25 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ◪ ◪ ◪ ◪				PVD		submicron H	+ + +	Undoubtedly the most versatile cutting material, this is useful for machining of all types of machined materials and is practically applicable in almost all types of turning operations. Its main benefits are its high operational reliability and very good frictional properties; it is therefore suitable for applications at medium and lower cutting speeds.
T8330	P25 - P40 M20 - M35 K20 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ■ ◪ ◪ ◪				PVD		submicron H	+ + +	Versatile cutting material, this is useful for machining of all types of machined materials and is practically applicable in almost all types of turning operations. Its main benefits are its high operational reliability and very good frictional properties; it is therefore suitable for applications at medium and lower cutting speeds.
T8345	P30 - P50 M20 - M40 K30 - K40 S20 - S30	■ ◪ ◪ ◪				PVD		submicron H	+ + +	This is the toughest turning grade, which is intended mainly for machining under the worst cutting conditions and in applications with the highest requirements for operating reliability. Because of these properties, this material is recommended for lower cutting speeds.
T6310	P01 - P15 M01 - M15 K05 - K20 N05 - N20 S01 - S15 H01 - H15	■ ■ ■ ■ ■ ■				PVD		ultra submicron H	+ + +	High wear resistant turning grade with top PVD coating. Suitable for finishing operation and applications, where sharp cutting edge together with high flank wear resistance is of high importance
T0315	N05 - N20	■				PVD			+ +	Submicron grade for turning non-ferrous metals and their alloys with a balance of wear resistance and toughness. It is provided with a unique coating with excellent friction properties.
HF7	M10 - M20 K10 - K25 N10 - N25	◪ ■ ■				×		submicron H	+ +	Uncoated grade which is primarily designed for machining non-ferrous metals; but can also be used for other machined materials (except steel). This material can be used in turning, milling, and even boring.
H07	M05 - M15 K10 - K25 N10 - N30 S01 - S20	◪ ■ ■ ■				×		submicron H	+ +	Uncoated turning grade suitable for machining applications where oxidation resistance is not dominating criterion of tool life. Designed for machining of Ti-based alloys. Grade exhibits high strength of cutting edge together with good wear resistance.
TT310	P10 - P25 M15 - M25	■ ◪				PVD		cermet	+ / –	Coated cermet used for fine and finish turning of carbon and alloy steels (including stainless). Its excellent friction properties are further improved by the coating applied using the PVD technique.
TT010	P01 - P10 M01 - M10	■ ◪				×		cermet	+ / –	Uncoated cermet, which is suitable for fine machining of all types of steel (including stainless) at very low feed rates. Its main advantage is the minimal radius of the cutting edge and its high resistance to physical and chemical wear mechanisms.

TURNING GRADES – NAVIGATOR

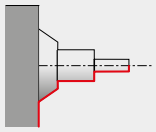
Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
TC100	K01 - K15	■				×		ceramics	– -	Ceramic grade for cast iron machining. Suitable for machining with high cutting speed at stable conditions.
TB310	K01 - K10	■				×		CBN	– -	CBN grade for machining of hardened materials. Suitable for machining with high cutting speed and small feeds at stable conditions.
	S05 - S10	◪								
	H01 - H10	◪								
PD1	N05 - N25	■				×		PKD	-	PKD grade for turning non-ferrous materials. Ideal choice for working with high cutting speed and small feeds at stable conditions.
333TN	P45 - P50	■				PVD		HSS	+ + +	Special grade composed of HSS substrate and thin hard PVD coating. The most tough cutting grade in the portfolio. Inserts with this grade are one and only used for slotting of key groove.
	M35 - M40	◪								
	K35 - K40	◪								

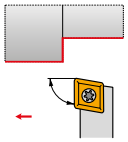
Substrat	
H	WC-Co based substrate
submicron H	WC-Co based substrate fine grained (< 1 µm)
ultra submicron H	WC-Co based substrate very fine grained (< 0.5 µm)
FGM	Functionally graded substrate
Cermet	Cemented carbide without WC
ceramics	Cutting ceramics
PCD	Polycrystalline Diamond
CBN	Cubic Boron Nitride
HSS	High speed steel

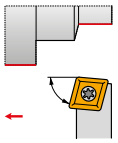
Coating	
MT-CVD	Medium-temperature chemical method of coating
PVD	Low-temperature physical method of coating
×	Uncoated grade

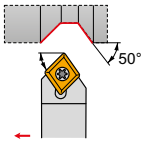
Benefits of cutting fluid	
+ + +	Use of coolant is essential
+ +	Highly recommended
+	Recommended
+ / –	Optional
– -	Do not use coolant
–	Coolant not recommended

ISO TURNING – EXTERNAL
LONG AND UNSTABLE COMPONENTS (positive inserts)

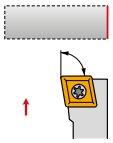


SCAC(RL) EXT
90° | CC..
06
09

08×08
16×16
70 | 60 – 69

SCBC(RL) EXT
75° | CC..
09
12

12×12
25×25
71 | 60 – 69

SCDCR EXT
45° | CC..
06


10×10
72 | 60 – 69

SCFC(RL) EXT
90° | CC..
06
09

08×08
16×16
73 | 60 – 69

SCLC(RL) EXT
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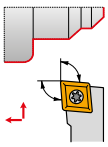
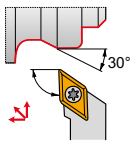
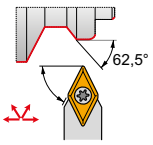
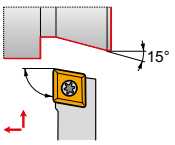
06
08
09
12

08×08
25×25
74 | 60 – 69

SDJC(RL) EXT
93° | DC..
07
11
15


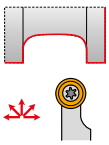
08×08
25×25
94 | 86 – 93

SDNCN EXT
62°30´ | DC..
7
11


08×08
25×25
95 | 86 – 93

SEGC(RL) EXT
90° | EC..
08


12×12
16×16
107 | 104 – 106

SRDC(RL) EXT
RC..
08

20×20
32×25
126 | 118 – 123

SRDCN EXT
RC..
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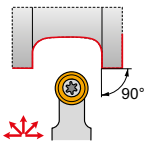
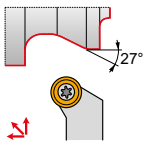
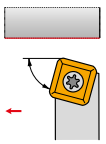
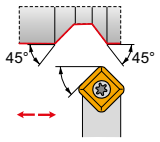
08
10
12
16


12×12
32×25
127 | 118 – 123

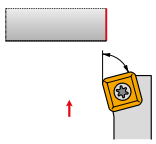
SRSC(RL) EXT
RC..
06
08
10
12
16


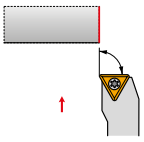
12×12
32×25
128 | 118 – 123

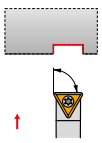
SSBC(RL) EXT
75° | SC..
09
12
25
38

12×12
60×60
139 | 134 – 138

SSDCN EXT
45° | SC..
09
12


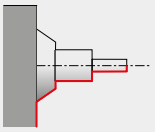
12×12
25×25
140 | 134 – 138

SSKC(RL) EXT
75° | SC..
09
12

12×12
25×25
141 | 134 – 138

STFC(RL) EXT
90° | TC..
11
16

16×16
25×25
155 | 149 – 154

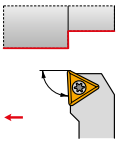
STFC(RL)-A EXT
90° | TC..
11

20×20
156 | 149 – 154

ISO TURNING – EXTERNAL
LONG AND UNSTABLE COMPONENTS (positive inserts)



STJC(RL) EXT

93° | TC..



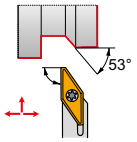
11
16

16×16
25×25

157 | 149 – 154

SVAC(RL)-DC EXT

90° | VC..



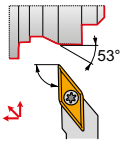
13

10×10
25×25

193 | 186 – 192

SVGC(RL) EXT

90° | VC..



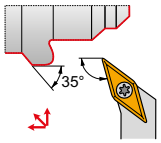
07

08×08
16×16

194 | 186 – 192

SVHB(C)(RL) EXT

107°30´ | VB, VC..



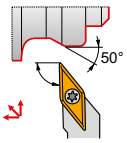
11
16

16×16
25×25

172, 195 | 168 – 171, 186 – 192

SVJB(C)(RL) EXT

93° | VB, VC..



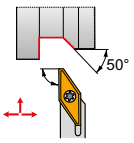
11
13
16

12×12
32×25

173, 196 | 168 – 171, 186 – 192

SVJC(RL)-DC EXT

93° | VC..



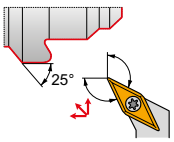
13

10×10
25×25

197 | 186 – 192

SVPB(C)(RL) EXT

117°30´ | VB, VC..



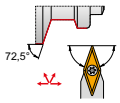
11
16

16×16
32×25

174, 198 | 168 – 171, 186 – 192

SVVB(C)N EXT

72°30´ | VB, VC..



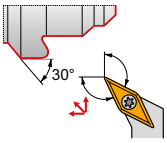
11
13
16

12×12
32×25

175, 199 | 168 – 171, 186 – 192

SVXB(C)(RL) EXT

98° | VB, VC..



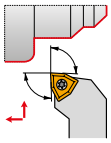
11
13
16

12×12
32×25

176, 200 | 168 – 171, 186 – 192

SWLC(RL) EXT

95° | WC..



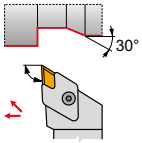
06
08

16×16
25×25

215 | 212 – 214

CKJN(RL) EXT

93° | KN..



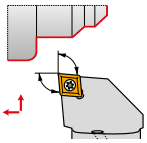
16

20×20
32×25

287 | 284 – 286

C.-SCLC(RL) EXT

95° | CC..



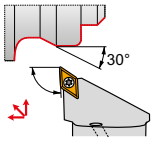
09
12

20
32

75 | 60 – 69

C.-SDJC(RL) EXT

93° | DC..



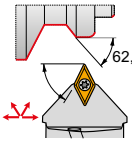
11

C3
C5

96 | 86 – 93

C.-SDNCN EXT

62°30´ | DC..



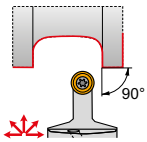
11

C4
C5

97 | 86 – 93

C.-SRDCN EXT

RC..



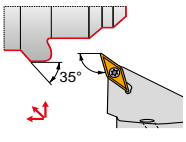
10
12

C4
C5

130 | 118 – 123

C.-SVHB(RL) EXT

107°30´ | VB, VC..



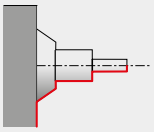
16

C4
C6

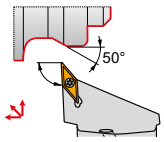
177, 201 | 168 – 171, 186 – 192

ISO TURNING – EXTERNAL

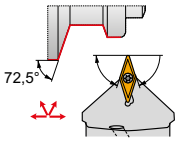
LONG AND UNSTABLE COMPONENTS (positive inserts)



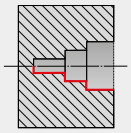
C.-SVJB(RL) EXT

93°	VB, VC..
	11 16
 C3 / C6	
178, 202	168 – 171 186 – 192

C.-SVVBN EXT

72°30´	VB, VC..
	16
 C4 / C6	
179, 203	168 – 171 186 – 192

ISO TURNING – INTERNAL
LONG AND UNSTABLE COMPONENTS (positive inserts)



SCFC(RL) INT
90° | CC..
06
ØDmin 13/16
76 | 60 – 69

SCKC(RL) INT
75° | CC..
06 09 12
ØDmin 11/40
77 | 60 – 69

SCLC(RL) INT
95° | CC..
06 09 12
ØDmin 11/40
78 | 60 – 69

SCXC(RL) INT
40° | CC..
06
ØDmin 13/20
80 | 60 – 69

SDQC(RL) INT
107°30´ | DC..
07 11
ØDmin 13/40
98 | 86 – 93

SDUC(RL) INT
93° | DC..
07 11
ØDmin 13/40
99 | 86 – 93

SDUC(RL)-E INT
93° | DC..
07 11
ØDmin 13/40
100 | 86 – 93

SDZC(RL) INT
93° | DC..
07 11
ØDmin 27/65
101 | 86 – 93

SELP(RL) INT
95° | EP..
05
ØDmin 8/16
111 | 110

SELP(RL)-E INT
95° | EP..
05
ØDmin 8/16
112 | 110

SEUC(RL) INT
93° | EC..
06 08
ØDmin 11/32
108 | 104 – 106

SEUP(RL) INT
93° | EP..
05
ØDmin 8.3
113 | 110

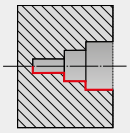
SEXP(RL) INT
52°30´ | EP..
05
ØDmin 9.5/16
114 | 110

SEXP(RL)-E INT
52°30´ | EP..
05
ØDmin 9.5/16
115 | 110

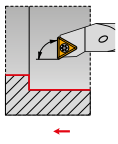
SSSC(RL) INT
45° | SC..
09
ØDmin 25/32
144 | 134 – 138

STFC(RL) INT
90° | TC..
06 09 11 16
ØDmin 8.5/40
158 | 149 – 154

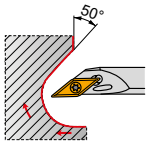
ISO TURNING – INTERNAL
LONG AND UNSTABLE COMPONENTS (positive inserts)



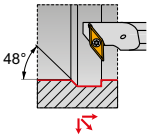
STFC(RL)-E INT

90°	TC..
	06 09 11
ØDmin 8.5 / 20	
160	149 – 154

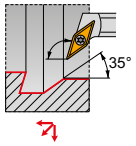
SVJB(RL) INT

93°	VB, VC..
	11
ØDmin 25 / 32	
180, 204	168 – 171 186 – 192

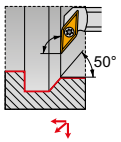
SVLC(RL) INT

95°	VC..
	13
ØDmin 27 / 43	
205	186 – 192

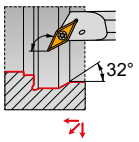
SVQB(C)(RL) INT

107°30´	VB, VC..
	11 13 16
ØDmin 20 / 50	
181, 206	168 – 171 186 – 192

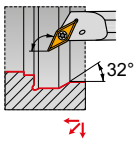
SVUB(C)(RL) INT

93°	VB, VC..
	11 13 16
ØDmin 20 / 50	
182, 207	168 – 171 186 – 192

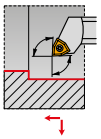
SVXC(RL) INT

113°	VC..
	07
ØDmin 12.5 / 17.5	
208	186 – 192

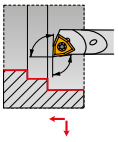
SVXC(RL)-E INT

113°	VC..
	07
ØDmin 12.5 / 17.5	
209	186 – 192

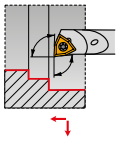
SWLC(RL) INT

95°	WC..
	06 08
ØDmin 25 / 40	
216	212 – 214

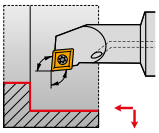
SWUC(RL) INT

93°	WC..
	02
ØDmin 5.8 / 7.8	
217	212 – 214

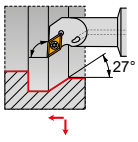
SWUC(RL)-E INT

93°	WC..
	02
ØDmin 5.8 / 7.8	
218	212 – 214

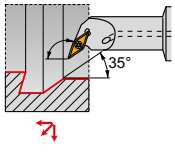
C.-SCLC(RL) INT

95°	CC..
	09
ØDmin C3 / C5	
81	60 – 69

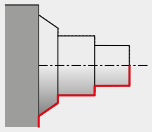
C.-SDUC(RL) INT

93°	DC..
	07 11
ØDmin 20 / 32	
102	86 – 93

C.-SVQB(C)(RL) INT

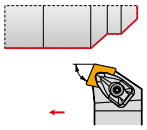
108°	VB, VC..
	16
ØDmin 33	
183, 210	168 – 171 186 – 192

ISO TURNING – EXTERNAL
SHORT AND STABLE COMPONENTS (negative inserts)



DCBN(RL) EXT

75°



CN..

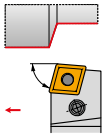
12
16
19

20×20
40×40

240 | 222 – 239

PCBN(RL) EXT

75°



CN..

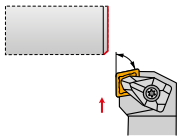
12
16
19
25

20×20
50×50

245 | 222 – 239

DCKN(RL) EXT

75°



CN..

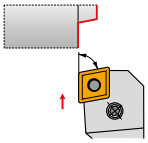
12
16

20×20
32X32

242 | 222 – 239

PCKN(RL) EXT

75°



CN..

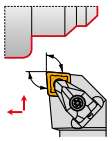
12
16
19

20×20
40×40

246 | 222 – 239

DCLN(RL) EXT

95°



CN..

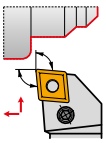
09
12
16
19

16×16
40×40

243 | 222 – 239

PCLN(RL) EXT

95°



CN..

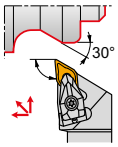
12
16
19
25

20×20
50×50

247 | 222 – 239

DDJN(RL) EXT

93°



DN..

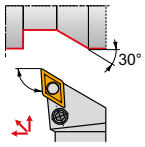
11
15

20×20
32×32

273 | 260 – 272

PDJN(RL) EXT

93°



DN..

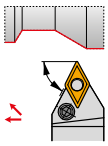
11
15

20×20
32×32

274 | 260 – 272

PDNN(RL) EXT

62°30´



DN..

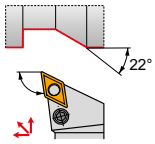
11
15

20×20
32×25

275 | 260 – 272

PDXN(RL) EXT

98°



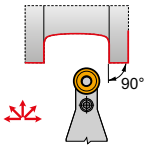
DN..

15

20×20
32×25

276 | 260 – 272

PRDCN EXT



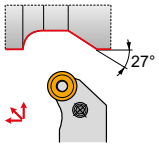
RC..

16
20
25
32

32×25
50×50

124 | 118 – 123

PRSC(RL) EXT



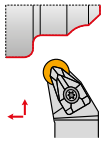
RC..

16
20
25

32×25
40×40

125 | 118 – 123

DRSN(RL) EXT



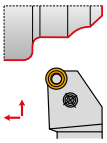
RN..

12

25×25

295 | 294

PRSN(RL) EXT



RN..

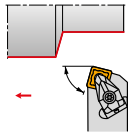
12
15
19

25×25
40×40

296 | 294

DSBN(RL) EXT

75°



SN..

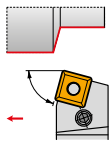
12
15
19

20×20
40×40

313 | 300 – 312

PSBN(RL) EXT

75°



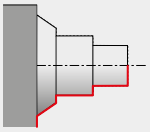
SN..

12
15
19
25

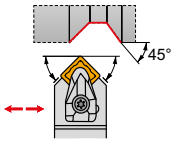
20×20
50×50

318 | 300 – 312

ISO TURNING – EXTERNAL
SHORT AND STABLE COMPONENTS (negative inserts)



DSDNN EXT
45°



20×20
40×40

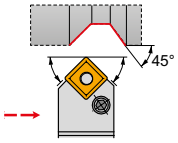
315

SN..

12
15
19
25

300 – 312

PSDNN EXT
45°



20×20
50×50

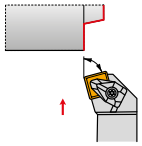
320

SN..

12
15
19
25

300 – 312

DSKN(RL) EXT
75°



25×25
32×32

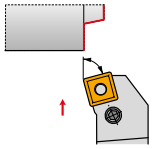
316

SN..

12
19

300 – 312

PSKN(RL) EXT
75°



20×20
50×50

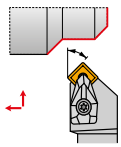
321

SN..

12
15
19
25

300 – 312

DSSN(RL) EXT
45°



20×20
40×40

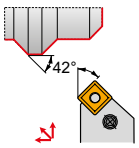
317

SN..

12
15
19

300 – 312

PSSN(RL) EXT
45°



20×20
50×50

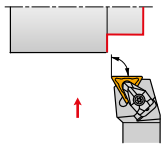
323

SN..

12
15
19
25

300 – 312

DTFN(RL) EXT
90°



20×20
25×25

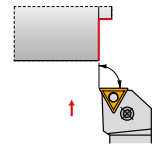
345

TN..

16
22

334 – 344

PTFN(RL) EXT
90°



16×16
40×40

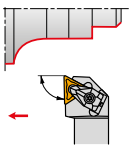
348

TN..

16
22
27

334 – 344

DTGN(RL) EXT
90°



20×20
32×25

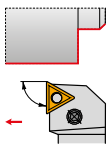
346

TN..

16
22

334 – 344

PTGN(RL) EXT
90°



16×16
40×40

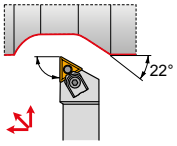
349

TN..

16
22
27

334 – 344

MTJN(RL) EXT
93°



16×16
32×32

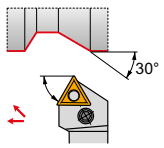
347

TN..

16
22

334 – 344

PTTN(RL) EXT
60°



20×20
32×25

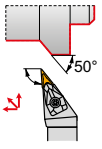
350

TN..

16
22

334 – 344

DVJN(RL) EXT
93°



20×20
32×25

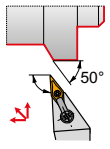
360

VN..

16

356 – 376

MVJN(RL) EXT
93°



20×20
32×25

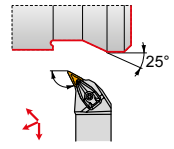
362

VN..

16

356 – 376

DVPN(RL) EXT
62°30´



20×20
32×25

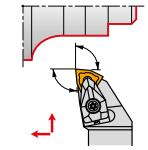
361

VN..

16

356 – 376

DWLN(RL) EXT
95°



16×16
40×40

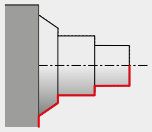
377

WN..

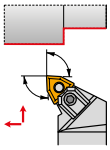
06
08
10
13

366 – 376

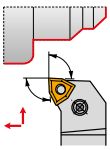
ISO TURNING – EXTERNAL
SHORT AND STABLE COMPONENTS (negative inserts)



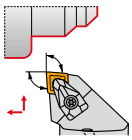
MWLN(RL) EXT

95°	WN..
	08
25×25 40×40	
379	366 – 376

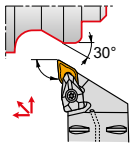
PWLN(RL) EXT

95°	WN..
	06 08
16×16 32×25	
380	366 – 376

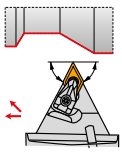
C.-DCLN(RL) EXT

95°	CN..
	12 16 19
C3 C8	
249	222 – 239

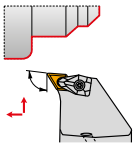
C.-DDJN(RL) EXT

93°	DN..
	11 15
C4 C6	
277	260 – 272

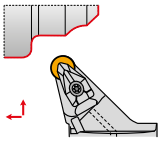
C.-DDNNN EXT

62.5°	DN..
	15
C5 C6	
278	260 – 272

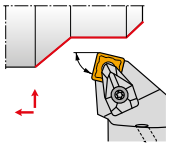
C.-DDUN(RL) EXT

93°	DN..
	15
C5 C6	
279	260 – 272

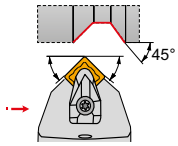
C.-DRSN(RL) EXT

	RN..
	12
C6	
297	294

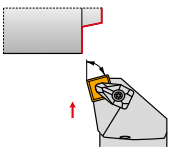
C.-DSRN(RL) EXT

75°	SN..
	12 19
C4 C6	
326	300 – 312

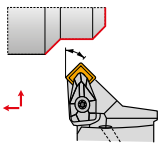
C.-DSDNN EXT

45°	SN..
	12 19
C4 C6	
324	300 – 312

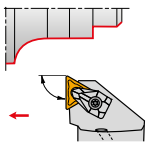
C.-DSKN(RL) EXT

75°	SN..
	12
C4	
325	300 – 312

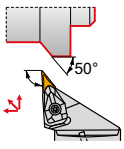
C.-DSSN(RL) EXT

45°	SN..
	12
C4 C5	
327	300 – 312

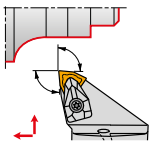
C.-DTJN(RL) EXT

93°	TN..
	16
C4 C5	
351	334 – 344

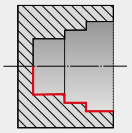
C.-DVJN(RL) EXT

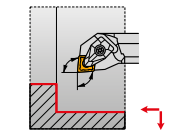
93°	VN..
	16
C4 C6	
363	356 – 376

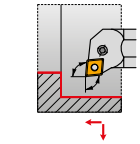
C.-DWLN(RL) EXT

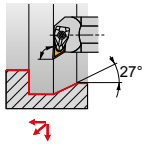
95°	WN..
	06 08
C4 C6	
381	366 – 376

ISO TURNING – INTERNAL
SHORT AND STABLE COMPONENTS (negative inserts)

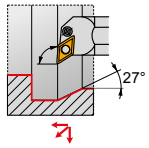


DCLN(RL) INT
95° | CN..
09
12

ØDmin 32/50
254 | 222 – 239

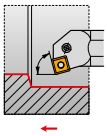
PCLN(RL) INT
95° | CN..
09
12
16
19

ØDmin 20/80
255 | 222 – 239

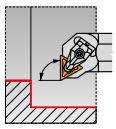
DDUN(RL) INT
93° | DN..
11
15


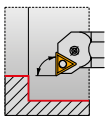
ØDmin 25/50
280 | 260 – 272

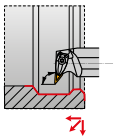
PDUN(RL) INT
93° | DN..
11
15


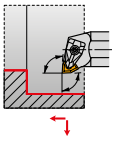
ØDmin 25/60
281 | 260 – 272

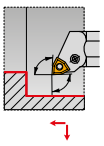
PSKN(RL) INT
93° | SN..
11
15

ØDmin 32/80
331 | 300 – 312

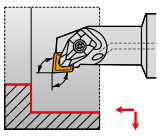
DTFN(RL) INT
90° | TN..
16
22

ØDmin 32/50
352 | 334 – 344

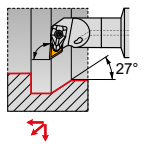
PTFN(RL) INT
90° | TN..
16
22

ØDmin 32/50
353 | 334 – 344

DVUN(RL) INT
VN..
16

ØDmin 50
364 | 356 – 376

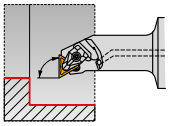
DWLN(RL) INT
95° | WN..
06
08

ØDmin 32/63
382 | 366 – 376

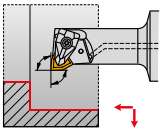
PWLN(RL) INT
95° | WN..
06
08

ØDmin 20/80
383 | 366 – 376

C.-DCLN(RL) INT
95° | CN..
09
12
16

ØDmin 25/50
257 | 222 – 239

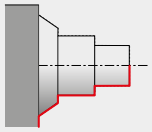
C.-DDUN(RL) INT
93° | DN..
11


ØDmin 12
282 | 260 – 272

C.-DTFN(RL) INT
91° | TN..
16

ØDmin 32
354 | 334 – 344

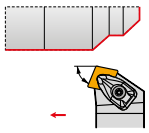
C.-DWLN(RL) INT
95° | WN..
06
08

ØDmin 27/33
385 | 366 – 376

ISO TURNING – HEAVY ROUGHING – EXTERNAL
FIXED TOOL HOLDERS



DCBN(RL) EXT

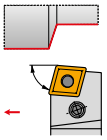
75°



CN..	
19	
40×40	
240	222 – 239

PCBN(RL) EXT

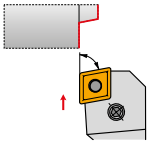
75°



CN..	
19 25	
40×40 50×50	
245	222 – 239

PCKN(RL) EXT

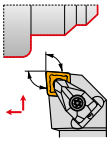
75°



CN..	
19	
40×40	
246	222 – 239

DCLN(RL) EXT

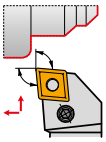
95°



CN..	
19	
40×40	
243	222 – 239

PCLN(RL) EXT

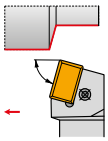
95°



CN..	
19 25	
40×40 50×50	
247	222 – 239

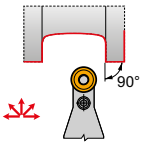
PLBN(RL) EXT

75°



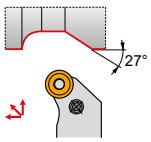
LN..	
40 50	
60×60	
290	289

PRDCN EXT



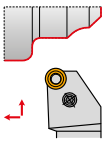
RC..	
20 25 32	
40×40 50×50	
124	118 – 123

PRSC(RL) EXT



RC..	
16 25	
40×40	
125	118 – 123

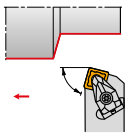
PRSN(RL) EXT



RN..	
19	
40×40	
296	294

DSBN(RL) EXT

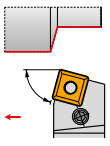
75°



SN..	
19	
40×40	
313	300 – 312

PSBN(RL) EXT

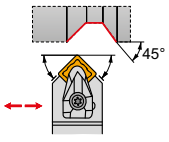
75°



SN..	
19 25	
40×40 50×50	
318	300 – 312

DSDNN EXT

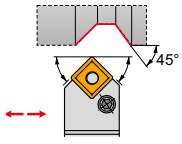
45°



SN..	
19 25	
40×40	
315	300 – 312

PSDNN EXT

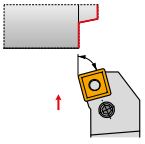
45°



SN..	
19 25	
40×40 50×50	
320	300 – 312

PSKN(RL) EXT

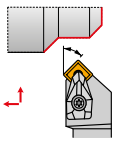
75°



SN..	
19 25	
40×40 50×50	
321	300 – 312

DSSN(RL) EXT

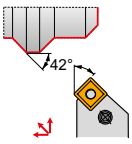
45°



SN..	
19	
40×40	
317	300 – 312

PSSN(RL) EXT

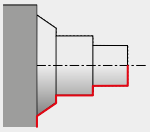
45°



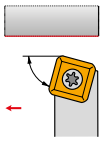
SN..	
19 25	
40×40 50×50	
323	300 – 312

ISO TURNING – HEAVY ROUGHING – EXTERNAL

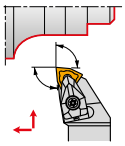
FIXED TOOL HOLDERS



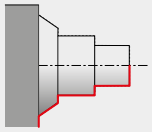
SSBC(RL) EXT

75°	SC..
	25 38
40×40 60×60	
139	134 – 138

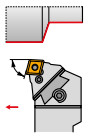
DWLN(RL) EXT

95°	WN..
	13
40×40	
377	366 – 376

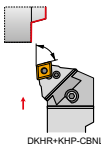
ISO TURNING – HEAVY ROUGHING – EXTERNAL
HEAD (KH)



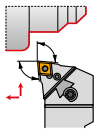
KHP-CBNR + DKH(RL)

75°	CN..
 DKHR+KHP-CBNR	25
40×50 60×80	
251, 253	222 – 239

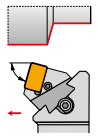
KHP-CBNL + DKH(RL)

75°	CN..
 DKHR+KHP-CBNL	25
40×50 60×80	
251, 253	222 – 239

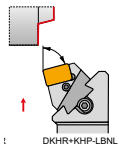
KHP-CLNR/L + DKH(RL)

95°	CN..
 DKHR+KHP-CLNR	19 25
40×50 60×80	
252, 253	222 – 239

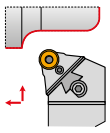
KHP-LBNR + DKH(RL)

75°	LN..
 DKHR+KHP-LBNR	40
40×50 60×80	
291, 292	289

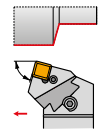
KHP-LBNL + DKH(RL)

75°	LN..
 DKHR+KHP-LBNL	40
40×50 60×80	
291, 292	289

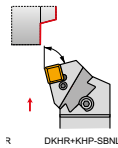
KHP-RSCR/L + DKH(RL)

	RC..
 DKHR+KHP-RSCR	20 25 32
40×50 60×80	
131, 132	118 – 123

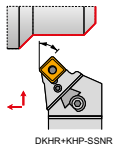
KHP-SBNR + DKH(RL)

75°	SN..
 DKHR+KHP-SBNR	25
40×50 60×80	
328, 330	300 – 312

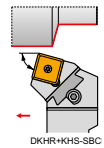
KHP-SBNL + DKH(RL)

75°	SN..
 DKHR+KHP-SBNL	25
40×50 60×80	
328, 330	300 – 312

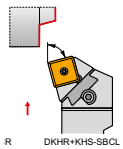
KHP-SSNR/L + DKH(RL)

45°	SN..
 DKHR+KHP-SSNR	19 25
40×50 60×80	
329, 330	300 – 312

KHS-SBCR + DKH(RL)

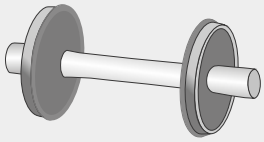
75°	SC..
 DKHR+KHS-SBC	25 38
40×50 60×80	
142, 143	134 – 138

KHS-SBCL + DKH(RL)

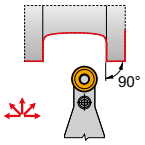
75°	SC..
 DKHR+KHS-SBCL	25 38
40×50 60×80	
142, 143	134 – 138

ISO TURNING – HEAVY ROUGHING – EXTERNAL

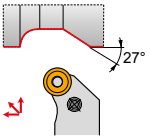
RAILWAY WHEEL MACHINING



PRDCN EXT

	RC..
	20 25 32
 32×25 50×50	
124	118 – 123

PRSC(RL) EXT

	RC..
	20 25
 32×25 40×40	
125	118 – 123

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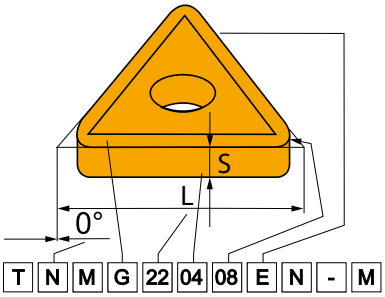


	1	2	3	4
ISO	T	N	U	N
	T	N	M	G
ANSI	T	N	U	
	T	N	M	G

1 Insert shape

H	O	P	R
S	T	C 80°	D 55°
E 75°	M 86°	V 35°	W 80°
L	A 85°	B 82°	K 55°

2 Insert clearance angle

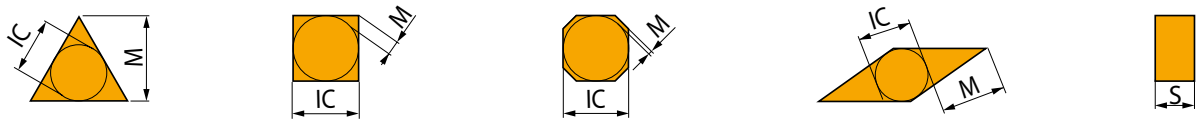
A 3°		B 5°	
C 7°		D 15°	
E 20°		F 25°	
G 30°		N 0°	
P 11°		O Special	

4 Insert type

N	
R	
F	
A	
M	
G	
W	40° – 60°
T	
Q	
U	
B	70° – 90°
H	
C	
J	
X	Special

3 Tolerances

	[mm]			[″]		
	M (±)	S (±)	IC (±)	M (±)	S (±)	IC (±)
A	0.005	0.025	0.025	.0002″	.001″	.0010″
F	0.005	0.025	0.013	.0002″	.001″	.0005″
C	0.013	0.025	0.025	.0005″	.001″	.0010″
H	0.013	0.025	0.013	.0005″	.001″	.0005″
E	0.025	0.025	0.025	.0010″	.001″	.0010″
G	0.025	0.130	0.025	.0010″	.005″	.0010″
J	0.005	0.025	0.05 – 0.13	.0002″	.001″	.002 – 0.005″
K	0.013	0.025	0.05 – 0.13	.0005″	.001″	.002 – 0.005″
L	0.025	0.025	0.05 – 0.13	.0010″	.001″	.002 – 0.005″
M	0.08 – 0.18	0.130	0.05 – 0.13	.003 – 0.007″	.005″	.002 – 0.005″
N	0.08 – 0.18	0.025	0.05 – 0.13	.003 – 0.007″	.001″	.002 – 0.005″
U	0.05 – 0.38	0.130	0.05 – 0.13	.005 – 0.015″	.005″	.003 – 0.010″

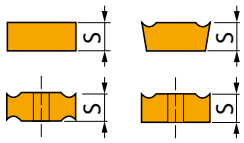


5	6	7	8	9		10
22	04	08			-	
22	04	08	E	N		M
5	6	7	8	9		10
4	3	2			-	
4	3	2	E	N		M

5 – Insert cutting edge length (insert size)

d=IC [mm]	[in]	H	O	P	S	T	C	D	E	M	V	W	R	K
3.97					03	06		04			06	02		
	5/32"	1.2												
4.76					04	08	04	05	04	04	08	L3		
	3/16"	1.5												
5.56					05	09	05	06	05	05	09	03		
	7/32"	1.8												
6.35		03	02	04	08	11	06	07	08	08	11	04	06	
	1/4"	2												
7.94		04	03	05	07	13	08	09	06	07	13	05	07	
	5/16"	2.5												
9.525		05	04	07	09	16	09	11	09	09	16	06	09	16
	3/8"	3												
12.7		07	05	09	12	22	12	15	13	12	22	08	12	
	1/2"	4												
15.875		09	06	11	15	27	16	19	16	15	27	10	15	
	5/8"	5												
19.05		11	07	13	19	33	19	23	19	19	33	13	19	
	3/4"	6												
25.40		14	10	18	25	44	25	31	26	25	44	17	25	
	1"	8												
31.75		18	13	23	31	54	32	38	32	31	54	21	31	
	1 1/4"	10												

6 – Insert thickness



	S [mm]	S ["]
01	1.59	1/16"
T1	1.98	5/64"
02	2.38	3/32"
03	3.18	1/8"
T3	3.97	5.32"
04	4.76	3/16"
05	5.56	7/32"
06	6.35	1/4"
07	7.94	5/16"
09	9.52	3/8"

7 – Insert nose radius

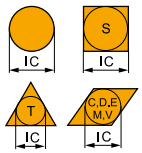
	RE [mm]	RE ["]
00	0	0"
02	0.2	1/128"
04	0.4	1/64"
08	0.8	1/32"
12	1.2	3/64"
16	1.6	1/16"
24	2.4	3/32"
32	3.2	1/8"

Round inserts

d=I.C.	
["]	00
[mm]	M0

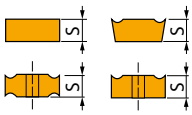
ANSI

5 – Inscribed circle



Symbol	d=I.C. [mm]	d=I.C. ["]
1	3.175	1/8"
1.2	3.969	5/32"
1.5	4.763	3/16"
1.8	5.556	7/32"
2	6.350	1/4"
2.5	7.938	5/16"
3	9.525	3/8"
4	12.700	1/2"
5	15.875	5/8"
6	19.050	3/4"
7	22.225	7/8"
8	25.400	1"
10	31.750	5/4"
12	38.100	6/4"

6 – Insert thickness



Symbol	S [mm]	S ["]
1	1.588	1/16"
1.2	1.984	5/64"
1.5	2.381	3/32"
2	3.175	1/8"
2.5	3.969	5/32"
3	4.763	3/16"
3.5	5.556	7/32"
4	6.350	1/4"
5	7.938	5/16"
6	9.525	3/8"
7	11.113	7/16"
8	12.700	1/2"
9	14.288	9/16"
10	15.875	5/8"

7 – Insert nose radius

Symbol	RE [mm]	RE ["]
0	0	0"
0.2	0.099	1/256"
0.5	0.198	1/128"
1	0.397	1/64"
2	0.794	1/32"
3	1.191	3/64"
4	1.588	1/16"
5	1.984	5/64"
6	2.381	3/32"
7	2.778	7/64"
8	3.175	1/8"
10	3.969	5/32"
12	4.763	3/16"
14	5.556	7/32"
16	6.350	1/4"

8 – Insert cutting edge design

F Sharp edges	E Rounded edges
T Edges with facet	S Rounded edges with facet
K Edges with double facet	P Rounded edges with double facet

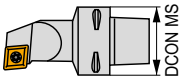
9 – Feed direction

10 – Chip breaker designation

EXTERNAL TURNING TOOLS – ISO CODE DESIGNATION

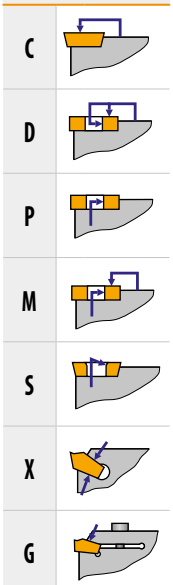
Shank tool	ISO		2	3	4	5	6		7	8	11	12		13
			P	C	L	N	R	–	32	25	L	12	–	M
PSC	ISO	1	2	3	4	5	6		9	10		12		
		C4	D	C	L	N	R	–	27	050	–	12		
Shank tool	ANSI		2	3	4	5	6		7 & 8		12	11		
			D	C	L	N	R	–	16		4	D		

1 Coupling size

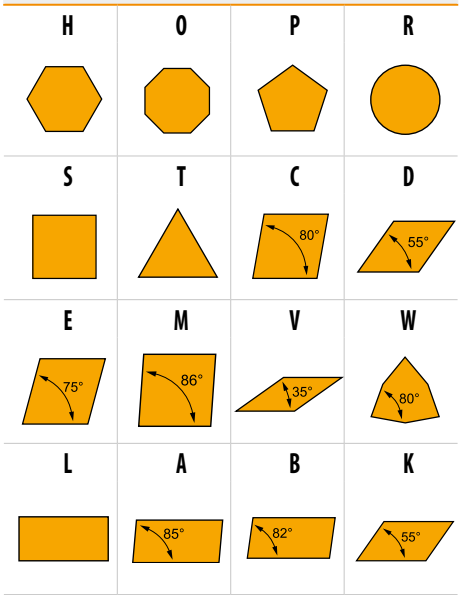


C	DCON MS
C3	32
C4	40
C5	50
C6	63
C8	80

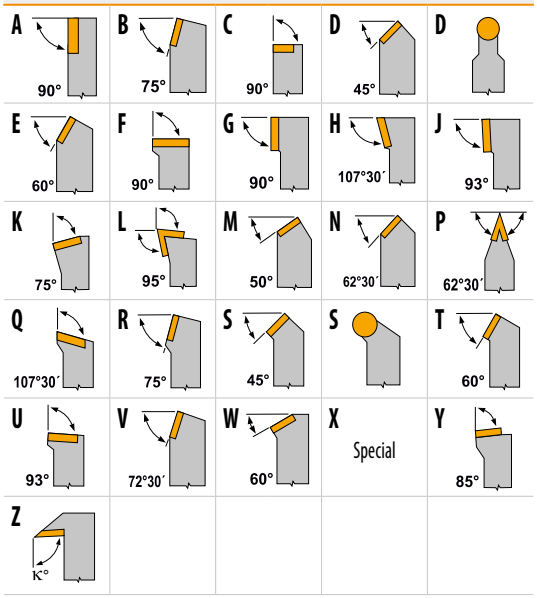
2 Clamping designation



3 Insert shape



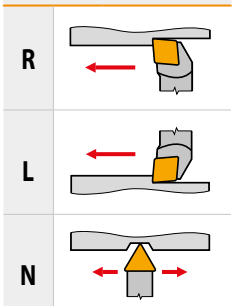
4 Holder style – cutting edge angle



5 Insert clearance angle

N	B	C	P
0°	5°	7°	11°

6 Direction of cut



7 Shank height [mm]

08	10	12	16	20	25
32	38	40	45	50	60

8 Shank width [mm]

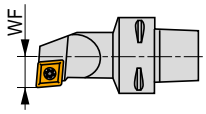
08	10	12	16	20	25
32	38	40	45	50	60

7 & 8 Shank width & Shank height [″]

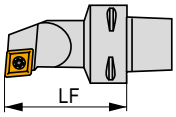
Symbol	B [″]	H [″]
05	5/16″	5/16″
06	3/8″	3/8″
08	1/2″	1/2″
10	5/8″	5/8″
12	3/4″	3/4″
16	1″	1″
85	1″	1 1/4″
86	1″	1 1/2″
20	1 1/4″	1 1/4″
24	1 1/2″	1 1/2″
32	2″	2″

For square shanks, the number is the width or height in terms of 16ths. For rectangular shanks the first digit is the width in terms of 8ths and the second digit is the height in terms of 4ths.

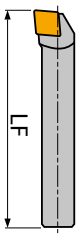
9 Functional width [mm]



10 Functional lenght [mm]



11 Holder total length



	LF [″]
A	4.000″
B	4.500″
C	5.000″
D	6.000″
E	7.000″
F	8.000″
M	4.000″
N	4.500″
R	6.000″
S	7.000″
T	8.000″

	LF [mm]
D	60
E	70
F	80
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
X	Spec.
Y	500

	15	16	17		2	3	4	5	6	12		14
ISO	A	25	T	–	P	C	L	N	L	12	–	X
ANSI	A	16	T	–	D	C	L	N	L	4		

12 / 12 – Insert cutting edge length (insert size)

d = I.C. [mm]	d = I.C. [″]	H	O	P	S	T	C	D	E	M	V	W	R	K
3.97					03	06		04			06	02		
	5/32″	1.2												
4.76					04	08	04	05	04	04	08	L3		
	3/16″	1.5												
5.56					05	09	05	06	05	05	09	03		
	7/32″	1.8												
6.35		03	02	04	08	11	06	07	08	08	11	04	06	
	1/4″	2												
7.94		04	03	05	07	13	08	09	06	07	13	05	07	
	5/16″	2.5												
9.525		05	04	07	09	16	09	11	09	09	16	06	09	16
	3/8″	3												
12.7		07	05	09	12	22	12	15	13	12	22	08	12	
	1/2″	4												
15.875		09	06	11	15	27	16	19	16	15	27	10	15	
	5/8″	5												
19.05		11	07	13	19	33	19	23	19	19	33	13	19	
	3/4″	6												
25.40		14	10	18	25	44	25	31	26	25	44	17	25	
	1″	8												
31.75		18	13	23	31	54	32	38	32	31	54	21	31	
	1 1/4″	10												

13 – Manufacturer's designation

M	Clamping system "S" with shim

14 – Manufacturer's designation

X	Special shank style
. .	
93	Z – style tool setting angle
. .	

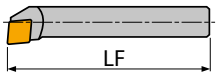
15 / 15 – Shank

S	Steel shank
A	Steel shank with coolant hole
E	Tungsten carbide shank with coolant hole

16 / 16 – Shank Ø [mm]

DCON MS [mm]		DCON MS [″]	
08	8	03	.1875″
10	10	04	.250″
12	12	05	.3125″
16	16	06	.375″
20	20	08	.500″
25	25	10	.625″
32	32	12	.750″
40	40	16	1.000″
50	50	20	1.250″
60	60	24	1.500″
		32	2.000″

17 / 17 – Holder total Length



	LF [″]
F	3.250″
H	4.000″
K	5.000″
M	6.000″
P	6.250″
Q	7.250″
R	8.000″
S	10.000″
T	12.000″
U	14.000″
V	15.750″
W	17.750″
Y	20.000″
X	Spec.

	LF [mm]
D	60
E	70
F	80
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
X	Spec.
Y	500

CARTRIDGE

1	2		3	4	5	6	7
KH	P	–	C	L	N	R	25

HOLDER

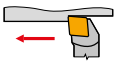
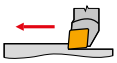
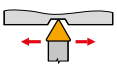
8		6	9	10	11
DKH		R	50	60	W

1 Cartridge

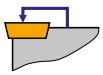
5 Insert clearance angle

N	C	P
0°	7°	11°

6 Direction of cut

R	
L	
N	

2 Clamping designation

C	
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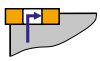
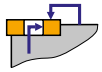
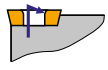
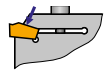
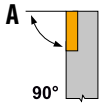
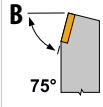
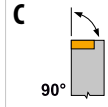
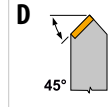
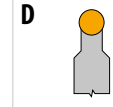
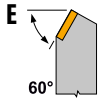
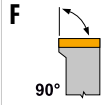
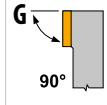
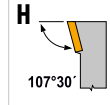
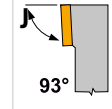
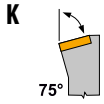
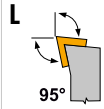
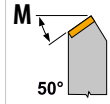
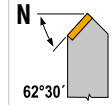
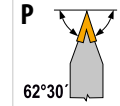
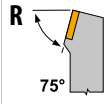
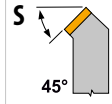
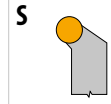
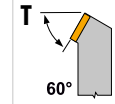
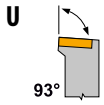
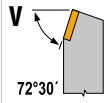
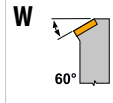
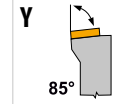
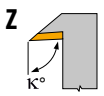
P	
M	
S	
X	
G	

3 Insert shape

S		C	
T		D	
R		K	
W		V	
L		X	Special

4 Holder style – cutting edge angle

A 	B 	C 	D 	D 
E 	F 	G 	H 	J 
K 	L 	M 	N 	P 
Q 	R 	S 	S 	T 
U 	V 	W 	X Special	Y 
Z 				

7 Insert cutting edge length (insert size)

d = I.C.		H	O	P	S	T	C	D	E	M	V	W	R	K
[mm]	[″]													
3.97					03	06		04			06	02		
	5/32″	1.2												
4.76					04	08	04	05	04	04	08	L3		
	3/16″	1.5												
5.56					05	09	05	06	05	05	09	03		
	7/32″	1.8												
6.35		03	02	04	08	11	06	07	08	08	11	04	06	
	1/4″	2												
7.94		04	03	05	07	13	08	09	06	07	13	05	07	
	5/16″	2.5												
9.525		05	04	07	09	16	09	11	09	09	16	06	09	16
	3/8″	3												
12.7		07	05	09	12	22	12	15	13	12	22	08	12	
	1/2″	4												
15.875		09	06	11	15	27	16	19	16	15	27	10	15	
	5/8″	5												
19.05		11	07	13	19	33	19	23	19	19	33	13	19	
	3/4″	6												
25.40		14	10	18	25	44	25	31	26	25	44	17	25	
	1″	8												
31.75		18	13	23	31	54	32	38	32	31	54	21	31	
	1 1/4″	10												

8 Cartridge holder

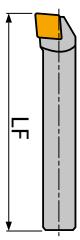
9 Shank height [mm]

08	10	12	16	20	25
32	40	50	60	70	80

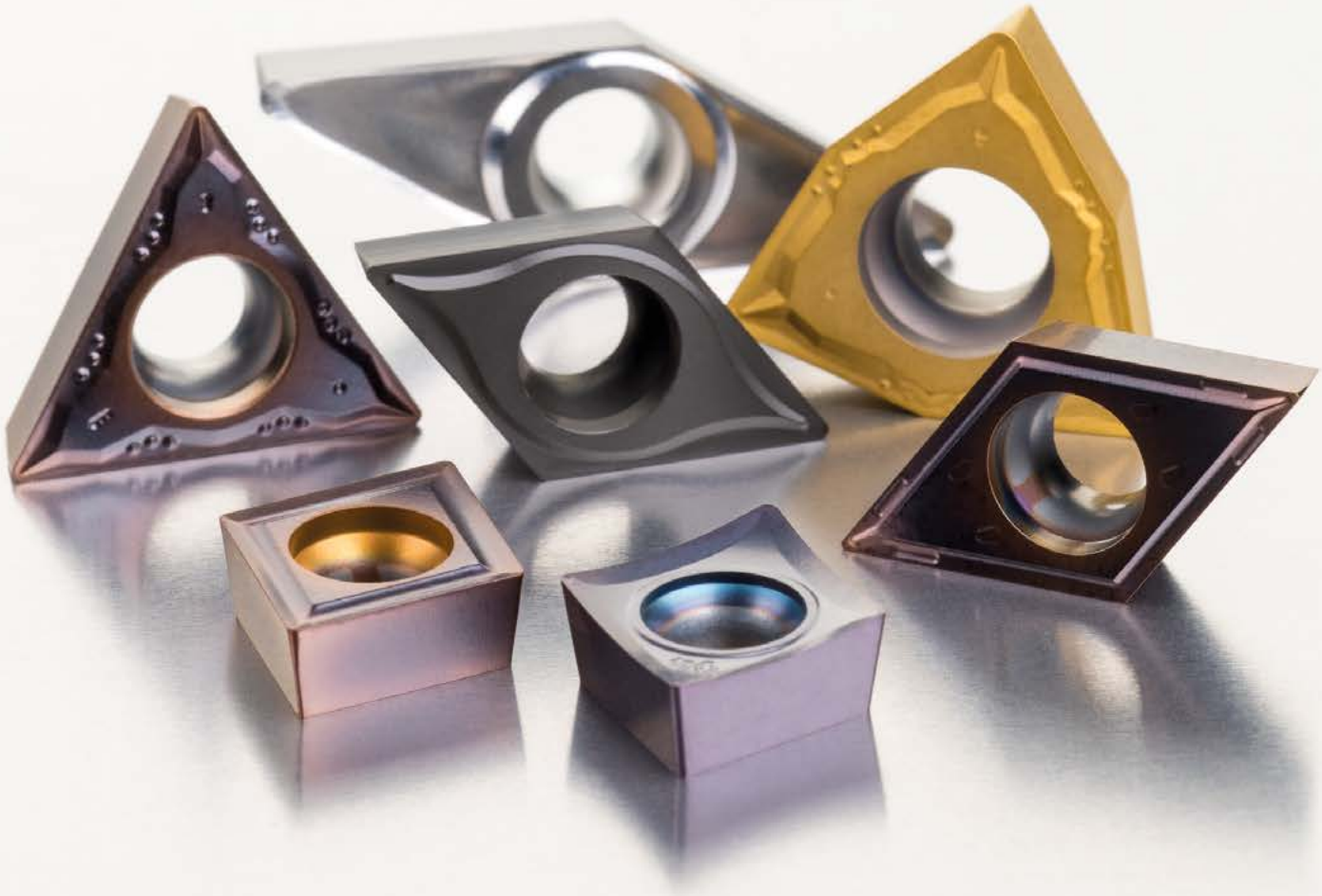
10 Shank width [mm]

08	10	12	16	20	25
32	40	50	60	70	80

11 Holder total length



	LF [mm]
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
X	Spec.
Y	500



POSITIVE INSERTS

CC

06 / 08 / 09 / 12

CARBIDE INSERTS

CCGT

60

CCMT

62

CCMW

68

CBN INSERTS

CCGW CBN

69

MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
CCMT **12**0404E-UR	S32U-SCKCR **12**-A

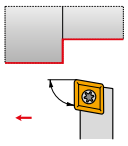
ISO TURNING – EXTERNAL

SCAC(RL) EXT

90°

CC..

06
09



08×08
16×16

70

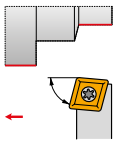
60 – 69

SCBC(RL) EXT

75°

CC..

09
12



12×12
25×25

71

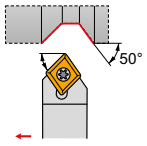
60 – 69

SCDCR EXT

45°

CC..

06



10×10

72

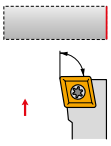
60 – 69

SCFC(RL) EXT

90°

CC..

06
09



08×08
16×16

73

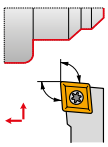
60 – 69

SCLC(RL) EXT

95°

CC..

06
08
09
12



08×08
25×25

74

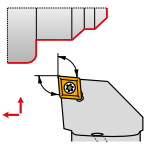
60 – 69

C.-SCLC(RL) EXT

95°

CC..

09
12



C3
C5

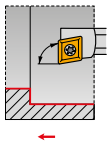
75

60 – 69

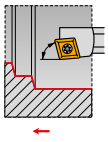
CC 06 / 08 / 09 / 12

ISO TURNING – INTERNAL

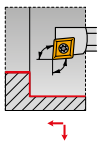
SCFC(RL) INT

90°	CC..
	06
ØDmin 13 / 16	
76	60 – 69

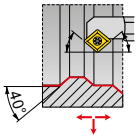
SCKC(RL) INT

75°	CC..
	06 09 12
ØDmin 11 / 40	
77	60 – 69

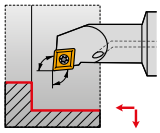
SCLC(RL) INT

95°	CC..
	06 09 12
ØDmin 11 / 40	
78	60 – 69

SCXC(RL) INT

40°	CC..
	06
ØDmin 13 / 20	
80	60 – 69

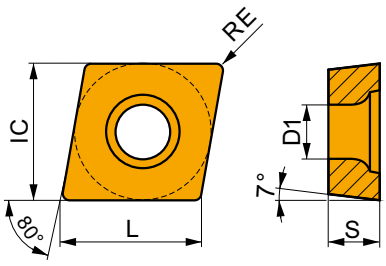
C.-SCLC(RL) INT

95°	CC..
	09
ØDmin 20 / 32	
81	60 – 69

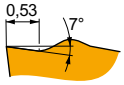
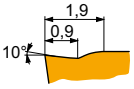
CCGT

PRAMET

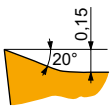
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.40	2.38
0602-SF3	6.350	2.80	6.40	2.58
0803-AL	7.940	3.40	8.10	3.43
0803-SF3	7.940	3.40	8.10	3.43
09T3	9.525	4.40	9.70	3.97
09T3-SF3	9.525	4.40	9.70	4.22
1204	12.700	5.50	12.90	4.76
1204-SF3	12.700	5.50	12.90	5.01



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			F																	
AL geometry with highly positive design for fine-finish to rough machining, continuous to slightly interrupted cuts.																				
CCGT 060202F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	450	0.12	1.0	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	645	0.12	1.0	–	–	–	–	–	–
CCGT 060204F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	360	0.24	1.0	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	525	0.24	1.0	–	–	–	–	–	–
CCGT 080302F-AL	**T0315**	0.2	–	–	–	–	–	–	–	–	–	645	0.12	1.0	–	–	–	–	–	–
CCGT 080304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	360	0.24	1.0	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	525	0.24	1.0	–	–	–	–	–	–
CCGT 09T302F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	450	0.12	1.0	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	645	0.12	1.0	–	–	–	–	–	–
CCGT 09T304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	345	0.24	1.5	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	495	0.24	1.5	–	–	–	–	–	–
CCGT 09T308F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	315	0.48	1.5	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	450	0.48	1.5	–	–	–	–	–	–
CCGT 120404F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	330	0.24	2.4	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	480	0.24	2.4	–	–	–	–	–	–
CCGT 120408F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	300	0.48	2.4	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	435	0.48	2.4	–	–	–	–	–	–
																				
			U		E															
FF2 geometry with positive design for fine-finish to finish machining, continuous to slightly interrupted cuts.																				
CCGT 09T302E-FF2	**T7325**	0.2	235	0.05	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.2	345	0.05	1.0	–	–	–	325	0.05	1.0	–	–	–	–	–	–	–	–	–
																				
			U		E															
NF1 geometry with positive design for fine-finish to medium machining and continuous cuts.																				
CCGT 060204E-NF1	**H07**	0.4	–	–	–	95	0.09	0.8	–	–	–	485	0.12	0.8	45	0.07	0.6	–	–	–
	T6310	0.4	180	0.10	0.8	125	0.09	0.8	–	–	–	540	0.12	0.8	50	0.07	0.6	35	0.15	1.0
	T7325	0.4	210	0.10	0.8	160	0.09	0.8	–	–	–	–	–	–	65	0.07	0.6	–	–	–
CCGT 060208E-NF1	**T6310**	0.8	205	0.12	0.8	145	0.11	0.8	–	–	–	615	0.14	0.8	60	0.11	0.6	40	0.15	1.0
	T7325	0.8	235	0.12	0.8	180	0.11	0.8	–	–	–	–	–	–	75	0.11	0.6	–	–	–
CCGT 09T304E-NF1	**H07**	0.4	–	–	–	90	0.09	1.2	–	–	–	470	0.12	1.2	45	0.07	1.0	–	–	–
	T6310	0.4	175	0.10	1.2	125	0.09	1.2	–	–	–	525	0.12	1.2	50	0.07	1.0	35	0.15	1.0
	T7325	0.4	200	0.10	1.2	155	0.09	1.2	–	–	–	–	–	–	65	0.07	1.0	–	–	–
CCGT 09T308E-NF1	**T6310**	0.8	190	0.14	1.2	135	0.13	1.2	–	–	–	570	0.17	1.2	55	0.13	1.0	35	0.15	1.0
	T7325	0.8	215	0.14	1.2	165	0.13	1.2	–	–	–	–	–	–	65	0.13	1.0	–	–	–

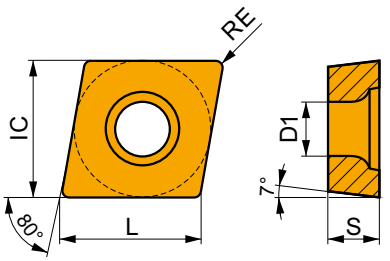
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
CCGT 060201E-SF3	**T6310**	0.1	200	0.05	0.5	140	0.05	0.5	160	0.05	0.5	600	0.06	0.5	60	0.04	0.4	40	0.15	1.0
CCGT 060202E-SF3	**H07**	0.2	–	–	–	120	0.05	0.8	190	0.05	0.8	605	0.06	0.8	60	0.04	0.6	–	–	–
	T6310	0.2	205	0.05	0.8	145	0.05	0.8	165	0.05	0.8	615	0.06	0.8	60	0.04	0.6	40	0.15	1.0
	T8315	0.2	215	0.05	0.8	125	0.05	0.8	200	0.05	0.8	645	0.06	0.8	50	0.04	0.6	40	0.15	1.0
CCGT 060204E-SF3	**H07**	0.4	–	–	–	95	0.09	0.8	150	0.10	0.8	485	0.12	0.8	45	0.07	0.6	–	–	–
	T6310	0.4	180	0.10	0.8	125	0.09	0.8	145	0.10	0.8	540	0.12	0.8	50	0.07	0.6	35	0.15	1.0
	T8315	0.4	190	0.10	0.8	110	0.09	0.8	180	0.10	0.8	570	0.12	0.8	45	0.07	0.6	35	0.15	1.0
CCGT 080302E-SF3	**T6310**	0.2	205	0.05	0.8	145	0.05	0.8	165	0.05	0.8	615	0.06	0.8	60	0.04	0.6	40	0.15	1.0
	T8315	0.2	215	0.05	0.8	125	0.05	0.8	200	0.05	0.8	645	0.06	0.8	50	0.04	0.6	40	0.15	1.0
CCGT 080304E-SF3	**H07**	0.4	–	–	–	95	0.09	1.0	150	0.10	1.0	485	0.12	1.0	45	0.07	0.8	–	–	–
	T6310	0.4	180	0.10	1.0	125	0.09	1.0	145	0.10	1.0	540	0.12	1.0	50	0.07	0.8	35	0.15	1.0
	T8315	0.4	190	0.10	1.0	110	0.09	1.0	180	0.10	1.0	570	0.12	1.0	45	0.07	0.8	35	0.15	1.0
CCGT 09T301E-SF3	**T6310**	0.1	200	0.05	0.5	140	0.05	0.5	160	0.05	0.5	600	0.06	0.5	60	0.04	0.4	40	0.15	1.0
CCGT 09T302E-SF3	**H07**	0.2	–	–	–	120	0.05	0.8	190	0.05	0.8	605	0.06	0.8	60	0.04	0.6	–	–	–
	T6310	0.2	205	0.05	0.8	145	0.05	0.8	165	0.05	0.8	615	0.06	0.8	60	0.04	0.6	40	0.15	1.0
	T8315	0.2	215	0.05	0.8	125	0.05	0.8	200	0.05	0.8	645	0.06	0.8	50	0.04	0.6	40	0.15	1.0
CCGT 09T304E-SF3	**H07**	0.4	–	–	–	95	0.09	1.0	150	0.10	1.0	485	0.12	1.0	45	0.07	0.8	–	–	–
	T6310	0.4	180	0.10	1.0	125	0.09	1.0	145	0.10	1.0	540	0.12	1.0	50	0.07	0.8	35	0.15	1.0
	T8315	0.4	190	0.10	1.0	110	0.09	1.0	180	0.10	1.0	570	0.12	1.0	45	0.07	0.8	35	0.15	1.0
CCGT 09T308E-SF3	**H07**	0.8	–	–	–	110	0.09	1.0	175	0.10	1.0	565	0.12	1.0	55	0.08	0.8	–	–	–
	T6310	0.8	210	0.10	1.0	150	0.09	1.0	165	0.10	1.0	630	0.12	1.0	60	0.08	0.8	40	0.15	1.0
	T8315	0.8	225	0.10	1.0	135	0.09	1.0	210	0.10	1.0	675	0.12	1.0	55	0.08	0.8	45	0.15	1.0
CCGT 120404E-SF3	**T6310**	0.4	180	0.10	1.0	125	0.09	1.0	145	0.10	1.0	540	0.12	1.0	50	0.07	0.8	35	0.15	1.0
CCGT 120408E-SF3	**H07**	0.8	–	–	–	105	0.12	1.0	165	0.12	1.0	525	0.14	1.0	50	0.11	0.8	–	–	–
	T6310	0.8	200	0.12	1.0	140	0.12	1.0	160	0.12	1.0	600	0.14	1.0	60	0.11	0.8	40	0.15	1.0
	T8315	0.8	210	0.12	1.0	125	0.12	1.0	195	0.12	1.0	630	0.14	1.0	50	0.11	0.8	40	0.15	1.0
																				
ER-SI geometry with positive right-handed design for fine-finish machining, and continuous cuts.																				
CCGT 060202ER-SI	**T8330**	0.2	215	0.10	0.8	125	0.09	0.8	200	0.10	0.8	–	–	–	50	0.08	0.6	–	–	–
	T8430	0.2	260	0.10	0.8	140	0.09	0.8	215	0.10	0.8	–	–	–	55	0.08	0.6	–	–	–
CCGT 060204ER-SI	**T8315**	0.4	225	0.12	0.8	135	0.11	0.8	210	0.12	0.8	–	–	–	55	0.10	0.6	–	–	–
	T8330	0.4	215	0.12	0.8	125	0.11	0.8	200	0.12	0.8	–	–	–	50	0.10	0.6	–	–	–
	T8430	0.4	260	0.12	0.8	140	0.11	0.8	215	0.12	0.8	–	–	–	55	0.10	0.6	–	–	–
CCGT 09T304ER-SI	**T8315**	0.4	205	0.17	0.8	120	0.15	0.8	190	0.17	0.8	–	–	–	50	0.15	0.6	–	–	–
	T8330	0.4	195	0.17	0.8	115	0.15	0.8	185	0.17	0.8	–	–	–	45	0.15	0.6	–	–	–
	T8430	0.4	230	0.17	0.8	125	0.15	0.8	185	0.17	0.8	–	–	–	45	0.15	0.6	–	–	–
CCGT 120408ER-SI	**T8330**	0.8	205	0.23	1.0	120	0.21	1.0	190	0.23	1.0	–	–	–	50	0.21	0.8	–	–	–
	T8430	0.8	230	0.24	1.0	125	0.22	1.0	185	0.24	1.0	–	–	–	45	0.22	0.8	–	–	–
																				
EL-SI geometry with positive left-handed design for fine-finish machining, and continuous cuts.																				
CCGT 060202EL-SI	**T8330**	0.2	215	0.10	0.8	125	0.09	0.8	200	0.10	0.8	–	–	–	50	0.08	0.6	–	–	–
	T8430	0.2	260	0.10	0.8	140	0.09	0.8	215	0.10	0.8	–	–	–	55	0.08	0.6	–	–	–
CCGT 060204EL-SI	**T8315**	0.4	225	0.12	0.8	135	0.11	0.8	210	0.12	0.8	–	–	–	55	0.10	0.6	–	–	–
	T8330	0.4	215	0.12	0.8	125	0.11	0.8	200	0.12	0.8	–	–	–	50	0.10	0.6	–	–	–
	T8430	0.4	260	0.12	0.8	140	0.11	0.8	215	0.12	0.8	–	–	–	55	0.10	0.6	–	–	–
CCGT 09T304EL-SI	**T8315**	0.4	205	0.17	0.8	120	0.15	0.8	190	0.17	0.8	–	–	–	50	0.15	0.6	–	–	–
	T8330	0.4	195	0.17	0.8	115	0.15	0.8	185	0.17	0.8	–	–	–	45	0.15	0.6	–	–	–
	T8430	0.4	230	0.17	0.8	125	0.15	0.8	185	0.17	0.8	–	–	–	45	0.15	0.6	–	–	–
CCGT 120408EL-SI	**T8330**	0.8	205	0.23	1.0	120	0.21	1.0	190	0.23	1.0	–	–	–	50	0.21	0.8	–	–	–
	T8430	0.8	230	0.24	1.0	125	0.22	1.0	185	0.24	1.0	–	–	–	45	0.22	0.8	–	–	–

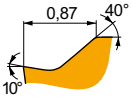
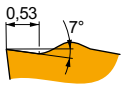
CCMT

PRAMET

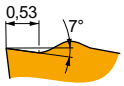
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.40	2.38
0803	7.940	3.40	8.10	3.18
09T3	9.525	4.40	9.70	3.97
1204	12.700	5.50	12.90	4.76



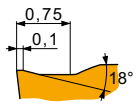
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
FF geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
CCMT 060202E-FF	**T8315**	0.2	◪ 195	0.10	1.0	◪ 115	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	■ 185	0.10	1.0	◪ 110	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 230	0.10	1.0	◪ 125	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.2	■ 315	0.10	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 060204E-FF	**T8315**	0.4	◪ 195	0.12	1.0	◪ 115	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 185	0.12	1.0	◪ 110	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 225	0.12	1.0	◪ 120	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 310	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T304E-FF	**T8315**	0.4	◪ 190	0.12	1.2	◪ 110	0.11	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 185	0.12	1.2	◪ 110	0.11	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 225	0.12	1.2	◪ 120	0.11	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 300	0.12	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
CCMT 060202E-FF2	**T7325**	0.2	◪ 240	0.05	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	■ 205	0.05	0.8	–	–	–	■ 190	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 280	0.05	0.8	–	–	–	◪ 230	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.2	■ 390	0.05	0.8	–	–	–	◪ 370	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 350	0.05	0.8	–	–	–	◪ 330	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	■ 345	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 060204E-FF2	**T7325**	0.4	◪ 190	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 165	0.12	1.0	–	–	–	■ 155	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 205	0.12	1.0	–	–	–	◪ 170	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 280	0.12	1.0	–	–	–	◪ 265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 255	0.12	1.0	–	–	–	◪ 240	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 215	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 280	0.12	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 080302E-FF2	**T7325**	0.2	◪ 240	0.05	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	■ 205	0.05	0.8	–	–	–	■ 190	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 280	0.05	0.8	–	–	–	◪ 230	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 350	0.05	0.8	–	–	–	◪ 330	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	■ 345	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 080304E-FF2	**T7325**	0.4	◪ 190	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 165	0.12	1.0	–	–	–	■ 155	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 205	0.12	1.0	–	–	–	◪ 170	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 255	0.12	1.0	–	–	–	◪ 240	0.12	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 350	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

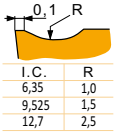
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																	
CCMT 080308E-FF2	**T7325**	0.8	◪ 205	0.17	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 180	0.17	1.0	–	–	–	■ 170	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 210	0.17	1.0	–	–	–	◪ 175	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 260	0.17	1.0	–	–	–	◪ 245	0.17	1.0	–	–	–	–	–	–	–	–	–
CCMT 09T304E-FF2	**T7325**	0.4	◪ 190	0.12	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 165	0.12	1.2	–	–	–	■ 155	0.12	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 200	0.12	1.2	–	–	–	◪ 165	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 275	0.12	1.2	–	–	–	◪ 260	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 250	0.12	1.2	–	–	–	◪ 235	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 215	0.12	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 350	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T308E-FF2	**T7325**	0.8	◪ 205	0.17	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 175	0.17	1.2	–	–	–	■ 165	0.17	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 205	0.17	1.2	–	–	–	◪ 170	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 285	0.17	1.2	–	–	–	◪ 270	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 255	0.17	1.2	–	–	–	◪ 240	0.17	1.2	–	–	–	–	–	–	–	–	–
	TT010	0.8	■ 350	0.10	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
CCMT 060202E-FM	**T7325**	0.2	◪ 210	0.10	1.0	■ 160	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.2	◪ 210	0.10	1.0	■ 160	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	◪ 195	0.10	1.0	■ 115	0.09	1.0	◪ 185	0.10	1.0	◪ 585	0.12	1.0	–	–	–	–	–	–
	T8330	0.2	■ 185	0.10	1.0	■ 110	0.09	1.0	◪ 175	0.10	1.0	◪ 555	0.12	1.0	–	–	–	–	–	–
	T8430	0.2	■ 230	0.10	1.0	■ 125	0.09	1.0	◪ 185	0.10	1.0	◪ 630	0.12	1.0	–	–	–	–	–	–
	T9315	0.2	■ 315	0.10	1.0	–	–	–	◪ 295	0.10	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 285	0.10	1.0	■ 170	0.09	1.0	◪ 270	0.10	1.0	–	–	–	–	–	–	–	–	–
CCMT 060204E-FM	**T7325**	0.4	◪ 200	0.15	1.0	■ 155	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 195	0.15	1.0	■ 150	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 185	0.15	1.0	■ 110	0.14	1.0	◪ 175	0.15	1.0	◪ 555	0.18	1.0	–	–	–	–	–	–
	T8330	0.4	■ 170	0.15	1.0	■ 100	0.14	1.0	◪ 160	0.15	1.0	◪ 510	0.18	1.0	–	–	–	–	–	–
	T8430	0.4	■ 205	0.15	1.0	■ 110	0.14	1.0	◪ 170	0.15	1.0	◪ 570	0.18	1.0	–	–	–	–	–	–
	T9315	0.4	■ 285	0.15	1.0	–	–	–	◪ 270	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 250	0.15	1.0	■ 150	0.15	1.0	◪ 235	0.15	1.0	–	–	–	–	–	–	–	–	–
CCMT 060208E-FM	**T7325**	0.8	◪ 220	0.20	1.0	■ 170	0.18	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 190	0.20	1.0	■ 110	0.18	1.0	◪ 180	0.20	1.0	◪ 570	0.24	1.0	–	–	–	–	–	–
	T8430	0.8	■ 220	0.20	1.0	■ 120	0.18	1.0	◪ 180	0.20	1.0	◪ 600	0.24	1.0	–	–	–	–	–	–
	T9315	0.8	■ 300	0.20	1.0	–	–	–	◪ 285	0.20	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 265	0.20	1.0	■ 155	0.18	1.0	◪ 250	0.20	1.0	–	–	–	–	–	–	–	–	–
CCMT 09T302E-FM	**T7325**	0.2	◪ 205	0.10	1.2	■ 155	0.09	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.2	◪ 205	0.10	1.2	■ 155	0.09	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	◪ 190	0.10	1.2	■ 110	0.09	1.2	◪ 180	0.10	1.2	◪ 570	0.12	1.2	–	–	–	–	–	–
	T8330	0.2	■ 180	0.10	1.2	■ 105	0.09	1.2	◪ 170	0.10	1.2	◪ 540	0.12	1.2	–	–	–	–	–	–
	T8430	0.2	■ 225	0.10	1.2	■ 120	0.09	1.2	◪ 185	0.10	1.2	◪ 615	0.12	1.2	–	–	–	–	–	–
	T9315	0.2	■ 310	0.10	1.2	–	–	–	◪ 290	0.10	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 275	0.10	1.2	■ 165	0.09	1.2	◪ 260	0.10	1.2	–	–	–	–	–	–	–	–	–
CCMT 09T304E-FM	**T7325**	0.4	◪ 195	0.15	1.2	■ 150	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 190	0.15	1.2	■ 145	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 180	0.15	1.2	■ 105	0.14	1.2	◪ 170	0.15	1.2	◪ 540	0.18	1.2	–	–	–	–	–	–
	T8330	0.4	■ 170	0.15	1.2	■ 100	0.14	1.2	◪ 160	0.15	1.2	◪ 510	0.18	1.2	–	–	–	–	–	–
	T8430	0.4	■ 200	0.15	1.2	■ 110	0.14	1.2	◪ 165	0.15	1.2	◪ 555	0.18	1.2	–	–	–	–	–	–
	T9315	0.4	■ 275	0.15	1.2	–	–	–	◪ 260	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 245	0.15	1.2	■ 145	0.15	1.2	◪ 230	0.15	1.2	–	–	–	–	–	–	–	–	–

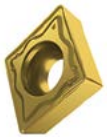
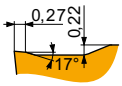
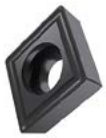
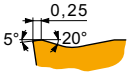
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
CCMT 09T308E-FM	**T7325**	0.8	215	0.20	1.2	165	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	205	0.20	1.2	155	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	195	0.20	1.2	115	0.18	1.2	185	0.20	1.2	585	0.24	1.2	–	–	–	–	–	–
	T8330	0.8	185	0.20	1.2	110	0.18	1.2	175	0.20	1.2	555	0.24	1.2	–	–	–	–	–	–
	T8430	0.8	210	0.20	1.2	115	0.18	1.2	175	0.20	1.2	585	0.24	1.2	–	–	–	–	–	–
	T9315	0.8	290	0.20	1.2	–	–	–	275	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.20	1.2	155	0.18	1.2	245	0.20	1.2	–	–	–	–	–	–	–	–	–
CCMT 120404E-FM	**T7325**	0.4	190	0.15	1.7	145	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	185	0.15	1.7	140	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	170	0.15	1.7	100	0.14	1.7	160	0.15	1.7	510	0.18	1.7	–	–	–	–	–	–
	T8330	0.4	165	0.15	1.7	95	0.14	1.7	155	0.15	1.7	495	0.18	1.7	–	–	–	–	–	–
	T8430	0.4	195	0.15	1.7	105	0.14	1.7	160	0.15	1.7	540	0.18	1.7	–	–	–	–	–	–
	T9315	0.4	265	0.15	1.7	–	–	–	250	0.15	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.15	1.7	140	0.15	1.7	225	0.15	1.7	–	–	–	–	–	–	–	–	–
CCMT 120408E-FM	**T7325**	0.8	205	0.20	1.7	155	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	200	0.20	1.7	155	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	190	0.20	1.7	110	0.18	1.7	180	0.20	1.7	570	0.24	1.7	–	–	–	–	–	–
	T8330	0.8	180	0.20	1.7	105	0.18	1.7	170	0.20	1.7	540	0.24	1.7	–	–	–	–	–	–
	T8430	0.8	205	0.20	1.7	110	0.18	1.7	170	0.20	1.7	570	0.24	1.7	–	–	–	–	–	–
	T9315	0.8	280	0.20	1.7	–	–	–	265	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	250	0.20	1.7	150	0.18	1.7	235	0.20	1.7	–	–	–	–	–	–	–	–	–
CCMT 120412E-FM	**T8330**	1.2	175	0.27	1.7	105	0.24	1.7	165	0.27	1.7	525	0.32	1.7	–	–	–	–	–	–
	T8430	1.2	190	0.27	1.7	105	0.24	1.7	155	0.27	1.7	525	0.32	1.7	–	–	–	–	–	–
	T9325	1.2	235	0.27	1.7	140	0.24	1.7	220	0.27	1.7	–	–	–	–	–	–	–	–	–
																				
FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																				
CCMT 080304E-FM2	**T8330**	0.4	165	0.12	1.0	95	0.11	1.0	155	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	205	0.12	1.0	110	0.11	1.0	170	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	280	0.12	1.0	–	–	–	265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	255	0.12	1.0	150	0.11	1.0	240	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.4	215	0.12	1.0	125	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 080308E-FM2	**T8330**	0.8	180	0.17	1.0	105	0.15	1.0	170	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	210	0.17	1.0	115	0.15	1.0	175	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.17	1.0	155	0.15	1.0	245	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	225	0.17	1.0	135	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T304E-FM2	**T6310**	0.4	165	0.12	1.0	115	0.11	1.0	130	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8330	0.4	165	0.12	1.0	95	0.11	1.0	155	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	205	0.12	1.0	110	0.11	1.0	170	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	280	0.12	1.0	–	–	–	265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	255	0.12	1.0	150	0.11	1.0	240	0.12	1.0	–	–	–	–	–	–	–	–	–
CCMT 09T308E-FM2	**T6310**	0.8	180	0.17	1.0	125	0.15	1.0	145	0.17	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	180	0.17	1.0	105	0.15	1.0	170	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	210	0.17	1.0	115	0.15	1.0	175	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	290	0.17	1.0	–	–	–	275	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.17	1.0	155	0.15	1.0	245	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	225	0.17	1.0	135	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 120408E-FM2	**T7325**	0.8	190	0.20	1.5	145	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	165	0.20	1.5	95	0.18	1.5	155	0.20	1.5	–	–	–	–	–	–	–	–	–
	T8430	0.8	190	0.20	1.5	105	0.18	1.5	155	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	235	0.20	1.5	140	0.18	1.5	220	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9335	0.8	200	0.20	1.5	120	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

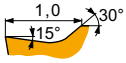
Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NF2 geometry with positive design for fine-finish to semi-rough machining, and continuous cuts.																				
CCMT 060202E-NF2	**T6310**	0.2	170	0.10	0.8	120	0.09	0.8	135	0.10	0.8	510	0.12	0.8	50	0.08	0.6	–	–	–
	T7325	0.2	195	0.10	0.8	150	0.09	0.8	–	–	–	–	–	–	60	0.08	0.6	–	–	–
	T8330	0.2	170	0.10	0.8	100	0.09	0.8	160	0.10	0.8	510	0.12	0.8	40	0.08	0.6	–	–	–
	T8430	0.2	210	0.10	0.8	115	0.09	0.8	175	0.10	0.8	585	0.12	0.8	45	0.08	0.6	–	–	–
	T9325	0.2	260	0.10	0.8	155	0.09	0.8	245	0.10	0.8	–	–	–	55	0.08	0.6	–	–	–
CCMT 060204E-NF2	**H07**	0.4	–	–	–	85	0.11	0.8	140	0.12	0.8	445	0.14	0.8	45	0.11	0.6	–	–	–
	T6310	0.4	170	0.12	0.8	120	0.11	0.8	135	0.12	0.8	510	0.14	0.8	50	0.11	0.6	–	–	–
	T7325	0.4	200	0.12	0.8	155	0.11	0.8	–	–	–	–	–	–	65	0.11	0.6	–	–	–
	T8330	0.4	170	0.12	0.8	100	0.11	0.8	160	0.12	0.8	510	0.14	0.8	40	0.11	0.6	–	–	–
	T8430	0.4	205	0.12	0.8	110	0.11	0.8	170	0.12	0.8	570	0.14	0.8	45	0.11	0.6	–	–	–
	T9315	0.4	290	0.12	0.8	–	–	–	275	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	255	0.12	0.8	150	0.11	0.8	240	0.12	0.8	–	–	–	55	0.11	0.6	–	–	–
	T9335	0.4	220	0.12	0.8	130	0.11	0.8	–	–	–	–	–	–	45	0.11	0.6	–	–	–
CCMT 080304E-NF2	**T5315**	0.4	280	0.12	1.0	–	–	–	265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.4	190	0.12	1.0	145	0.11	1.0	–	–	–	–	–	–	60	0.11	0.8	–	–	–
	T7335	0.4	190	0.12	1.0	145	0.11	1.0	–	–	–	–	–	–	60	0.11	0.8	–	–	–
	T9315	0.4	280	0.12	1.0	–	–	–	265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	255	0.12	1.0	150	0.11	1.0	240	0.12	1.0	–	–	–	55	0.11	0.8	–	–	–
	T9335	0.4	215	0.12	1.2	125	0.11	1.2	–	–	–	–	–	–	45	0.11	1.0	–	–	–
CCMT 080308E-NF2	**H07**	0.8	–	–	–	95	0.13	1.2	150	0.14	1.2	485	0.17	1.2	45	0.13	1.0	–	–	–
	T5315	0.8	295	0.17	1.0	–	–	–	280	0.17	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.14	0.8	–	–	–
	T7335	0.8	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.14	0.8	–	–	–
	T9325	0.8	260	0.17	1.0	155	0.15	1.0	245	0.17	1.0	–	–	–	55	0.14	0.8	–	–	–
CCMT 09T304E-NF2	**H07**	0.4	–	–	–	85	0.11	1.2	135	0.12	1.2	430	0.14	1.2	40	0.11	1.0	–	–	–
	T6310	0.4	165	0.12	1.2	115	0.11	1.2	130	0.12	1.2	495	0.14	1.2	45	0.11	1.0	–	–	–
	T7325	0.4	190	0.12	1.2	145	0.11	1.2	–	–	–	–	–	–	60	0.11	1.0	–	–	–
	T8330	0.4	165	0.12	1.2	95	0.11	1.2	155	0.12	1.2	495	0.14	1.2	40	0.11	1.0	–	–	–
	T8430	0.4	200	0.12	1.2	110	0.11	1.2	165	0.12	1.2	555	0.14	1.2	40	0.11	1.0	–	–	–
	T9315	0.4	275	0.12	1.2	–	–	–	260	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	250	0.12	1.2	150	0.11	1.2	235	0.12	1.2	–	–	–	55	0.11	1.0	–	–	–
	T9335	0.4	215	0.12	1.2	125	0.11	1.2	–	–	–	–	–	–	45	0.11	1.0	–	–	–
CCMT 09T308E-NF2	**H07**	0.8	–	–	–	95	0.13	1.2	150	0.14	1.2	485	0.17	1.2	45	0.13	1.0	–	–	–
	T6310	0.8	190	0.14	1.2	135	0.13	1.2	150	0.14	1.2	570	0.17	1.2	55	0.13	1.0	–	–	–
	T7325	0.8	215	0.14	1.2	165	0.13	1.2	–	–	–	–	–	–	65	0.13	1.0	–	–	–
	T8330	0.8	190	0.14	1.2	110	0.13	1.2	180	0.14	1.2	570	0.17	1.2	45	0.13	1.0	–	–	–
	T8430	0.8	225	0.14	1.2	120	0.13	1.2	185	0.14	1.2	615	0.17	1.2	45	0.13	1.0	–	–	–
	T9315	0.8	310	0.14	1.2	–	–	–	290	0.14	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	275	0.14	1.2	165	0.13	1.2	260	0.14	1.2	–	–	–	60	0.13	1.0	–	–	–
	T9335	0.8	235	0.14	1.2	140	0.13	1.2	–	–	–	–	–	–	50	0.13	1.0	–	–	–
	 I.C. / R: 6,35 / 1,0; 9,525 / 1,5; 12,7 / 2,5																			
RF geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CCMT 060202E-RF	**T7335**	0.2	150	0.15	1.0	115	0.14	1.0	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 060204E-RF	**T5315**	0.4	235	0.15	1.0	–	–	–	220	0.15	1.0	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.4	160	0.15	1.0	120	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	205	0.15	1.0	120	0.15	1.0	190	0.15	1.0	–	–	–	–	–	–	–	–	–
CCMT 09T304E-RF	**T7335**	0.4	135	0.20	1.5	105	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	175	0.20	1.5	105	0.18	1.5	165	0.20	1.5	–	–	–	–	–	–	–	–	–
CCMT 09T308E-RF	**T5315**	0.8	245	0.20	1.5	–	–	–	230	0.20	1.5	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.8	165	0.20	1.5	125	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	210	0.20	1.5	125	0.18	1.5	195	0.20	1.5	–	–	–	–	–	–	–	–	–
CCMT 120408E-RF	**T5315**	0.8	230	0.22	2.2	–	–	–	215	0.22	2.2	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.8	150	0.22	2.2	115	0.22	2.2	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	195	0.22	2.2	115	0.22	2.2	185	0.22	2.2	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CCMT 09T304E-RM	**T5305**	0.4	260	0.27	2.2	–	–	–	245	0.27	2.2	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.4	230	0.27	2.2	–	–	–	215	0.27	2.2	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.4	155	0.27	2.2	120	0.24	2.2	–	–	–	–	–	–	50	0.19	1.8	–	–	–
	T8330	0.4	140	0.27	2.2	80	0.24	2.2	130	0.27	2.2	–	–	–	35	0.19	1.8	25	0.15	1.0
	T8430	0.4	150	0.27	2.2	80	0.24	2.2	125	0.27	2.2	–	–	–	30	0.19	1.8	25	0.15	1.0
	T9315	0.4	215	0.27	2.2	–	–	–	200	0.27	2.2	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.4	190	0.27	2.2	110	0.24	2.2	180	0.27	2.2	–	–	–	40	0.19	1.8	–	–	–
CCMT 09T308E-RM	**T5305**	0.8	290	0.30	2.2	–	–	–	275	0.30	2.2	–	–	–	–	–	–	55	0.15	1.0
	T5315	0.8	265	0.30	2.2	–	–	–	250	0.30	2.2	–	–	–	–	–	–	50	0.15	1.0
	T7335	0.8	175	0.30	2.2	135	0.27	2.2	–	–	–	–	–	–	55	0.24	1.8	–	–	–
	T8330	0.8	165	0.30	2.2	95	0.27	2.2	155	0.30	2.2	–	–	–	40	0.24	1.8	30	0.15	1.0
	T8430	0.8	180	0.30	2.2	95	0.27	2.2	145	0.30	2.2	–	–	–	35	0.24	1.8	30	0.15	1.0
	T9315	0.8	240	0.30	2.2	–	–	–	225	0.30	2.2	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	215	0.30	2.2	125	0.27	2.2	200	0.30	2.2	–	–	–	45	0.24	1.8	–	–	–
CCMT 120408E-RM	**T5305**	0.8	290	0.30	2.7	–	–	–	275	0.30	2.7	–	–	–	–	–	–	55	0.15	1.0
	T5315	0.8	260	0.30	2.7	–	–	–	245	0.30	2.7	–	–	–	–	–	–	50	0.15	1.0
	T7335	0.8	175	0.30	2.7	135	0.27	2.7	–	–	–	–	–	–	55	0.24	2.2	–	–	–
	T8330	0.8	160	0.30	2.7	95	0.27	2.7	150	0.30	2.7	–	–	–	40	0.24	2.2	30	0.15	1.0
	T8430	0.8	175	0.30	2.7	95	0.27	2.7	140	0.30	2.7	–	–	–	35	0.24	2.2	30	0.15	1.0
	T9315	0.8	235	0.30	2.7	–	–	–	220	0.30	2.7	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	210	0.30	2.7	125	0.27	2.7	195	0.30	2.7	–	–	–	45	0.24	2.2	–	–	–
CCMT 120412E-RM	**T8330**	1.2	165	0.33	2.7	95	0.30	2.7	155	0.33	2.7	–	–	–	40	0.23	2.2	30	0.15	1.0
	T8430	1.2	180	0.33	2.7	95	0.30	2.7	145	0.33	2.7	–	–	–	35	0.23	2.2	30	0.15	1.0
	T9315	1.2	235	0.33	2.7	–	–	–	220	0.33	2.7	–	–	–	–	–	–	45	0.15	1.0
	T9325	1.2	215	0.33	2.7	125	0.30	2.7	200	0.33	2.7	–	–	–	45	0.23	2.2	–	–	–
																				
RM3 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CCMT 120404E-RM3	**T7325**	0.4	140	0.25	2.5	105	0.25	2.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.4	190	0.25	2.5	–	–	–	180	0.25	2.5	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.4	165	0.25	2.5	95	0.25	2.5	155	0.25	2.5	–	–	–	–	–	–	–	–	–
CCMT 120408E-RM3	**T6310**	0.8	145	0.27	2.5	100	0.27	2.5	115	0.27	2.5	–	–	–	–	–	–	25	0.15	1.0
	T7325	0.8	165	0.27	2.5	125	0.27	2.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.8	215	0.27	2.5	–	–	–	200	0.27	2.5	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	195	0.27	2.5	115	0.27	2.5	185	0.27	2.5	–	–	–	–	–	–	–	–	–
CCMT 120412E-RM3	**T7325**	1.2	170	0.30	2.5	130	0.27	2.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	1.2	220	0.30	2.5	–	–	–	205	0.30	2.5	–	–	–	–	–	–	40	0.15	1.0
																				
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																				
CCMT 060202E-UR	**T7325**	0.2	185	0.10	0.8	140	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.2	185	0.10	0.8	140	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	170	0.10	0.8	100	0.09	0.8	160	0.10	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.2	160	0.10	0.8	95	0.09	0.8	150	0.10	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	200	0.10	0.8	110	0.09	0.8	165	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.2	275	0.10	0.8	–	–	–	260	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	250	0.10	0.8	150	0.09	0.8	235	0.10	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.2	275	0.10	0.5	165	0.09	0.5	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

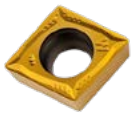
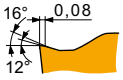
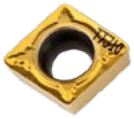
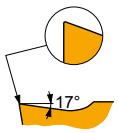
Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]



UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.

CCMT 060204E-UR	**T5315**	0.4	245	0.15	1.0	–	–	–	230	0.15	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.4	170	0.15	1.0	130	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	170	0.15	1.0	130	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	160	0.15	1.0	95	0.14	1.0	150	0.15	1.0	–	–	–	–	–	–	–	–	–
	T8330	0.4	150	0.15	1.0	90	0.14	1.0	140	0.15	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	175	0.15	1.0	95	0.14	1.0	140	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	245	0.15	1.0	–	–	–	230	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	215	0.15	1.0	125	0.15	1.0	200	0.15	1.0	–	–	–	–	–	–	–	–	–
	TT310	0.4	255	0.15	0.5	150	0.14	0.5	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 060208E-UR	**T5315**	0.8	270	0.20	1.0	–	–	–	255	0.20	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	190	0.20	1.0	145	0.18	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	165	0.20	1.0	95	0.18	1.0	155	0.20	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	185	0.20	1.0	100	0.18	1.0	150	0.20	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	255	0.20	1.0	–	–	–	240	0.20	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	230	0.20	1.0	135	0.18	1.0	215	0.20	1.0	–	–	–	–	–	–	–	–	–
CCMT 09T302E-UR	**T6310**	0.2	160	0.10	1.0	115	0.09	1.0	125	0.10	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.2	195	0.10	1.0	105	0.09	1.0	160	0.10	1.0	–	–	–	–	–	–	–	–	–
	TT310	0.2	255	0.10	1.0	150	0.09	1.0	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T304E-UR	**T5315**	0.4	245	0.15	1.2	–	–	–	230	0.15	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.4	170	0.15	1.2	130	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	165	0.15	1.2	125	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	155	0.15	1.2	90	0.14	1.2	145	0.15	1.2	–	–	–	–	–	–	–	–	–
	T8330	0.4	150	0.15	1.2	90	0.14	1.2	140	0.15	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	175	0.15	1.2	95	0.14	1.2	140	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9310	0.4	265	0.15	1.2	–	–	–	250	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	235	0.15	1.2	–	–	–	220	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	215	0.15	1.2	125	0.15	1.2	200	0.15	1.2	–	–	–	–	–	–	–	–	–
	TT310	0.4	235	0.15	1.2	140	0.14	1.2	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T308E-UR	**T5315**	0.8	265	0.20	1.2	–	–	–	250	0.20	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.8	185	0.20	1.2	140	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	175	0.20	1.2	135	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	170	0.20	1.2	100	0.18	1.2	160	0.20	1.2	–	–	–	–	–	–	–	–	–
	T8330	0.8	160	0.20	1.2	95	0.18	1.2	150	0.20	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	185	0.20	1.2	100	0.18	1.2	150	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9310	0.8	280	0.20	1.2	–	–	–	265	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	250	0.20	1.2	–	–	–	235	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	225	0.20	1.2	135	0.18	1.2	210	0.20	1.2	–	–	–	–	–	–	–	–	–
	TT310	0.8	255	0.20	1.2	150	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 120404E-UR	**T5315**	0.4	235	0.15	1.7	–	–	–	220	0.15	1.7	–	–	–	–	–	–	–	–	–
	T7325	0.4	160	0.15	1.7	120	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	140	0.15	1.7	80	0.14	1.7	130	0.15	1.7	–	–	–	–	–	–	–	–	–
	T8430	0.4	170	0.15	1.7	90	0.14	1.7	135	0.15	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.4	230	0.15	1.7	–	–	–	215	0.15	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	205	0.15	1.7	120	0.15	1.7	190	0.15	1.7	–	–	–	–	–	–	–	–	–
CCMT 120408E-UR	**T5315**	0.8	255	0.20	1.7	–	–	–	240	0.20	1.7	–	–	–	–	–	–	–	–	–
	T7325	0.8	175	0.20	1.7	135	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	170	0.20	1.7	130	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	155	0.20	1.7	90	0.18	1.7	145	0.20	1.7	–	–	–	–	–	–	–	–	–
	T8430	0.8	180	0.20	1.7	95	0.18	1.7	145	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.8	240	0.20	1.7	–	–	–	225	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	215	0.20	1.7	125	0.18	1.7	200	0.20	1.7	–	–	–	–	–	–	–	–	–
CCMT 120412E-UR	**T5315**	1.2	240	0.27	1.7	–	–	–	225	0.27	1.7	–	–	–	–	–	–	–	–	–
	T7325	1.2	170	0.27	1.7	130	0.24	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	1.2	165	0.27	1.7	90	0.24	1.7	135	0.27	1.7	–	–	–	–	–	–	–	–	–
	T9315	1.2	225	0.27	1.7	–	–	–	210	0.27	1.7	–	–	–	–	–	–	–	–	–
	T9325	1.2	205	0.27	1.7	120	0.24	1.7	190	0.27	1.7	–	–	–	–	–	–	–	–	–

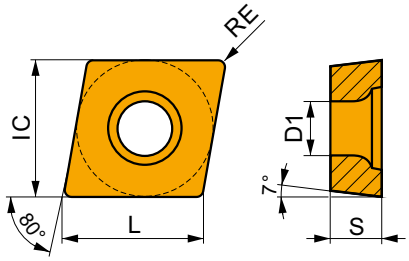
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			W S																	
W-FM wiper geometry for fine to finish machining with increased feed rates and improved surface finish.																				
CCMT 060204W-FM	**T7325**	0.4	165	0.30	0.8	125	0.27	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.4	165	0.30	0.8	90	0.27	0.8	135	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	215	0.30	0.8	–	–	–	200	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.30	0.8	110	0.27	0.8	180	0.30	0.8	–	–	–	–	–	–	–	–	–
CCMT 09T304W-FM	**T7325**	0.4	165	0.30	0.8	125	0.27	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	145	0.30	0.8	85	0.27	0.8	135	0.30	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	165	0.30	0.8	90	0.27	0.8	135	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	215	0.30	0.8	–	–	–	200	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.30	0.8	110	0.27	0.8	180	0.30	0.8	–	–	–	–	–	–	–	–	–
CCMT 09T308W-FM	**T8330**	0.8	155	0.40	1.0	90	0.36	1.0	145	0.40	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	170	0.40	1.0	90	0.36	1.0	135	0.40	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	220	0.40	1.0	–	–	–	205	0.40	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	200	0.40	1.0	120	0.36	1.0	190	0.40	1.0	–	–	–	–	–	–	–	–	–
			W								E									
W-UR wiper geometry for fine to finish machining with increased feed rates and improved surface finish.																				
CCMT 060204W-UR	**TT310**	0.4	255	0.15	0.5	150	0.14	0.5	–	–	–	–	–	–	–	–	–	–	–	–
CCMT 09T308W-UR	**TT310**	0.8	255	0.20	1.2	150	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–

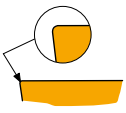
CCMW

PRAMET

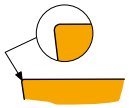
	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
0602	6.350	2.80	6.40	2.38
09T3	9.525	4.40	9.70	3.97
1204	12.700	5.50	12.90	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			E																	
For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
CCMW 060202	**T5305**	0.2	–	–	–	–	–	–	230	0.08	2.0	–	–	–	–	–	–	45	0.15	1.0
	T6310	0.2	–	–	–	–	–	–	100	0.08	2.0	–	–	–	–	–	–	25	0.15	1.0
CCMW 060204	**T5305**	0.4	–	–	–	–	–	–	230	0.10	2.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	195	0.10	2.0	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	95	0.10	2.0	–	–	–	–	–	–	20	0.15	1.0
CCMW 09T304	**T5305**	0.4	–	–	–	–	–	–	215	0.10	3.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	190	0.10	3.0	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	95	0.10	3.0	–	–	–	–	–	–	20	0.15	1.0
CCMW 09T308	**T5305**	0.8	–	–	–	–	–	–	200	0.20	3.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	180	0.20	3.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	90	0.20	3.0	–	–	–	–	–	–	20	0.15	1.0

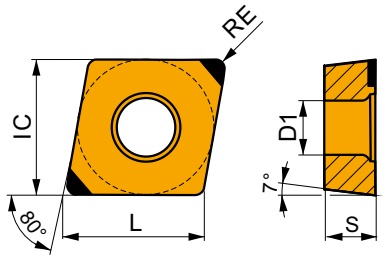
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
CCMW 120404	**T5305**	0.4	–	–	–	–	–	–	210	0.10	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	185	0.10	4.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	90	0.10	4.0	–	–	–	–	–	–	20	0.15	1.0
CCMW 120408	**T5305**	0.8	–	–	–	–	–	–	195	0.20	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	175	0.20	4.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	90	0.20	4.0	–	–	–	–	–	–	20	0.15	1.0

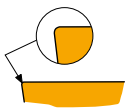
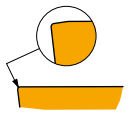
CCGW CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.50	2.38
09T3	9.525	4.50	9.70	3.97



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC E																	
			For finish machining.																	
CCGW 060204E-B	**TB310**	0.4	–	–	–	–	–	–	460	0.10	0.4	–	–	–	120	0.07	0.3	95	0.15	1.0
CCGW 09T304E-B	**TB310**	0.4	–	–	–	–	–	–	460	0.10	0.4	–	–	–	120	0.07	0.3	95	0.15	1.0
			HSC S																	
			For finish machining.																	
CCGW 060204S01020B	**TB310**	0.4	–	–	–	–	–	–	460	0.10	0.4	–	–	–	120	0.07	0.3	95	0.15	1.0
CCGW 09T304S01020B	**TB310**	0.4	–	–	–	–	–	–	460	0.10	0.4	–	–	–	120	0.07	0.3	95	0.15	1.0

SCAC(RL) EXT

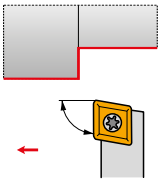
P M K N S H

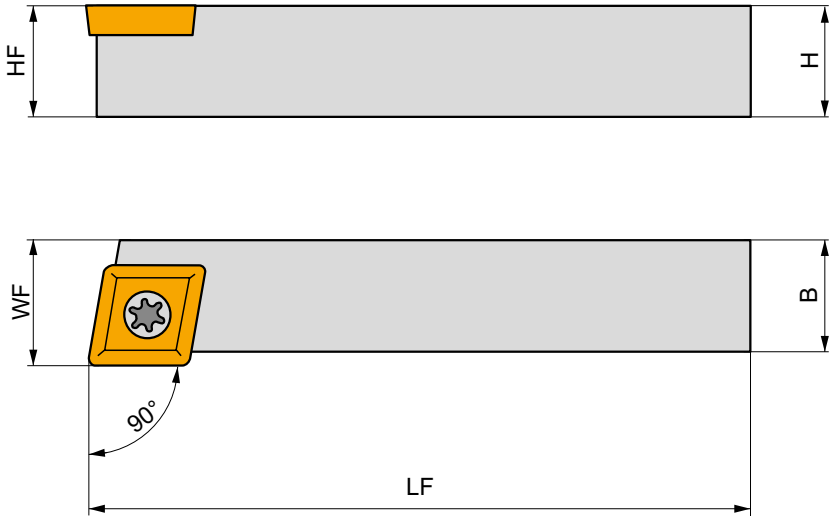
PRAMET

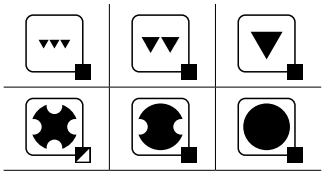
S

External Screw Lock Tool Holder with 90° Cutting Angle for CC.. Insert

External Right/Left hand tool holder with 90° cutting angle for screw type positive CC.. 06 or 09 inserts. Suited for external longitudinal, taper and chamfer turning. Available with shank size 08x08 up to 16x16 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	SCACR 0808 D 06	8	8	8	8.5	60	0	0	0.04	GI045	S07
	SCACR 1010 E 06	10	10	10	10.5	70	0	0	0.09	GI045	S07
	SCACR 1212 F 09	12	12	12	12.5	80	0	0	0.12	GI041	S04
	SCACR 1616 H 09	16	16	16	16.5	100	0	0	0.22	GI041	S04
L	SCACL 0808 D 06	8	8	8	8.5	60	0	0	0.07	GI045	S07
	SCACL 1010 E 06	10	10	10	10.5	70	0	0	0.06	GI045	S07
	SCACL 1212 F 09	12	12	12	12.5	80	0	0	0.12	GI041	S04
	SCACL 1616 H 09	16	16	16	16.5	100	0	0	0.22	GI041	S04

GI041	CC.. 09T3..
GI045	CC.. 0602..

		Nm			
S04	US 3510-T15P	3.0	M 3.5	10.6	FLAG T15P
S07	US 2506-T07P	0.9	M 2.5	6.3	FLAG T07P

SCBC(RL) EXT

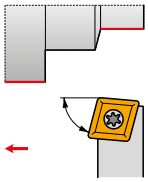
P M K N S H

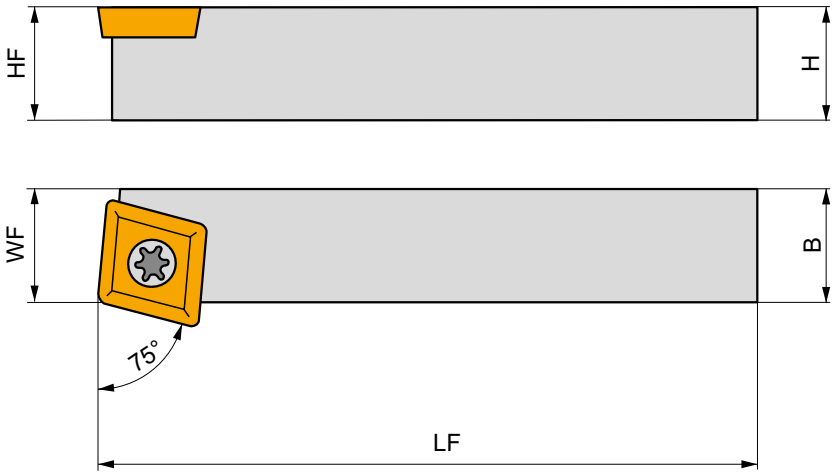
PRAMET

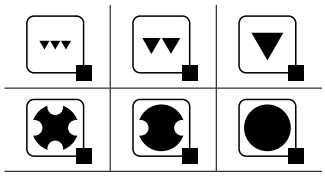
S

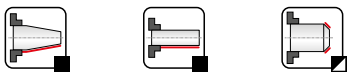
External Screw Lock Tool Holder with 75° Cutting Angle for CC.. Insert

External Right/Left hand tool holder with 75° cutting angle for screw type positive CC.. 09 or 12 inserts. Suited for external longitudinal without shoulder and chamfer turning. Available with shank size 12x12 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	SCBCR 1212 F 09	12	12	12	11	80	0	0	0.10	GI041	S08
	SCBCR 1616 H 09	16	16	16	13	100	0	0	0.20	GI041	S08
	SCBCR 2020 K 12-M-A	20	20	20	17	125	0	0	0.45	GI011	SC20
	SCBCR 2525 M 12-M-A	25	25	25	22	150	0	0	0.61	GI011	SC20
L	SCBCL 1212 F 09	12	12	12	11	80	0	0	0.10	GI041	S08
	SCBCL 1616 H 09	16	16	16	13	100	0	0	0.22	GI041	S08
	SCBCL 2020 K 12-M-A	20	20	20	17	125	0	0	0.43	GI011	SC20
	SCBCL 2525 M 12-M-A	25	25	25	22	150	0	0	0.75	GI011	SC20

GI011	CC.. 1204..
GI041	CC.. 09T3..

		Nm						
SC20	US 5012-T15P	5.0	M 5	12.2	SCN 120304	MS 5008	FLAG T15P	HXK 5
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SCDCR EXT

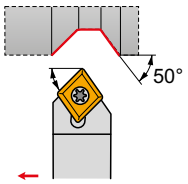
P M K N S H

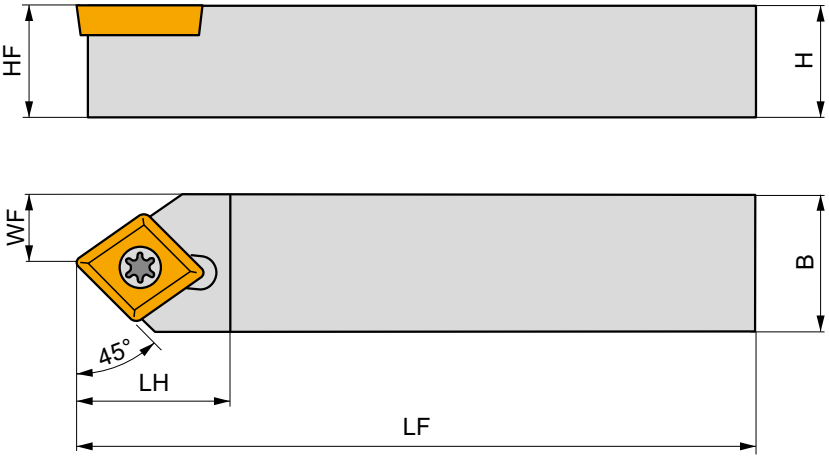
PRAMET

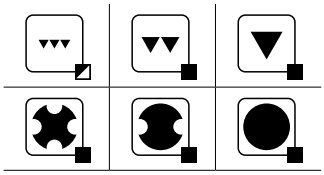
S

External Screw Lock Tool Holder with 45° Cutting Angle for CC.. Insert

External right hand tool holder with 45° cutting angle for screw type positive CC.. 06 inserts. Suited for external longitudinal without shoulder, taper, multi-directional copy, and chamfer turning. Available with shank size 10x10 mm only. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SCDCR 1010 E 06	10	10	10	5.11	70	11	0	0	0.06	GI045	SC21

GI045	CC.. 0602..

SC21	5513 020-03	0.8 Nm	M 2.5	6.5	PT-8001

SCFC(RL) EXT

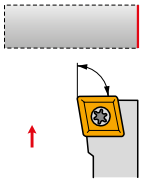
P M K N S H

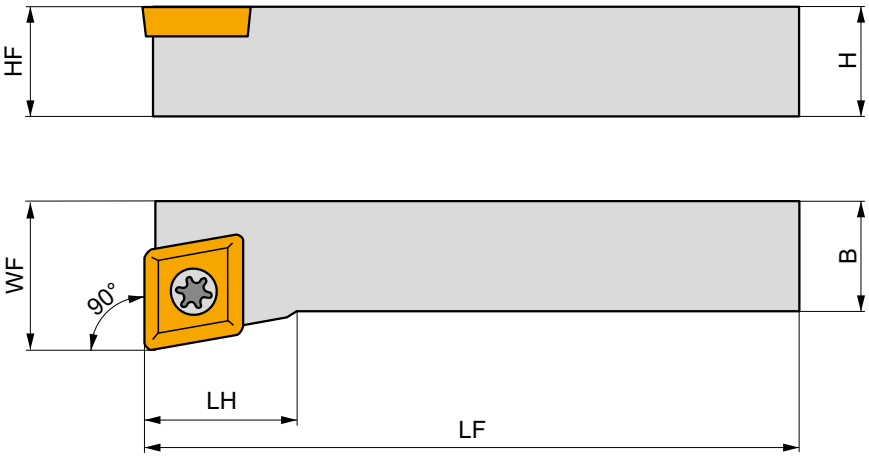
PRAMET

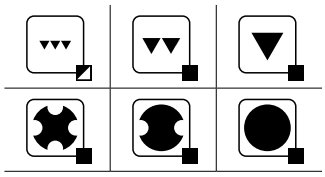
S

External Screw Lock Tool Holder with 90° Cutting Angle for CC.. Insert

External Right/Left hand tool holder with 90° cutting angle for screw type positive CC.. 06 or 09 inserts. Suited for external face and longitudinal turning with shoulder, taper and chamfer turning. Available with shank size 08x08 up to 16x16 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SCFCR 0808 D 06	8	8	8	10	60	8	0	0	0.04	GI045	S07
	SCFCR 1010 E 06	10	10	10	12	70	8	0	0	0.07	GI045	S07
	SCFCR 1212 F 09	12	12	12	16	80	16	0	0	0.12	GI041	S04
	SCFCR 1616 H 09	16	16	16	20	100	16	0	0	0.22	GI041	S04
L	SCFCL 0808 D 06	8	8	8	10	60	8	0	0	0.04	GI045	S07
	SCFCL 1010 E 06	10	10	10	12	70	8	0	0	0.06	GI045	S07
	SCFCL 1212 F 09	12	12	12	16	80	16	0	0	0.10	GI041	S04
	SCFCL 1616 H 09	16	16	16	20	100	16	0	0	0.22	GI041	S04

GI041	CC.. 09T3..
GI045	CC.. 0602..

		Nm			
S04	US 3510-T15P	3.0	M 3.5	10.6	FLAG T15P
S07	US 2506-T07P	0.9	M 2.5	6.3	FLAG T07P

SCLC(RL) EXT

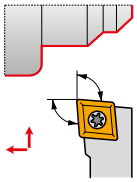
P M K N S H

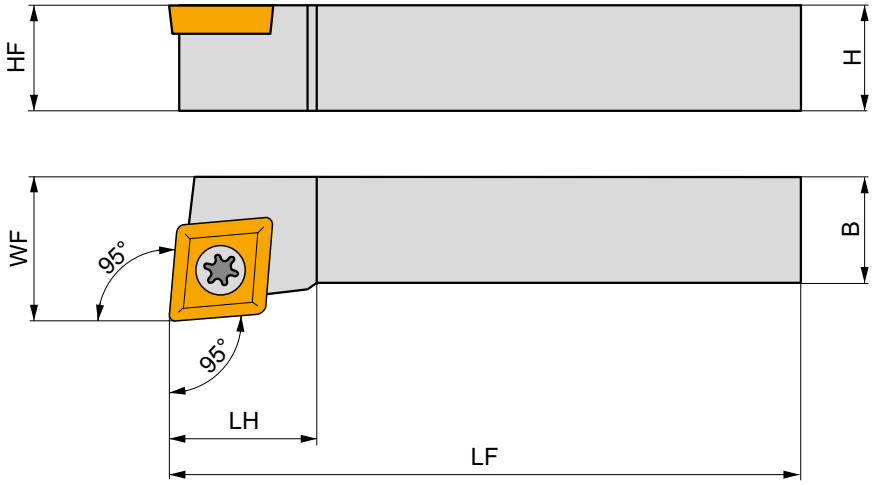
PRAMET

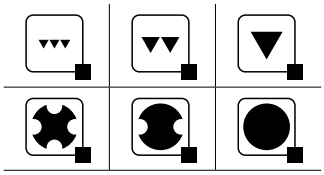
S

External Screw Lock Tool Holder with 95° Cutting Angle for CC.. Insert

External Right/Left hand tool holder with 95° cutting angle for screw type positive CC.. 06, 08, 09 or 12 inserts. Suited for external longitudinal turning with shoulder, taper and chamfer turning. Available with shank size 08x08 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SCLCR 0808 D 06	8	8	8	10	60	8	0	0	0.06	GI045	S01
	SCLCR 1010 E 06	10	10	10	12	70	8	0	0	0.09	GI045	S01
	SCLCR 1010 E 08	10	10	10	12	70	13.2	0	0	0.03	GI232	SC22
	SCLCR 1212 F 08	12	12	12	16	80	13.4	0	0	0.02	GI232	SC22
	SCLCR 1616 H 08	16	16	16	20	100	15.2	0	0	0.22	GI232	SC22
	SCLCR 1212 F 09	12	12	12	16	80	16	0	0	0.12	GI041	S08
	SCLCR 1616 H 09	16	16	16	20	100	16	0	0	0.22	GI041	S08
	SCLCR 2020 K 12-M-A	20	20	20	25	125	20	0	0	0.44	GI011	SC20
	SCLCR 2525 M 12-M-A	20	25	20	32	150	20	0	0	0.68	GI011	SC20
L	SCLCL 0808 D 06	8	8	8	10	60	8	0	0	0.06	GI045	S01
	SCLCL 1010 E 06	10	10	10	12	70	8	0	0	0.06	GI045	S01
	SCLCL 1212 F 08	12	12	12	16	80	13.4	0	0	0.03	GI232	SC22
	SCLCL 1616 H 08	16	16	16	20	100	15.2	0	0	0.23	GI232	SC22
	SCLCL 1212 F 09	12	12	12	16	80	16	0	0	0.10	GI041	S08
	SCLCL 1616 H 09	16	16	16	20	100	16	0	0	0.22	GI041	S08
	SCLCL 2020 K 12-M-A	20	20	20	25	125	20	0	0	0.40	GI011	SC20
	SCLCL 2525 M 12-M-A	25	25	25	32	150	20	0	0	0.78	GI011	SC20

GI011	CC.. 1204..
GI041	CC.. 09T3..
GI045	CC.. 0602..
GI232	CC.. 0803..

		Nm						
SC20	US 5012-T15P	5.0	M 5	12.2	SCN 120304	MS 5008	FLAG T15P	HXK 5
SC22	5513 020-04	1.5	M 3	7.2	–	–	PT-8003	–
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

C.-SCLC(RL) EXT

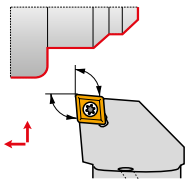
P M K N S H

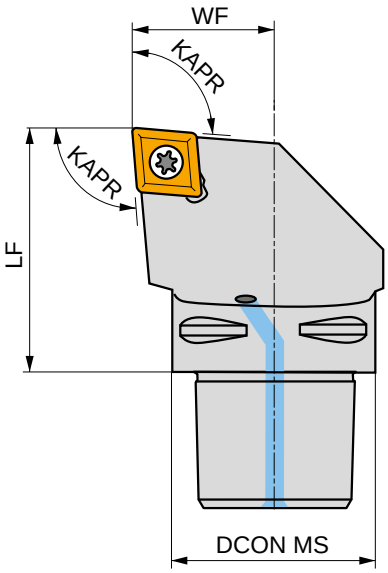
PRAMET

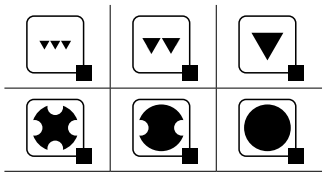
S

External PSC Quick Change Tool, Screw Lock, 95° Cutting Angle for CC.. Insert

External Right/Left hand tool, through coolant, with 95° cutting angle for screw type positive CC.. 09 and 12 inserts. Suited for external longitudinal turning with shoulder, taper and chamfer turning. PSC shank (Polygon Shank Coupling) size C3 up to C5. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SCLCR-22040-09	32	22	40	95	0	0	✓	0.21	GI041	C-SC09S
	C4-SCLCR-27050-09	40	27	50	95	0	0	✓	0.39	GI041	C-SC09S
	C4-SCLCR-27050-12	40	27	50	95	0	0	✓	0.40	GI011	C-SC12-1
	C5-SCLCR-35060-12	50	35	60	95	0	0	✓	0.72	GI011	C-SC12-2
L	C3-SCLCL-22040-09	32	22	40	95	0	0	✓	0.21	GI041	C-SC09S
	C4-SCLCL-27050-09	40	27	50	95	0	0	✓	0.39	GI041	C-SC09S
	C5-SCLCL-35060-12	50	35	60	95	0	0	✓	0.72	GI011	C-SC12-2

GI011	CC.. 1204..
GI041	CC.. 09T3..

		Nm						
C-SC09S	US 2001-T15P	3.0	M 3.5	12.1	SCS 232-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SC12-1	US 2018-T15P	3.0	M 4	14	SCS 232-02	MS 9003	FLAG T15P/4	CN 034-01
C-SC12-2	US 2018-T15P	3.0	M 4	14	SCS 232-02	MS 9003	FLAG T15P/4	CN 034-02

SCFC(RL) INT

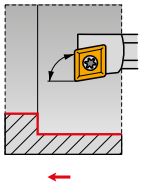
P M K N S H

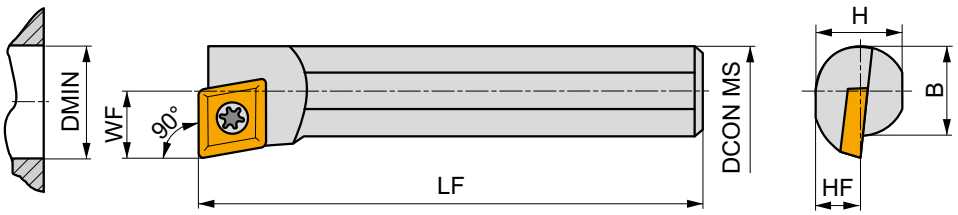
PRAMET

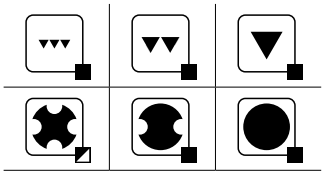
S

Internal Screw Lock Boring Bar with 90° Cutting Angle for CC.. Insert

Internal Right/Left hand boring bar with 90° cutting angle for screw type CC.. 06 inserts. Minimum internal turning diameter Ø13 mm. Suited for internal face and longitudinal turning with shoulder, taper and chamfer turning. Available with shank size Ø10 and Ø12 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S10H-SCFCR 06	10	13	7	9	9.5	100	-10	0	0.08	GI045	S06
	S12K-SCFCR 06	12	16	9	11	11.5	125	-7	0	0.11	GI045	S06
L	S10H-SCFCL 06	10	13	7	9	9.5	100	-10	0	0.10	GI045	S06
	S12K-SCFCL 06	12	16	9	11	11.5	125	-7	0	0.14	GI045	S06

GI045	CC.. 0602..

S06	US 2505-T07P	0.9	M 2.5	5.2	FLAG T07P

SCKC(RL) INT

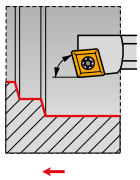
P M K N S H

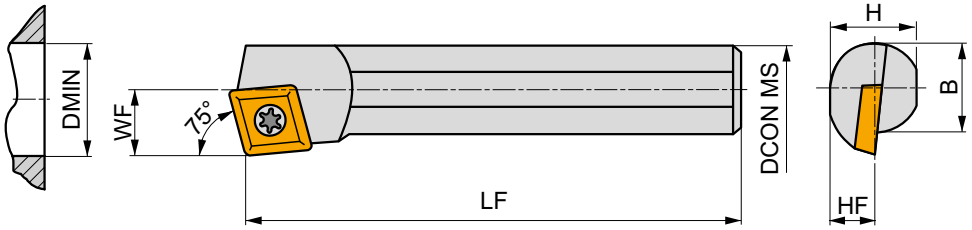
PRAMET

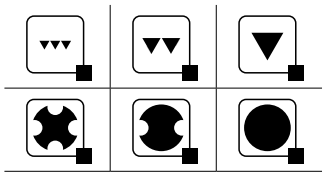
S

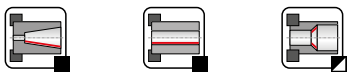
Internal Screw Lock Boring Bar with 75° Cutting Angle for CC.. Insert

Internal Right/Left hand boring bar with 75° cutting angle for screw type CC.. 06, 09 or 12 inserts. Minimum internal turning diameter Ø11 mm. Suited for internal longitudinal turning without shoulder, taper and chamfer turning. Available with shank size Ø8 up to Ø32 mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S08F-SCKCR 06	8	11	6	7.2	7.6	80	-12	0	0.03	GI045	S02
	S12K-SCKCR 06	12	16	9	11	11.5	125	-8	0	0.11	GI045	S02
	S16M-SCKCR 09-A	16	20	11	14.5	15	150	-8	0	0.25	GI041	S05
	S20S-SCKCR 09	20	25	13	18.5	18.5	250	-5	0	0.60	GI041	S08
	S25T-SCKCR 09	25	32	17	23	23	300	-3	0	1.15	GI041	S08
	S32U-SCKCR 12-A	32	40	22	30	30	350	-10	0	2.10	GI011	SC20
L	S08F-SCKCL 06	8	11	6	7.2	7.6	80	-12	0	0.03	GI045	S02
	S12K-SCKCL 06	12	16	9	11	11.5	125	-8	0	0.11	GI045	S02
	S16M-SCKCL 09-A	16	20	11	14.5	15	150	-8	0	0.24	GI041	S05
	S20S-SCKCL 09	20	25	13	18.5	18.5	250	-5	0	0.60	GI041	S08
	S25T-SCKCL 09	25	32	17	23	23	300	-3	0	1.15	GI041	S08
	S32U-SCKCL 12-A	32	40	22	30	30	350	-10	0	2.10	GI011	SC20

GI011	CC.. 1204..
GI041	CC.. 09T3..
GI045	CC.. 0602..

		Nm						
SC20	US 5012-T15P	5.0	M 5	12.2	SCN 120304	MS 5008	FLAG T15P	HXK 5
S02	US 2505-T07P	0.9	M 2.5	5.2	–	–	FLAG T07P	–
S05	US 4008-T15P	3.5	M 4	8	–	–	FLAG T15P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SCLC(RL) INT

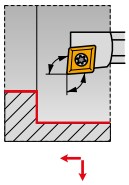
P M K N S H

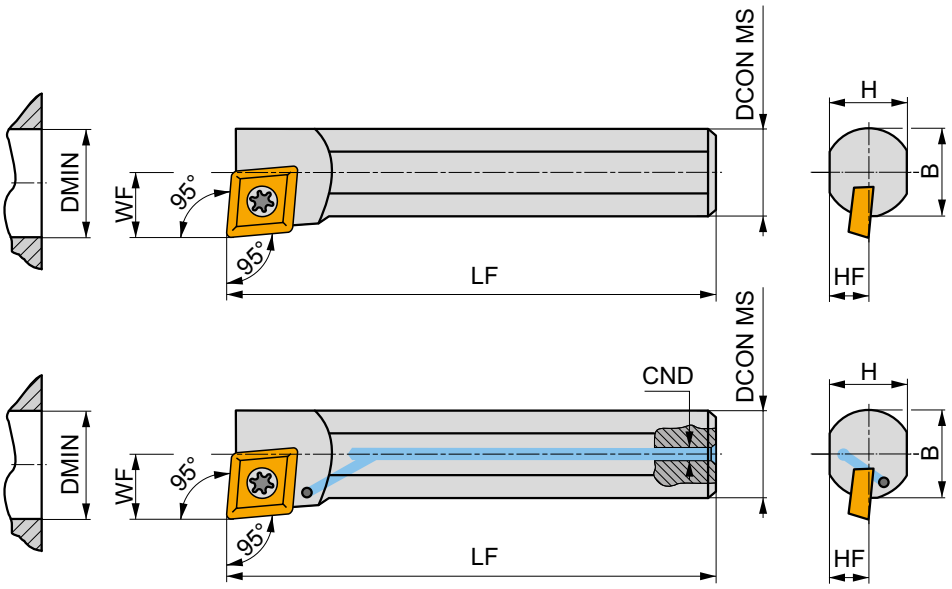
PRAMET

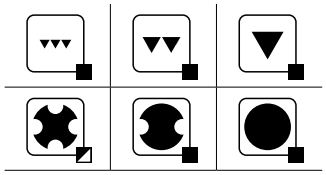
S

Internal Screw Lock Boring Bar with 95° Cutting Angle for CC.. Insert

Internal Right/Left hand boring bar, through coolant available, 95° cutting angle for screw type CC.. 06, 08, 09 or 12 inserts. Minimum internal turning diameter Ø11 mm. For internal longitudinal turning with shoulder, taper and chamfer turning. Available with shank size Ø8 to Ø32 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	CND [mm]	LAMS [°]	GAMO [°]		kg		
R	A08H-SCLCR 06	8	11	6	7.2	7.6	100	3.5	-13	0	✓	0.06	GI045	S02
	S08F-SCLCR 06	8	11	6	7.2	7.6	80	–	-13	0	–	0.06	GI045	S02
	A10H-SCLCR 06	10	13	7	9	–	100	4	-10	0	✓	0.07	GI045	S02
	S10H-SCLCR 06	10	13	7	9	9.5	100	–	-10	0	–	0.08	GI045	S02
	A12K-SCLCR 06	12	16	9	11	–	125	5	-8	0	✓	0.11	GI045	S01
	S12K-SCLCR 06	12	16	9	11	11.5	125	–	-8	0	–	0.13	GI045	S01
	S16M-SCLCR 06	16	20	11	14.5	15	150	–	-8	0	–	0.25	GI045	S01
	A10K-SCLCR 08	10	12	6	9	9.5	125	4	-14	0	✓	0.09	GI232	SC22
	A12M-SCLCR 08	12	16	9	11	11.5	150	5	-5	0	✓	0.14	GI232	SC22
	A16R-SCLCR 08	16	20	11	14	15	200	6	-8	0	✓	0.28	GI232	SC22
	A16M-SCLCR 09-A	16	20	11	14.5	–	150	6	-8	0	✓	0.22	GI041	S05
	S16M-SCLCR 09-A	16	20	11	14.5	15	150	–	-8	0	–	0.25	GI041	S05
	A20Q-SCLCR 09	20	25	13	18	–	180	8	-5	0	✓	0.38	GI041	S08
	S20S-SCLCR 09	20	25	13	18	18.5	250	–	-5	0	–	0.62	GI041	S08
	A25R-SCLCR 09	25	32	17	23	23	200	8	-3	0	✓	0.60	GI041	S08
	S25T-SCLCR 09	25	32	17	23	23	300	–	-3	0	–	1.10	GI041	S08
	A32S-SCLCR 12-A	32	40	22	30	30	250	8	-10	0	✓	1.35	GI011	SC20
	S32U-SCLCR 12-A	32	40	22	30	30	350	–	-10	0	–	2.10	GI011	SC20
L	A08H-SCLCL 06	8	11	6	7.2	7.6	100	–	-13	0	✓	0.06	GI045	S02
	S08F-SCLCL 06	8	11	6	7.2	7.6	80	–	-13	0	–	0.05	GI045	S02
	A10H-SCLCL 06	10	13	7	9	–	100	4	-10	0	✓	0.06	GI045	S02
	S10H-SCLCL 06	10	13	7	9	9.5	100	–	-10	0	–	0.06	GI045	S02
	A12K-SCLCL 06	12	16	9	11	–	125	5	-8	0	✓	0.10	GI045	S01
	S12K-SCLCL 06	12	16	9	11	11.5	125	–	-8	0	–	0.11	GI045	S01
	S16M-SCLCL 06	16	20	11	14.5	15	150	–	-8	0	–	0.26	GI045	S01
	A10K-SCLCL 08	10	12	6	9	9.5	125	4	-14	0	✓	0.02	GI232	SC22
	A12M-SCLCL 08	12	16	9	11	11.5	150	5	-5	0	✓	0.14	GI232	SC22

	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	CND [mm]	LAMS [°]	GAMO [°]		kg		
L	**A16R-SCLCL 08**	16	20	11	14	15	200	6	-8	0	✓	0.30	GI232	SC22
	A16M-SCLCL 09-A	16	20	11	14.5	–	150	6	-8	0	✓	0.22	GI041	S05
	S16M-SCLCL 09-A	16	20	11	14.5	15	150	–	-8	0	–	0.24	GI041	S05
	A20Q-SCLCL 09	20	25	13	18	–	180	8	-5	0	✓	0.40	GI041	S08
	S20S-SCLCL 09	20	25	13	18	18.5	250	–	-5	0	–	0.60	GI041	S08
	A25R-SCLCL 09	25	32	17	23	23	200	8	-3	0	✓	0.67	GI041	S08
	S25T-SCLCL 09	25	32	17	23	23	300	–	-3	0	–	1.15	GI041	S08
	A32S-SCLCL 12-A	32	40	22	30	30	250	8	-10	0	✓	1.35	GI011	SC20
	S32U-SCLCL 12-A	32	40	22	30	30	350	–	-10	0	–	2.10	GI011	SC20

GI011	CC.. 1204..
GI041	CC.. 09T3..
GI045	CC.. 0602..
GI232	CC.. 0803..

		Nm						
SC20	US 5012-T15P	5.0	M 5	12.2	SCN 120304	MS 5008	FLAG T15P	HXK 5
SC22	5513 020-04	1.5	M 3	7.2	–	–	PT-8003	–
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S02	US 2505-T07P	0.9	M 2.5	5.2	–	–	FLAG T07P	–
S05	US 4008-T15P	3.5	M 4	8	–	–	FLAG T15P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SCXC(RL) INT

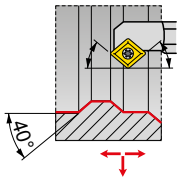
P M K N S H

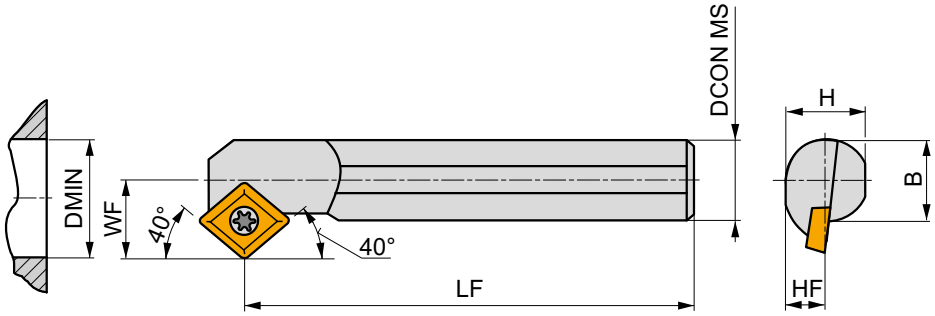
PRAMET

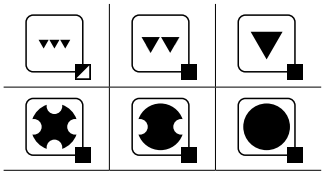
S

Internal Screw Lock Boring Bar with 40° Cutting Angle for CC.. Insert

Internal Right/Left hand boring bar, 40° cutting angle for screw type CC.. 06 inserts. Minimum internal turning diameter Ø13 mm. Suited for internal front and back chamfering, longitudinal turning without shoulder and taper turning. Available with shank size Ø10 up to Ø16 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S10H-SCXCR 06	10	13	7	9	9.5	100	-10	0	0.06	GI045	S06
	S12K-SCXCR 06	12	16	9	11	11.5	125	-8	0	0.11	GI045	S06
	S16Q-SCXCR 06	16	20	11	14.5	15	180	-7	0	0.31	GI045	S07
L	S10H-SCXCL 06	10	13	7	9	9.5	100	-10	0	0.06	GI045	S06
	S12K-SCXCL 06	12	16	9	11	11.5	125	-8	0	0.11	GI045	S06
	S16Q-SCXCL 06	16	20	11	14.5	15	180	-7	0	0.30	GI045	S07

GI045	CC.. 0602..

		Nm			
S06	US 2505-T07P	0.9	M 2.5	5.2	FLAG T07P
S07	US 2506-T07P	0.9	M 2.5	6.3	FLAG T07P

C.-SCLC(RL) INT

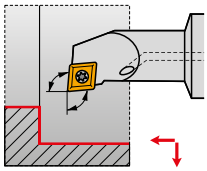
P M K N S H

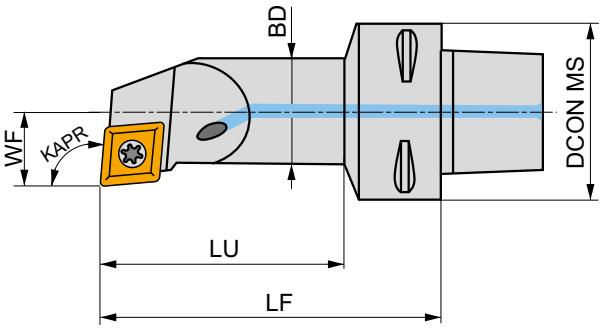
PRAMET

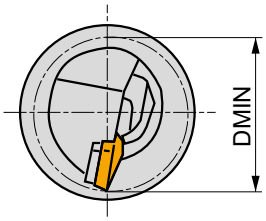
S

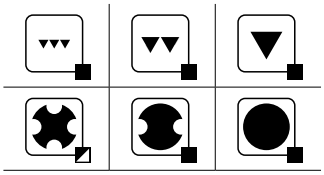
Internal PSC Quick Change Tool, Screw Lock, 95° Cutting Angle for CC.. Insert

Internal Right/Left hand tool, through coolant, with 95° cutting angle for screw type CC.. 09 inserts. Minimum internal turning diameter Ø20 mm. Suited for a wide range of internal turning applications. PSC shank (Polygon Shank Coupling) size C3 up to C5 with choice of lengths. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SCLCR-11065-09	32	20	11	65	48	16	95	-8.4	0	✓	0.21	GI041	SC09M
	C3-SCLCR-13075-09	32	25	13	75	58	20	95	-5.8	0	✓	0.26	GI041	SC09M
	C4-SCLCR-11070-09	40	20	11	70	47	16	95	-8.4	0	✓	0.36	GI041	SC09M
	C4-SCLCR-13080-09	40	25	13	80	57	20	95	-5.8	0	✓	0.41	GI041	SC09M
	C4-SCLCR-17090-09	40	32	17	90	68	25	95	-3.4	0	✓	0.50	GI041	SC09M
	C5-SCLCR-11070-09	50	20	11	70	46	16	95	-8.4	0	✓	0.55	GI041	SC09M
	C5-SCLCR-13080-09	50	25	13	80	56	20	95	-5.8	0	✓	0.60	GI041	SC09M
L	C4-SCLCL-11070-09	40	20	11	70	47	16	95	-8.4	0	✓	0.36	GI041	SC09M
	C4-SCLCL-13080-09	40	25	13	80	57	20	95	-5.8	0	✓	0.62	GI041	SC09M
	C5-SCLCL-11070-09	50	20	11	70	46	16	95	-8.4	0	✓	0.55	GI041	SC09M
	C5-SCLCL-13080-09	50	25	13	80	56	20	95	-5.8	0	✓	0.60	GI041	SC09M

GI041	CC.. 09T3..

		Nm			
SC09M	US 2009-T15P	3.0	M 3.5	8.1	FLAG T15P/3,5

CP 05

CARBIDE INSERTS

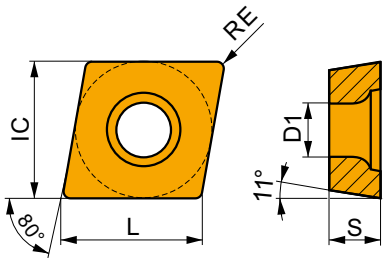
CPGX

83

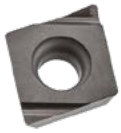
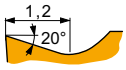
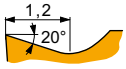
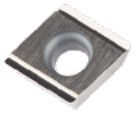
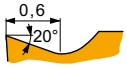
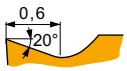
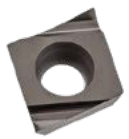
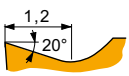
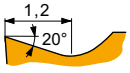
CPGX

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.40	2.38
0803	7.940	3.40	8.10	3.18
09T3	9.525	4.40	9.70	3.97



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			 FR-JQ positive geometry with right-handed design for fine-finish machining and continuous cuts.																	
CPGX 080304FR-JQ	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			 FL-JQ positive geometry with left-handed design for fine-finish machining and continuous cuts.																	
CPGX 080304FL-JQ	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
CPGX 09T304FL-JQ	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			 FR-JR positive geometry with right-handed design for fine-finish machining and continuous cuts.																	
CPGX 060204FR-JR	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
CPGX 080304FR-JR	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			 FL-JR positive geometry with left-handed design for fine-finish machining and continuous cuts.																	
CPGX 060204FL-JR	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
CPGX 080304FL-JR	**TT010**	0.4	■ 350	0.06	0.5	◪ 210	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			 FR-JZ positive geometry with right-handed design for fine-finish machining and continuous cuts.																	
CPGX 060202FR-JZ	**TT010**	0.2	■ 330	0.06	0.5	◪ 195	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			 FL-JZ positive geometry with left-handed design for fine-finish machining and continuous cuts.																	
CPGX 060202FL-JZ	**TT010**	0.2	■ 330	0.06	0.5	◪ 195	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–

DC

07 / 11 / 15

CARBIDE INSERTS

DCGT

86

DCMT

87

DCMW

92

CBN & PCD INSERTS

DCGW CBN

92

DCMW PCD

93

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
DCMT 070204E-UR	SDJCR 0808 D 07

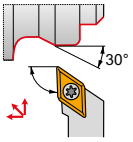
ISO TURNING – EXTERNAL

SDJC(RL) EXT

93°

DC..

07
11
15



08×08
25×25

94

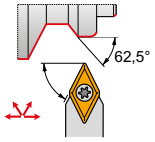
86 – 93

SDNCN EXT

62°30´

DC..

7
11



08×08
25×25

95

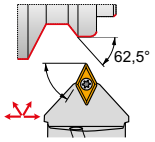
86 – 93

C.-SDNCN EXT

62°30´

DC..

11



C4
C5

97

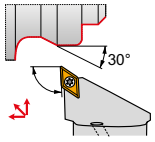
86 – 93

C.-SDJC(RL) EXT

93°

DC..

11



C3
C5

96

86 – 93

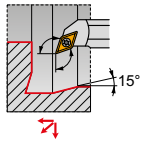
DC

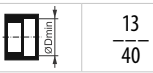
07 / 11 / 15

ISO TURNING – INTERNAL

SDQC(RL) INT

107°30´





DC..

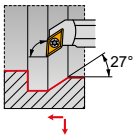
07
11

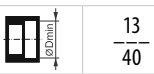
98

86 – 93

SDUC(RL) INT

93°





DC..

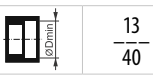
07
11

99

86 – 93

SDUC(RL)-E INT

93°



DC..

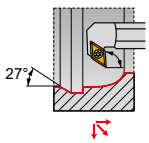
07
11

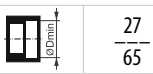
100

86 – 93

SDZC(RL) INT

93°





DC..

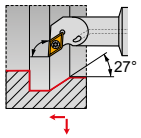
07
11

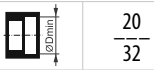
101

86 – 93

C.-SDUC(RL) INT

93°





DC..

07
11

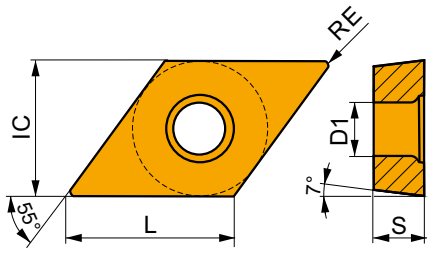
102

86 – 93

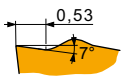
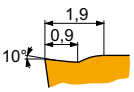
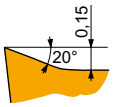
DCGT

PRAMET

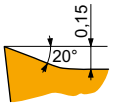
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0702	6.350	2.80	7.80	2.38
0702-SF3	6.350	2.80	7.80	2.58
11T3	9.525	4.40	11.60	3.97
11T3-SF3	9.525	4.40	11.60	4.22



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			F																	
AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																				
DCGT 070202F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	360	0.12	1.0	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	510	0.12	1.0	–	–	–	–	–	–
DCGT 070204F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	285	0.24	1.0	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	420	0.24	1.0	–	–	–	–	–	–
DCGT 11T302F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	345	0.12	1.5	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	495	0.12	1.5	–	–	–	–	–	–
DCGT 11T304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	270	0.24	1.5	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	390	0.24	1.5	–	–	–	–	–	–
DCGT 11T308F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	255	0.48	1.5	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	360	0.48	1.5	–	–	–	–	–	–
			U		E															
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
DCGT 11T302E-FF2	**T7325**	0.2	190	0.05	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	165	0.05	0.8	–	–	–	155	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	225	0.05	0.8	–	–	–	185	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	280	0.05	0.8	–	–	–	265	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	275	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			U		E															
NF1 geometry with positive design for fine-finish to medium machining, and continuous cuts.																				
DCGT 11T304E-NF1	**T6310**	0.4	145	0.10	0.8	100	0.09	0.8	–	–	–	435	0.12	0.8	40	0.07	0.6	25	0.15	1.0
	T7325	0.4	165	0.10	0.8	125	0.09	0.8	–	–	–	–	–	–	50	0.07	0.6	–	–	–
DCGT 11T308E-NF1	**T6310**	0.8	155	0.14	0.8	110	0.13	0.8	–	–	–	465	0.17	0.8	45	0.13	0.6	30	0.15	1.0
	T7325	0.8	180	0.14	0.8	140	0.13	0.8	–	–	–	–	–	–	55	0.13	0.6	–	–	–
			E																	
SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
DCGT 070201E-SF3	**T6310**	0.1	160	0.05	0.5	115	0.05	0.5	125	0.05	0.5	480	0.06	0.5	45	0.04	0.4	30	0.15	1.0
DCGT 070202E-SF3	**H07**	0.2	–	–	–	95	0.05	0.8	150	0.05	0.8	485	0.06	0.8	45	0.04	0.6	–	–	–
	T6310	0.2	165	0.05	0.8	115	0.05	0.8	130	0.05	0.8	495	0.06	0.8	45	0.04	0.6	30	0.15	1.0
	T8315	0.2	175	0.05	0.8	105	0.05	0.8	165	0.05	0.8	525	0.06	0.8	40	0.04	0.6	35	0.15	1.0
DCGT 070204E-SF3	**H07**	0.4	–	–	–	75	0.09	0.8	120	0.10	0.8	390	0.12	0.8	35	0.07	0.6	–	–	–
	T6310	0.4	145	0.10	0.8	100	0.09	0.8	115	0.10	0.8	435	0.12	0.8	40	0.07	0.6	25	0.15	1.0
	T8315	0.4	155	0.10	0.8	90	0.09	0.8	145	0.10	0.8	465	0.12	0.8	35	0.07	0.6	30	0.15	1.0
DCGT 11T301E-SF3	**T6310**	0.1	160	0.05	0.5	115	0.05	0.5	125	0.05	0.5	480	0.06	0.5	45	0.04	0.4	30	0.15	1.0

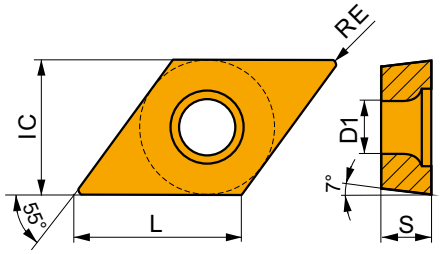
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																	
DCGT 11T302E-SF3	**H07**	0.2	–	–	–	95	0.05	0.8	150	0.05	0.8	485	0.06	0.8	45	0.04	0.6	–	–	–
	T6310	0.2	165	0.05	0.8	115	0.05	0.8	130	0.05	0.8	495	0.06	0.8	45	0.04	0.6	30	0.15	1.0
DCGT 11T304E-SF3	**H07**	0.4	–	–	–	75	0.09	0.8	120	0.10	0.8	390	0.12	0.8	35	0.07	0.6	–	–	–
	T6310	0.4	145	0.10	0.8	100	0.09	0.8	115	0.10	0.8	435	0.12	0.8	40	0.07	0.6	25	0.15	1.0
	T8315	0.4	155	0.10	0.8	90	0.09	0.8	145	0.10	0.8	465	0.12	0.8	35	0.07	0.6	30	0.15	1.0
DCGT 11T308E-SF3	**H07**	0.8	–	–	–	90	0.09	0.8	145	0.10	0.8	455	0.12	0.8	45	0.08	0.6	–	–	–
	T6310	0.8	170	0.10	0.8	120	0.09	0.8	135	0.10	0.8	510	0.12	0.8	50	0.08	0.6	30	0.15	1.0
	T8315	0.8	180	0.10	0.8	105	0.09	0.8	170	0.10	0.8	540	0.12	0.8	45	0.08	0.6	35	0.15	1.0
																				
			ER-SI geometry with positive right-handed design for fine-finish machining, and continuous cuts.																	
DCGT 11T304ER-SI	**T8330**	0.4	170	0.12	0.8	100	0.11	0.8	160	0.12	0.8	–	–	–	40	0.10	0.6	–	–	–
	T8430	0.4	205	0.12	0.8	110	0.11	0.8	170	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
DCGT 11T308ER-SI	**T8330**	0.8	170	0.22	1.0	100	0.20	1.0	160	0.22	1.0	–	–	–	40	0.18	0.8	–	–	–
	T8430	0.8	190	0.22	1.0	105	0.20	1.0	155	0.22	1.0	–	–	–	40	0.18	0.8	–	–	–
																				
			EL-SI geometry with positive left-handed design for fine-finish machining, and continuous cuts.																	
DCGT 11T304EL-SI	**T8330**	0.4	170	0.12	0.8	100	0.11	0.8	160	0.12	0.8	–	–	–	40	0.10	0.6	–	–	–
	T8430	0.4	205	0.12	0.8	110	0.11	0.8	170	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
DCGT 11T308EL-SI	**T8430**	0.8	190	0.22	1.0	105	0.20	1.0	155	0.22	1.0	–	–	–	40	0.18	0.8	–	–	–

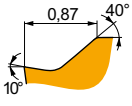
DCMT

PRAMET

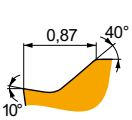
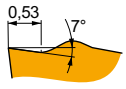
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0702	6.350	2.80	7.80	2.38
11T3	9.525	4.40	11.60	3.97
1504	12.700	5.50	15.50	4.76



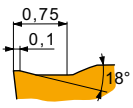
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			FF geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																	
DCMT 11T302E-FF	**T8315**	0.2	160	0.10	0.8	95	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	150	0.10	0.8	90	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.2	185	0.10	0.8	100	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.2	255	0.10	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

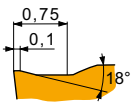
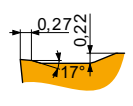
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FF geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
DCMT 11T304E-FF	**T8315**	0.4	◪ 160	0.12	0.8	◪ 95	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 150	0.12	0.8	◪ 90	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 185	0.12	0.8	◪ 100	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 255	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T308E-FF	**T8315**	0.8	◪ 180	0.15	0.8	◪ 105	0.14	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 170	0.15	0.8	◪ 100	0.14	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 200	0.15	0.8	◪ 110	0.14	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 270	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
DCMT 070202E-FF2	**T7325**	0.2	◪ 190	0.05	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	■ 165	0.05	0.8	–	–	–	■ 155	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 225	0.05	0.8	–	–	–	◪ 185	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 280	0.05	0.8	–	–	–	◪ 265	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	■ 275	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DCMT 070204E-FF2	**T7325**	0.4	◪ 160	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 135	0.12	0.8	–	–	–	■ 125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 170	0.12	0.8	–	–	–	◪ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 230	0.12	0.8	–	–	–	◪ 215	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 205	0.12	0.8	–	–	–	◪ 190	0.12	0.8	–	–	–	–	–	–	–	–	–
DCMT 070208E-FF2	**T7325**	0.8	◪ 170	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 150	0.17	0.8	–	–	–	■ 140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 175	0.17	0.8	–	–	–	◪ 140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 235	0.17	0.8	–	–	–	◪ 220	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 215	0.17	0.8	–	–	–	◪ 200	0.17	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T304E-FF2	**T7325**	0.4	◪ 160	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 135	0.12	0.8	–	–	–	■ 125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 170	0.12	0.8	–	–	–	◪ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 230	0.12	0.8	–	–	–	◪ 215	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 205	0.12	0.8	–	–	–	◪ 190	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 175	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 280	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T308E-FF2	**T7325**	0.8	◪ 170	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 150	0.17	0.8	–	–	–	■ 140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 175	0.17	0.8	–	–	–	◪ 140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 235	0.17	0.8	–	–	–	◪ 220	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 215	0.17	0.8	–	–	–	◪ 200	0.17	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.8	■ 280	0.10	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
DCMT 070202E-FM	**T7325**	0.2	◪ 175	0.10	0.8	■ 135	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	◪ 160	0.10	0.8	■ 95	0.09	0.8	◪ 150	0.10	0.8	◪ 480	0.12	0.8	–	–	–	–	–	–
	T8330	0.2	■ 150	0.10	0.8	■ 90	0.09	0.8	◪ 140	0.10	0.8	◪ 450	0.12	0.8	–	–	–	–	–	–
	T8430	0.2	■ 185	0.10	0.8	■ 100	0.09	0.8	◪ 150	0.10	0.8	◪ 510	0.12	0.8	–	–	–	–	–	–
	T9315	0.2	■ 255	0.10	0.8	–	–	–	◪ 240	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 230	0.10	0.8	■ 135	0.09	0.8	◪ 215	0.10	0.8	–	–	–	–	–	–	–	–	–

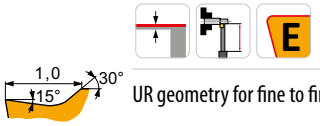
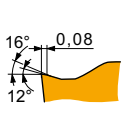
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
DCMT 070204E-FM	**T7325**	0.4	155	0.17	0.8	120	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	155	0.17	0.8	120	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	160	0.12	0.8	95	0.11	0.8	150	0.12	0.8	480	0.14	0.8	–	–	–	–	–	–
	T8330	0.4	150	0.12	0.8	90	0.11	0.8	140	0.12	0.8	450	0.14	0.8	–	–	–	–	–	–
	T8430	0.4	185	0.12	0.8	100	0.11	0.8	150	0.12	0.8	510	0.14	0.8	–	–	–	–	–	–
	T9315	0.4	255	0.12	0.8	–	–	–	240	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.18	0.8	110	0.16	0.8	180	0.18	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T302E-FM	**T7325**	0.2	175	0.10	0.8	135	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	160	0.10	0.8	95	0.09	0.8	150	0.10	0.8	480	0.12	0.8	–	–	–	–	–	–
	T8330	0.2	150	0.10	0.8	90	0.09	0.8	140	0.10	0.8	450	0.12	0.8	–	–	–	–	–	–
	T8430	0.2	185	0.10	0.8	100	0.09	0.8	150	0.10	0.8	510	0.12	0.8	–	–	–	–	–	–
	T9315	0.2	255	0.10	0.8	–	–	–	240	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	230	0.10	0.8	135	0.09	0.8	215	0.10	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T304E-FM	**T7325**	0.4	155	0.17	0.8	120	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	155	0.17	0.8	120	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	160	0.12	0.8	95	0.11	0.8	150	0.12	0.8	480	0.14	0.8	–	–	–	–	–	–
	T8330	0.4	135	0.17	0.8	80	0.15	0.8	125	0.17	0.8	405	0.20	0.8	–	–	–	–	–	–
	T8430	0.4	155	0.17	0.8	85	0.15	0.8	130	0.17	0.8	435	0.20	0.8	–	–	–	–	–	–
	T9310	0.4	285	0.12	0.8	–	–	–	270	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	255	0.12	0.8	–	–	–	240	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.18	0.8	110	0.16	0.8	180	0.18	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T308E-FM	**T7325**	0.8	185	0.17	0.8	140	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	180	0.17	0.8	140	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	170	0.17	0.8	100	0.15	0.8	160	0.17	0.8	510	0.20	0.8	–	–	–	–	–	–
	T8330	0.8	165	0.17	0.8	95	0.15	0.8	155	0.17	0.8	495	0.20	0.8	–	–	–	–	–	–
	T8430	0.8	190	0.17	0.8	105	0.15	0.8	155	0.17	0.8	525	0.20	0.8	–	–	–	–	–	–
	T9310	0.8	285	0.17	0.8	–	–	–	270	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	260	0.17	0.8	–	–	–	245	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	235	0.17	0.8	140	0.15	0.8	220	0.17	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T312E-FM	**T8330**	1.2	150	0.22	1.2	90	0.22	1.2	140	0.22	1.2	450	0.26	1.2	–	–	–	–	–	–
	T8430	1.2	175	0.22	1.2	95	0.22	1.2	140	0.22	1.2	480	0.26	1.2	–	–	–	–	–	–
	T9315	1.2	235	0.22	1.2	–	–	–	220	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	210	0.22	1.2	125	0.22	1.2	195	0.22	1.2	–	–	–	–	–	–	–	–	–
																				
			FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																	
DCMT 070204E-FM2	**T6310**	0.4	135	0.12	0.8	95	0.11	0.8	105	0.12	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.4	160	0.12	0.8	120	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	135	0.12	0.8	80	0.11	0.8	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	230	0.12	0.8	–	–	–	215	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	205	0.12	0.8	120	0.11	0.8	190	0.12	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T304E-FM2	**T6310**	0.4	135	0.12	0.8	95	0.11	0.8	105	0.12	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.4	160	0.12	0.8	120	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	135	0.12	0.8	80	0.11	0.8	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	230	0.12	0.8	–	–	–	215	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	205	0.12	0.8	120	0.11	0.8	190	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	175	0.12	0.8	105	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																				
DCMT 11T308E-FM2	**T6310**	0.8	150	0.17	0.8	105	0.15	0.8	120	0.17	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.8	170	0.17	0.8	130	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	150	0.17	0.8	90	0.15	0.8	140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	175	0.17	0.8	95	0.15	0.8	140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	235	0.17	0.8	–	–	–	220	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	215	0.17	0.8	125	0.15	0.8	200	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	180	0.17	0.8	105	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T312E-FM2	**T8430**	1.2	155	0.22	1.2	85	0.20	1.2	130	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	190	0.22	1.2	110	0.20	1.2	180	0.22	1.2	–	–	–	–	–	–	–	–	–
DCMT 150408E-FM2	**T9315**	0.8	205	0.20	1.5	–	–	–	190	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.20	1.5	110	0.18	1.5	175	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9335	0.8	160	0.20	1.5	95	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
																				
RF geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
DCMT 11T304E-RF	**T5315**	0.4	175	0.20	0.8	–	–	–	165	0.20	0.8	–	–	–	–	–	–	35	0.15	1.0
	T7335	0.4	115	0.20	0.8	85	0.18	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	150	0.20	0.8	90	0.18	0.8	140	0.20	0.8	–	–	–	–	–	–	–	–	–
DCMT 11T308E-RF	**T5315**	0.8	205	0.20	0.8	–	–	–	190	0.20	0.8	–	–	–	–	–	–	40	0.15	1.0
	T7335	0.8	140	0.20	0.8	105	0.18	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	175	0.20	0.8	105	0.18	0.8	165	0.20	0.8	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
DCMT 11T304E-RM	**T5305**	0.4	225	0.27	0.8	–	–	–	210	0.27	0.8	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.4	205	0.27	0.8	–	–	–	190	0.27	0.8	–	–	–	–	–	–	40	0.15	1.0
	T7335	0.4	135	0.27	0.8	105	0.24	0.8	–	–	–	–	–	–	40	0.19	0.6	–	–	–
	T8330	0.4	125	0.27	0.8	75	0.24	0.8	115	0.27	0.8	–	–	–	30	0.19	0.6	25	0.15	1.0
	T8430	0.4	135	0.27	0.8	75	0.24	0.8	110	0.27	0.8	–	–	–	25	0.19	0.6	20	0.15	1.0
	T9315	0.4	185	0.27	0.8	–	–	–	175	0.27	0.8	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.4	165	0.27	0.8	95	0.24	0.8	155	0.27	0.8	–	–	–	35	0.19	0.6	–	–	–
DCMT 11T308E-RM	**T5305**	0.8	270	0.27	0.8	–	–	–	255	0.27	0.8	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.8	240	0.27	0.8	–	–	–	225	0.27	0.8	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.8	165	0.27	0.8	125	0.24	0.8	–	–	–	–	–	–	50	0.19	0.6	–	–	–
	T8330	0.8	150	0.27	0.8	90	0.24	0.8	140	0.27	0.8	–	–	–	35	0.19	0.6	30	0.15	1.0
	T8430	0.8	165	0.27	0.8	90	0.24	0.8	135	0.27	0.8	–	–	–	35	0.19	0.6	25	0.15	1.0
	T9315	0.8	220	0.27	0.8	–	–	–	205	0.27	0.8	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	200	0.27	0.8	120	0.24	0.8	190	0.27	0.8	–	–	–	45	0.19	0.6	–	–	–
DCMT 11T312E-RM	**T7335**	1.2	165	0.27	1.2	125	0.24	1.2	–	–	–	–	–	–	50	0.19	1.2	–	–	–
	T8330	1.2	150	0.27	1.2	90	0.24	1.2	140	0.27	1.2	–	–	–	35	0.19	1.2	30	0.15	1.0
	T8430	1.2	170	0.27	1.2	90	0.24	1.2	135	0.27	1.2	–	–	–	35	0.19	1.2	25	0.15	1.0
	T9315	1.2	225	0.27	1.2	–	–	–	210	0.27	1.2	–	–	–	–	–	–	45	0.15	1.0
	T9325	1.2	200	0.27	1.2	120	0.24	1.2	190	0.27	1.2	–	–	–	45	0.19	1.2	–	–	–
DCMT 150408E-RM	**T8330**	0.8	135	0.27	1.9	80	0.24	1.9	125	0.27	1.9	–	–	–	30	0.22	1.5	25	0.15	1.0
	T8430	0.8	150	0.27	1.9	80	0.24	1.9	125	0.27	1.9	–	–	–	30	0.22	1.5	25	0.15	1.0
	T9315	0.8	200	0.27	1.9	–	–	–	190	0.27	1.9	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	180	0.27	1.9	105	0.24	1.9	170	0.27	1.9	–	–	–	40	0.22	1.5	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
DCMT 070202E-UR	**T7325**	0.2	◪	150	0.10	0.8	◪	115	0.09	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	◪	135	0.10	0.8	◪	80	0.09	0.8	■	125	0.10	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.2	■	130	0.10	0.8	◪	75	0.09	0.8	■	120	0.10	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■	155	0.10	0.8	◪	85	0.09	0.8	◪	130	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.2	■	220	0.10	0.8		–	–	–	◪	205	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■	200	0.10	0.8	◪	120	0.09	0.8	◪	190	0.10	0.8	–	–	–	–	–	–	–	–	–
DCMT 070204E-UR	**T7325**	0.4	◪	135	0.17	0.8	◪	105	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪	135	0.12	0.8	◪	80	0.11	0.8	■	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.4	■	130	0.12	0.8	◪	75	0.11	0.8	■	120	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■	155	0.12	0.8	◪	85	0.11	0.8	◪	130	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■	220	0.12	0.8		–	–	–	◪	205	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■	165	0.18	0.8	◪	95	0.16	0.8	◪	155	0.18	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.4	■	210	0.12	0.8	◪	125	0.11	0.8		–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T302E-UR	**T7325**	0.2	◪	150	0.10	0.8	◪	115	0.09	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	■	130	0.10	0.8	◪	75	0.09	0.8	■	120	0.10	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■	155	0.10	0.8	◪	85	0.09	0.8	◪	130	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.2	■	220	0.10	0.8		–	–	–	◪	205	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■	200	0.10	0.8	◪	120	0.09	0.8	◪	190	0.10	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.2	■	210	0.10	0.8	◪	125	0.09	0.8		–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T304E-UR	**T5315**	0.4	◪	220	0.12	0.8		–	–	–	■	205	0.12	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.4	◪	135	0.17	0.8	◪	105	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪	130	0.17	0.8	◪	100	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪	135	0.12	0.8	◪	80	0.11	0.8	■	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.4	■	130	0.12	0.8	◪	75	0.11	0.8	■	120	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■	155	0.12	0.8	◪	85	0.11	0.8	◪	130	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■	220	0.12	0.8		–	–	–	◪	205	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■	165	0.18	0.8	◪	95	0.16	0.8	◪	155	0.18	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.4	■	210	0.12	0.8	◪	125	0.11	0.8		–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T308E-UR	**T5315**	0.8	◪	230	0.17	0.8		–	–	–	■	215	0.17	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.8	◪	160	0.17	0.8	◪	120	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪	155	0.17	0.8	◪	120	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪	145	0.17	0.8	◪	85	0.15	0.8	■	135	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.8	■	140	0.17	0.8	◪	80	0.15	0.8	■	130	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■	165	0.17	0.8	◪	90	0.15	0.8	◪	135	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	■	225	0.17	0.8		–	–	–	◪	210	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■	200	0.17	0.8	◪	120	0.15	0.8	◪	190	0.17	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.8	■	225	0.17	0.8	◪	135	0.15	0.8		–	–	–	–	–	–	–	–	–	–	–	–
DCMT 11T312E-UR	**T9315**	1.2	■	205	0.22	1.2		–	–	–	◪	190	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	■	180	0.22	1.2	◪	105	0.20	1.2	◪	170	0.22	1.2	–	–	–	–	–	–	–	–	–
																				
DCMX 11T304W-FM	**T7325**	0.4	◪	130	0.30	0.8	■	100	0.27	0.8		–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■	115	0.30	0.8	■	65	0.27	0.8	■	105	0.30	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■	130	0.30	0.8	■	70	0.27	0.8	◪	105	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■	170	0.30	0.8		–	–	–	◪	160	0.30	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■	155	0.30	0.8	■	90	0.27	0.8	◪	145	0.30	0.8	–	–	–	–	–	–	–	–	–
DCMX 11T308W-FM	**T7325**	0.8	◪	140	0.40	1.0	■	105	0.36	1.0		–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.8	■	130	0.40	1.0	■	70	0.36	1.0	◪	105	0.40	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	■	175	0.40	1.0		–	–	–	◪	165	0.40	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■	160	0.40	1.0	■	95	0.36	1.0	◪	150	0.40	1.0	–	–	–	–	–	–	–	–	–

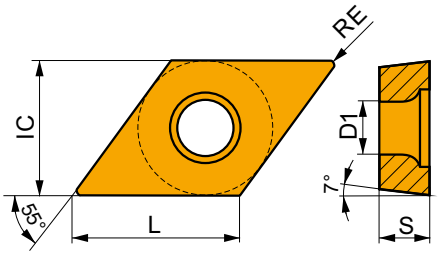
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.

W-FM wiper geometry for fine to finish machining with increased feed rates and improved surface finish.

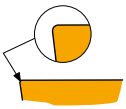
DCMW

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0702	6.350	2.80	7.80	2.38
11T3	9.525	4.40	11.60	3.97



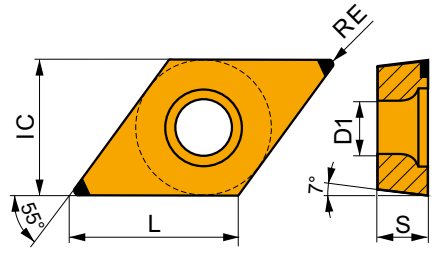
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
DCMW 070202	**T5305**	0.2	–	–	–	–	–	–	200	0.08	0.8	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.2	–	–	–	–	–	–	80	0.08	0.8	–	–	–	–	–	–	20	0.15	1.0
DCMW 070204	**T5305**	0.4	–	–	–	–	–	–	195	0.10	0.8	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	175	0.10	0.8	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	85	0.10	0.8	–	–	–	–	–	–	20	0.15	1.0
DCMW 11T304	**T5305**	0.4	–	–	–	–	–	–	190	0.10	1.2	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	165	0.10	1.2	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	80	0.10	1.2	–	–	–	–	–	–	20	0.15	1.0
DCMW 11T308	**T5305**	0.8	–	–	–	–	–	–	185	0.18	1.2	–	–	–	–	–	–	35	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	160	0.18	1.2	–	–	–	–	–	–	30	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	80	0.18	1.2	–	–	–	–	–	–	20	0.15	1.0

DCGW CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
11T3	9.525	4.50	11.60	3.97



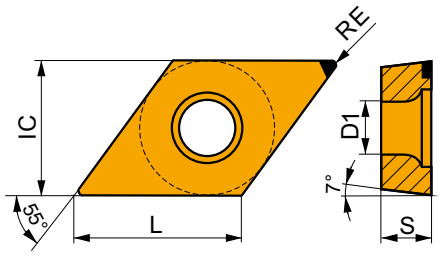
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC		S															
			For finish machining.																	
DCGW 11T304S01020B	**TB310**	0.4	–	–	–	–	–	–	370	0.10	0.4	–	–	–	95	0.07	0.3	75	0.15	1.0
DCGW 11T308S01020B	**TB310**	0.8	–	–	–	–	–	–	380	0.15	0.6	–	–	–	100	0.11	0.5	80	0.15	1.0

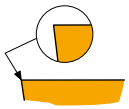
DCMW PCD

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
11T3	9.525	4.40	11.60	3.97



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC F																	
			For finish machining, high speeds and stable cutting conditions.																	
DCMW 11T304FN	**PD1**	0.4	–	–	–	–	–	–	–	–	–	■ 1035	0.12	0.5	–	–	–	–	–	–
DCMW 11T308FN	**PD1**	0.8	–	–	–	–	–	–	–	–	–	■ 1200	0.12	1.0	–	–	–	–	–	–

SDJC(RL) EXT

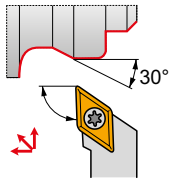
P M K N S H

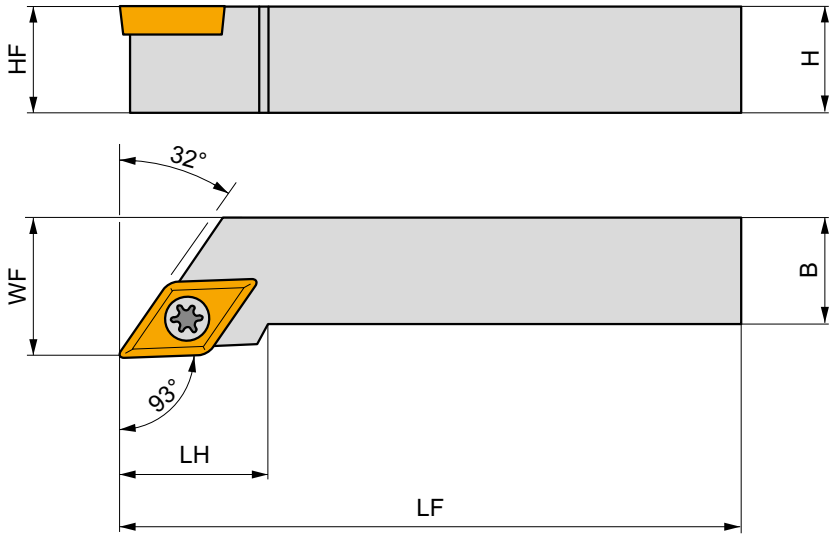
PRAMET

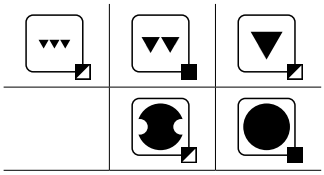
S

External Screw Lock Tool Holder with 93° Cutting Angle for DC.. Insert

External Right/Left hand tool holder with 93° cutting angle for screw type positive DC.. 07, 11 or 15 inserts. Suited for external longitudinal turning with shoulder, copy, taper and chamfer turning. Available with shank size 08x08 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SDJCR 0808 D 07	8	8	8	10	60	14	0	0	0.06	GI052	S01
	SDJCR 1010 E 07	10	10	10	12	70	14	0	0	0.06	GI052	S01
	SDJCR 1212 F 07	12	12	12	16	80	14	0	0	0.11	GI052	S01
	SDJCR 1212 F 11	12	12	12	16	80	20	0	0	0.10	GI012	S08
	SDJCR 1616 H 11	16	16	16	20	100	20	0	0	0.22	GI012	S08
	SDJCR 2020 K 11-M-A	20	20	20	25	125	20	0	0	0.40	GI012	SD10
	SDJCR 2525 M 11-M-A	25	25	25	32	150	20	0	0	0.74	GI012	SD10
	SDJCR 2525 M 15	25	25	25	32	150	28	0	0	0.75	GI243	SD11
L	SDJCL 0808 D 07	8	8	8	10	60	14	0	0	0.04	GI052	S01
	SDJCL 1010 E 07	10	10	10	12	70	14	0	0	0.08	GI052	S01
	SDJCL 1212 F 07	12	12	12	16	80	14	0	0	0.12	GI052	S01
	SDJCL 1212 F 11	12	12	12	16	80	20	0	0	0.12	GI012	S08
	SDJCL 1616 H 11	16	16	16	20	100	20	0	0	0.20	GI012	S08
	SDJCL 2020 K 11-M-A	20	20	20	25	125	20	0	0	0.41	GI012	SD10
	SDJCL 2525 M 11-M-A	25	25	25	32	150	20	0	0	0.74	GI012	SD10
	SDJCL 2525 M 15	25	25	25	32	150	28	0	0	0.07	GI243	SD11

GI012	DC.. 11T3..
GI052	DC.. 0702..
GI243	DC.. 1504..

		Nm						
SD10	US 3510-T15P	3.0	M 3.5	10.6	SDN 110304	MS 3510	FLAG T15P	HXK 3.5
SD11	US 64518-T15P	5.0	M 4.5	18	SDN 150304	MS 4512	FLAG T15P	HXK 5
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SDNCN EXT

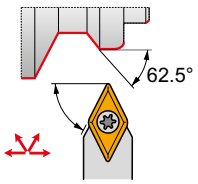
P M K N S H

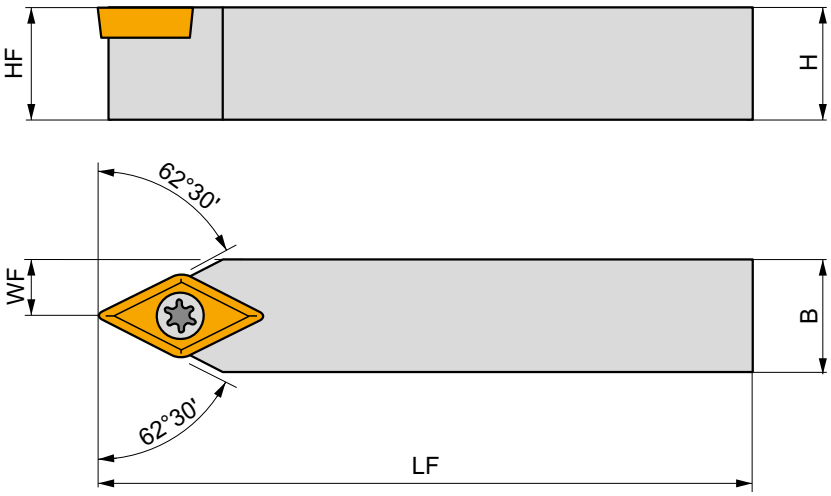
PRAMET

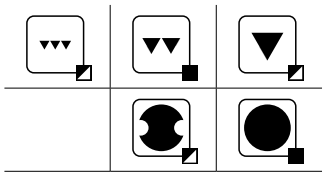
S

External Screw Lock Tool Holder with 62.5° Cutting Angle for DC.. Insert

External neutral tool holder with 62.5° cutting angle for screw type positive DC.. 07 or 11 inserts. Suited for external longitudinal turning without shoulder, copy, taper and chamfer turning. Available with shank size 08x08 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
N	**SDNCN 0808 D 07**	8	8	8	4	60	0	0	0.06	GI052	S01
	SDNCN 1010 E 07	10	10	10	5	70	0	0	0.08	GI052	S01
	SDNCN 1212 F 07	12	12	12	6	80	0	0	0.12	GI052	S01
	SDNCN 1212 F 11	12	12	12	6	80	0	0	0.12	GI012	S08
	SDNCN 1616 H 11	16	16	16	8	100	0	0	0.18	GI012	S08
	SDNCN 2020 K 11-M-A	20	20	20	10	125	0	0	0.35	GI012	SD10
	SDNCN 2525 M 11-M-A	25	25	25	12.5	150	0	0	0.70	GI012	SD10

GI012	DC.. 11T3..
GI052	DC.. 0702..

		Nm						
SD10	US 3510-T15P	3.0	M 3.5	10.6	SDN 110304	MS 3510	FLAG T15P	HXK 3.5
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

C.-SDJC(RL) EXT

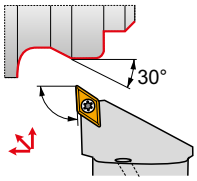
P M K N S H

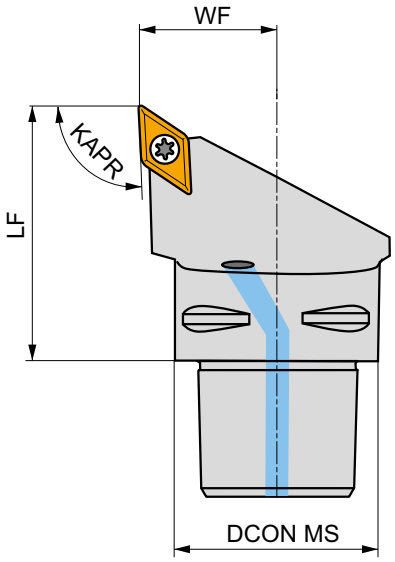
PRAMET

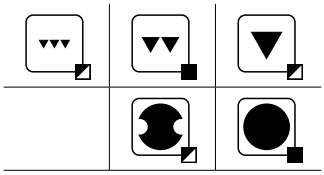
S

External PSC Quick Change Tool, Screw Lock, 93° Cutting Angle for DC.. Insert

External Right/Left hand tool, through coolant, with 93° cutting angle for screw type positive DC.. 07, 11 or 15 inserts. Suited for external longitudinal turning with shoulder, copy, taper and chamfer turning. Available with PSC (Polygon Shank Coupling) size C3 up to C5. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SDJCR-22040-11	32	22	40	93	0	0	✓	0.21	GI012	C-SD11V-1
	C4-SDJCR-27050-11	40	27	50	93	0	0	✓	0.38	GI012	C-SD11V-1
	C5-SDJCR-35060-11	50	35	60	93	0	0	✓	0.69	GI012	C-SD11V-2
L	C3-SDJCL-22040-11	32	22	40	93	0	0	✓	0.21	GI012	C-SD11V-1
	C4-SDJCL-27050-11	40	27	50	93	0	0	✓	0.38	GI012	C-SD11V-1
	C5-SDJCL-35060-11	50	35	60	93	0	0	✓	0.70	GI012	C-SD11V-2

GI012	DC.. 11T3..

		Nm						
C-SD11V-1	US 2001-T15P	3.0	M 3.5	12.1	SDS 263-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SD11V-2	US 2001-T15P	3.0	M 3.5	12.1	SDS 263-01	MS 9001	FLAG T15P/3,5	CN 034-02

C.-SDNCN EXT

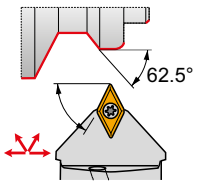
P M K N S H

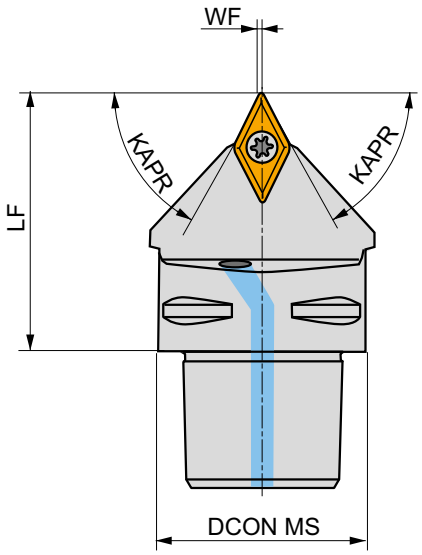
PRAMET

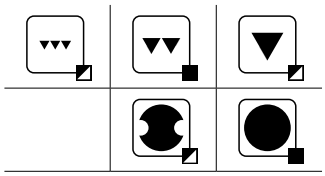
S

External PSC Quick Change Tool, Screw Lock, 62.5° Cutting Angle, DC.. Insert

External Right/Left hand tool, through coolant, with 62.5° cutting angle for screw type positive DC.. 11 inserts. Suited for external longitudinal turning without shoulder, copy, taper and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 and C5. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
N	**C4-SDNCN-00050-11**	40	0.5	50	62.5	0	0	✓	0.35	GI012	C-SD11V-1
	C5-SDNCN-00060-11	50	0.5	60	62.5	0	0	✓	0.62	GI012	C-SD11V-2

GI012	DC.. 11T3..

		Nm						
C-SD11V-1	US 2001-T15P	3.0	M 3.5	12.1	SDS 263-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SD11V-2	US 2001-T15P	3.0	M 3.5	12.1	SDS 263-01	MS 9001	FLAG T15P/3,5	CN 034-02

SDQC(RL) INT

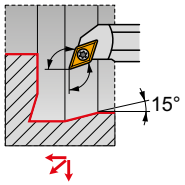
P M K N S H

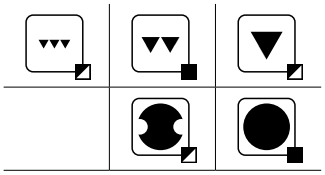
PRAMET

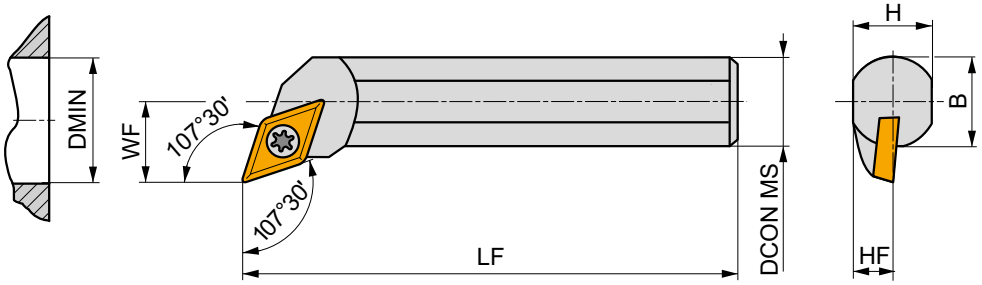
S

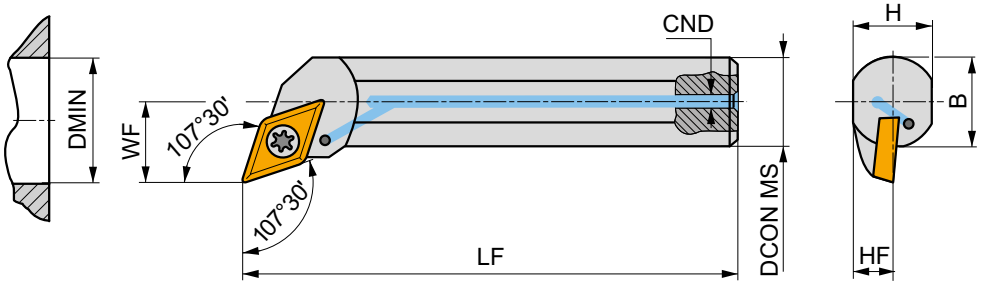
Internal Screw Lock Boring Bar with 107.5° Cutting Angle for DC.. Insert

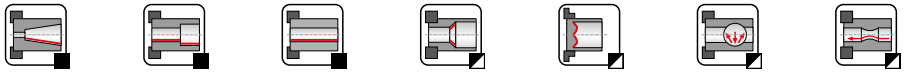
Internal Right/Left hand boring bar, through coolant available, 107.5° cutting angle for screw type DC.. 07 or 11 inserts. Minimum internal turning diameter Ø13 mm. For internal longitudinal turning with shoulder, taper, copying and chamfer turning. Ø10 to Ø32 mm shanks available. Body treated for longer tool life.











	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	CND [mm]	LAMS [°]	GAMO [°]		kg		
R	A10H-SDQCR 07	10	13	7	9	–	100	4	-10	0	✓	0.07	GI052	S02
	A12K-SDQCR 07	12	16	9	11	–	125	5	-7	0	✓	0.10	GI052	S02
	A16M-SDQCR 07	16	20	11	14.5	–	150	6	-7	0	✓	0.24	GI052	S01
	A20Q-SDQCR 11	20	25	13	18	–	180	8	-5	0	✓	0.40	GI012	S08
	S20S-SDQCR 11	20	25	13	18	18.5	250	–	-5	0	–	0.60	GI012	S08
	A25R-SDQCR 11	25	32	17	23	23	200	8	-3	0	✓	0.67	GI012	S08
	S25T-SDQCR 11	25	32	17	23	23	300	–	-3	0	–	1.09	GI012	S08
	A32S-SDQCR 11-A	32	40	22	30	30	250	8	-10	0	✓	1.25	GI012	SD10
	S32U-SDQCR 11-A	32	40	22	30	30	350	–	-10	0	–	2.10	GI012	SD10
L	A10H-SDQCL 07	10	13	7	9	–	100	4	-10	0	✓	0.06	GI052	S02
	A12K-SDQCL 07	12	16	9	11	–	125	5	-7	0	✓	0.11	GI052	S02
	A16M-SDQCL 07	16	20	11	14.5	–	150	6	-7	0	✓	0.24	GI052	S01
	A20Q-SDQCL 11	20	25	13	18	–	180	8	-5	0	✓	0.37	GI012	S08
	S20S-SDQCL 11	20	25	13	18	18.5	250	–	-5	0	–	0.63	GI012	S08
	A25R-SDQCL 11	25	32	17	23	23	200	8	-3	0	✓	0.64	GI012	S08
	S25T-SDQCL 11	25	32	17	23	23	300	–	-3	0	–	1.15	GI012	S08
	A32S-SDQCL 11-A	32	40	22	30	30	250	8	-10	0	✓	1.33	GI012	SD10
	S32U-SDQCL 11-A	32	40	22	30	30	350	–	-10	0	–	2.08	GI012	SD10

GI012	DC.. 11T3..
GI052	DC.. 0702..

		Nm						
SD10	US 3510-T15P	3.0	M 3.5	10.6	SDN 110304	MS 3510	FLAG T15P	HXK 3.5
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S02	US 2505-T07P	0.9	M 2.5	5.2	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SDUC(RL) INT

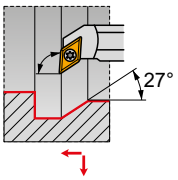
P M K N S H

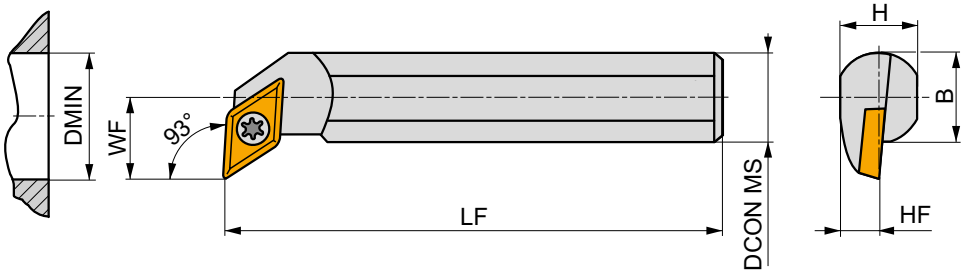
PRAMET

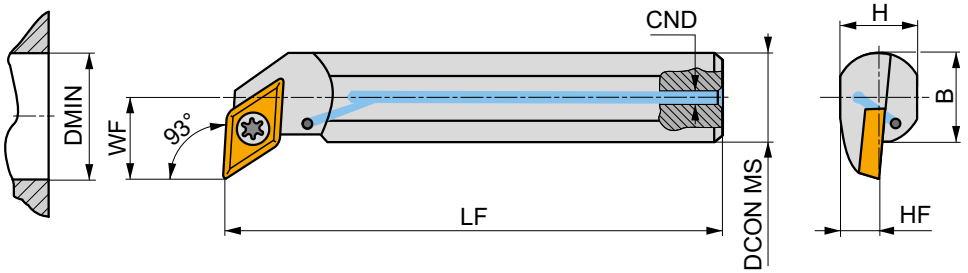
S

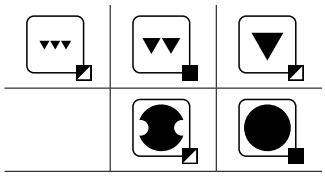
Internal Screw Lock Boring Bar with 93° Cutting Angle for DC.. Insert

Internal Right/Left hand boring bar, through coolant available, 93° cutting angle for screw type DC.. 07 or 11 inserts. Minimum internal turning diameter Ø13 mm. For internal longitudinal turning with shoulder, taper, copying and chamfer turning. Ø10 up to Ø32 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	CND [mm]	LAMS [°]	GAMO [°]		kg		
R	A10H-SDUCR 07	10	13	7	9	–	100	4	-10	0	✓	0.05	GI052	S02
	A12K-SDUCR 07	12	16	9	11	–	125	5	-7	0	✓	0.12	GI052	S02
	A16M-SDUCR 07	16	20	11	14.5	–	150	6	-7	0	✓	0.22	GI052	S01
	A20Q-SDUCR 11	20	25	13	18	–	180	8	-3	0	✓	0.38	GI012	S08
	S20S-SDUCR 11	20	25	13	18	18.5	250	–	-5	0	–	0.60	GI012	S08
	A25R-SDUCR 11	25	32	17	23	23	200	8	-3	0	✓	0.60	GI012	S08
	S25T-SDUCR 11	25	32	17	23	23	300	–	-3	0	–	1.15	GI012	S08
	A32S-SDUCR 11-A	32	40	22	30	30	250	8	-10	0	✓	1.30	GI012	SD10
	S32U-SDUCR 11-A	32	40	22	30	30	350	–	-10	0	–	2.10	GI012	SD10
L	A10H-SDUCL 07	10	13	7	9	–	100	4	-10	0	✓	0.06	GI052	S02
	A12K-SDUCL 07	12	16	9	11	–	125	5	-7	0	✓	0.11	GI052	S02
	A16M-SDUCL 07	16	20	11	14.5	–	150	6	-7	0	✓	0.21	GI052	S01
	A20Q-SDUCL 11	20	25	13	18	–	180	8	-3	0	✓	0.38	GI012	S08
	S20S-SDUCL 11	20	25	13	18	18.5	250	–	-5	0	–	0.60	GI012	S08
	A25R-SDUCL 11	25	32	17	23	23	200	8	-3	0	✓	0.67	GI012	S08
	S25T-SDUCL 11	25	32	17	23	23	300	–	-3	0	–	1.15	GI012	S08
	A32S-SDUCL 11-A	32	40	22	30	30	250	8	-10	0	✓	1.35	GI012	SD10
	S32U-SDUCL 11-A	32	40	22	30	30	350	–	-10	0	–	2.09	GI012	SD10

GI012	DC.. 11T3..
GI052	DC.. 0702..

		Nm						
SD10	US 3510-T15P	3.0	M 3.5	10.6	SDN 110304	MS 3510	FLAG T15P	HXK 3.5
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S02	US 2505-T07P	0.9	M 2.5	5.2	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

SDUC(RL)-E INT

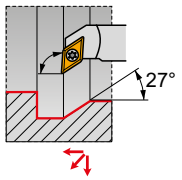
P M K N S H

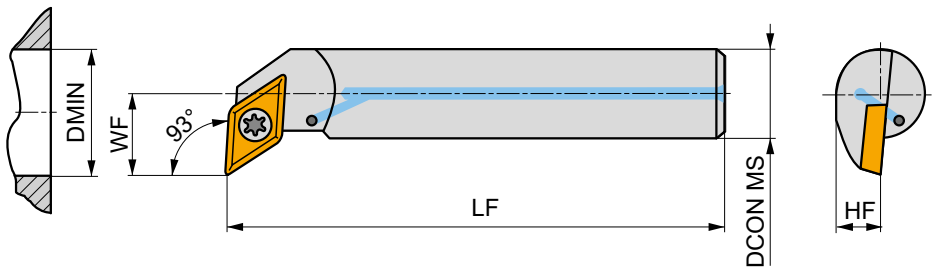
PRAMET

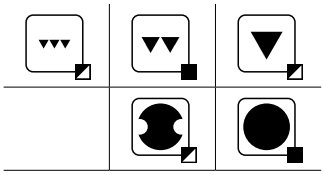
S

Internal Carbide Screw Lock Boring Bar with 93° Cutting Angle for DC.. Insert

Internal Right/Left hand carbide boring bar, through coolant, 93° cutting angle for screw type positive DC.. 07 inserts. Minimum internal turning diameter Ø15 mm. For internal longitudinal turning with shoulder, taper, copying and chamfer turning. Ø10 up to Ø16 mm shanks available. For tool overhang >3xD.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	HF [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	E10M-SDUCR 07-ER	10	15	9	5.6	150	-5	0	✓	0.14	GI052	SD21
	E12Q-SDUCR 07-ER	12	18	11	6.5	150	-5	0	✓	0.26	GI052	SD21
	E16R-SDUCR 07-ER	16	22	13	8.5	150	-5	0	✓	0.49	GI052	SD21
L	E10M-SDUCL 07-ER	10	15	9	5.6	150	-5	0	✓	0.15	GI052	SD21
	E12Q-SDUCL 07-ER	12	18	11	6.5	150	-5	0	✓	0.26	GI052	SD21
	E16R-SDUCL 07-ER	16	22	13	8.5	150	-5	0	✓	0.50	GI052	SD21

GI052	DC.. 0702..

SD21	5513 020-03	0.8	M 2.5	6.5	PT-8001

SDZC(RL) INT

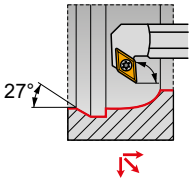
P M K N S H

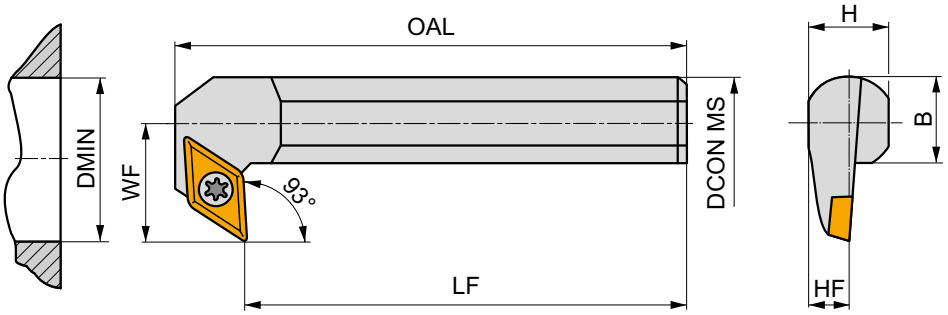
PRAMET

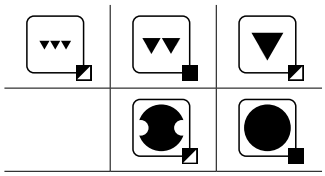
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for DC.. Insert

Internal Right/Left hand boring bar with 93° cutting angle for screw type DC.. 07 or 11 inserts. Minimum internal turning diameter Ø27 mm. Suited for internal longitudinal back turning with shoulder, taper, copying and chamfer turning. Available with shank size Ø16 up to Ø40 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	OAL [mm]	LAMS [°]	GAMO [°]	kg		
R	S16M-SDZCR 07-93	16	27	17	14.5	15	150	163	-4	0	0.26	GI052	S01
	S20Q-SDZCR 11-93	20	35	22	18	18.5	180	198	-5	0	0.50	GI012	S08
	S25R-SDZCR 11-93	25	42	27	23	23	200	218	-3	0	0.83	GI012	S08
	S32S-SDZCR 11-93-A	32	53	35	30	30	250	268	-6	0	1.64	GI012	SD10
	S40T-SDZCR 11-93-A	40	65	43	38	38	300	322	-5	0	3.00	GI012	SD10
L	S16M-SDZCL 07-93	16	27	17	14.5	15	150	163	-4	0	0.27	GI052	S01
	S20Q-SDZCL 11-93	20	35	22	18	18.5	180	198	-5	0	0.60	GI012	S08
	S25R-SDZCL 11-93	25	42	27	23	23	200	218	-3	0	0.80	GI012	S08
	S32S-SDZCL 11-93-A	32	53	35	30	30	250	268	-6	0	1.60	GI012	SD10
	S40T-SDZCL 11-93-A	40	65	43	38	38	300	322	-5	0	3.00	GI012	SD10

GI012	DC.. 11T3..
GI052	DC.. 0702..

		Nm						
SD10	US 3510-T15P	3.0	M 3.5	10.6	SDN 110304	MS 3510	FLAG T15P	HXK 3.5
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–

C.-SDUC(RL) INT

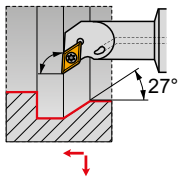
P M K N S H

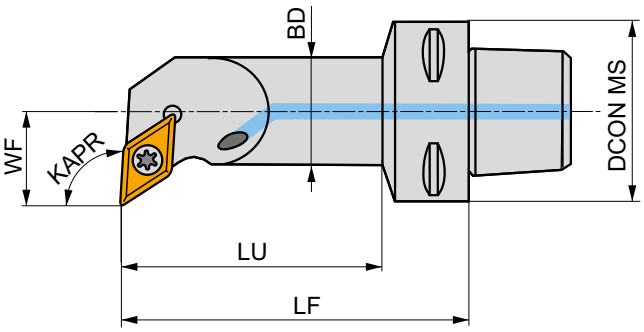
PRAMET

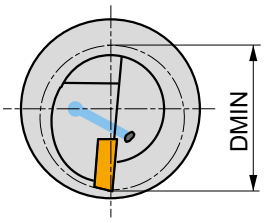
S

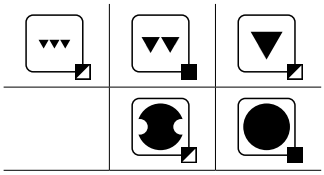
Internal PSC Quick Change Tool, Screw Lock, 93° Cutting Angle for DC.. Insert

Internal Right/Left hand tool, through coolant, with 93° cutting angle for screw type DC.. 07 or 11 inserts. Minimum internal turning diameter Ø20 mm. Suited for a wide range of internal turning applications. PSC shank (Polygon Shank Coupling) size C3 up to C5 with choice of lengths. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SDUCR-11065-07	50	20	11	65	48	16	93	-4.3	0	✓	0.20	GI052	SV11
	C4-SDUCR-11070-07	40	20	11	70	47	16	93	-4.3	0	✓	0.35	GI052	SV11
	C4-SDUCR-13080-11	40	25	13	80	57	20	93	-5.8	0	✓	0.41	GI012	SC09M
	C4-SDUCR-17090-11	40	32	17	90	68	25	93	-3.4	0	✓	0.49	GI012	SV16
	C5-SDUCR-13080-11	50	25	13	80	56	20	93	-5.8	0	✓	0.60	GI012	SC09M
	C5-SDUCR-17090-11	50	32	17	90	67	25	93	-3.4	0	✓	0.68	GI012	SV16
L	C4-SDUCL-11070-07	40	20	11	70	47	16	93	-4.3	0	✓	0.35	GI052	SV11
	C4-SDUCL-13080-11	40	25	13	80	57	20	93	-5.8	0	✓	0.41	GI012	SC09M
	C4-SDUCL-17090-11	40	32	17	90	68	25	93	-3.4	0	✓	0.49	GI012	SV16
	C5-SDUCL-13080-11	50	25	13	80	56	20	93	-5.8	0	✓	0.60	GI012	SC09M

GI012	DC.. 11T3..
GI052	DC.. 0702..

		Nm				
SC09M	US 2009-T15P	3.0	M 3.5	8.1	FLAG T15P/3,5	–
SV11	US 2003-T07P	0.8	M 2.5	6.5	–	FLAG T07P
SV16	US 2010-T15P	3.0	M 3.5	10.1	–	FLAG T15P/3,5

EC

06 / 08

CARBIDE INSERTS

ECGT

104

ECMT

105

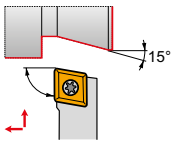
ECMW

106

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
ECMT 060204E-FM2	S08K-SEUCR 06

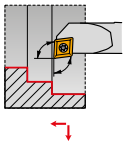
ISO TURNING – EXTERNAL

SEGC(RL) EXT

90°	EC..
	08
12×12 / 16×16	
107	104 – 106

ISO TURNING – INTERNAL

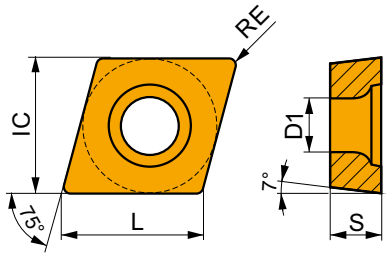
SEUC(RL) INT

93°	EC..
	06 08
11 / 32	
108	104 – 106

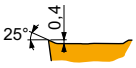
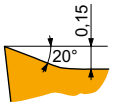
ECGT

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.50	2.38
0602-SF3	6.350	2.80	6.50	2.58
0803	7.940	3.40	8.20	3.18
0803-SF3	7.940	3.40	8.20	3.43



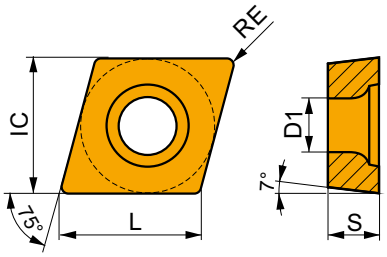
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			SF2 geometry with highly positive design for fine to finish machining, and continuous cuts.																	
ECGT 060202E-SF2	**H07**	0.2	–	–	–	◪ 105	0.05	1.0	–	–	–	◪ 525	0.06	1.0	■ 50	0.04	0.8	–	–	–
	T6310	0.2	◪ 185	0.05	1.0	■ 130	0.05	1.0	–	–	–	◪ 555	0.06	1.0	■ 55	0.04	0.8	–	–	–
ECGT 060204E-SF2	**H07**	0.4	–	–	–	◪ 85	0.09	1.0	–	–	–	◪ 430	0.12	1.0	■ 40	0.07	0.8	–	–	–
	T6310	0.4	◪ 160	0.10	1.0	■ 115	0.09	1.0	–	–	–	◪ 480	0.12	1.0	■ 45	0.07	0.8	–	–	–
ECGT 080302E-SF2	**H07**	0.2	–	–	–	◪ 105	0.05	1.0	–	–	–	◪ 525	0.06	1.0	■ 50	0.04	0.8	–	–	–
	T6310	0.2	◪ 185	0.05	1.0	■ 130	0.05	1.0	–	–	–	◪ 555	0.06	1.0	■ 55	0.04	0.8	–	–	–
ECGT 080304E-SF2	**H07**	0.4	–	–	–	◪ 85	0.09	1.0	–	–	–	◪ 430	0.12	1.0	■ 40	0.07	0.8	–	–	–
	T6310	0.4	◪ 160	0.10	1.0	■ 115	0.09	1.0	–	–	–	◪ 480	0.12	1.0	■ 45	0.07	0.8	–	–	–
																				
			SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																	
ECGT 060202E-SF3	**H07**	0.2	–	–	–	◪ 105	0.05	0.8	◪ 170	0.05	0.8	■ 540	0.06	0.8	■ 55	0.04	0.6	–	–	–
	T6310	0.2	◪ 185	0.05	0.8	■ 130	0.05	0.8	◪ 145	0.05	0.8	■ 555	0.06	0.8	■ 55	0.04	0.6	◪ 35	0.15	1.0
ECGT 080304E-SF3	**H07**	0.4	–	–	–	◪ 85	0.09	1.0	◪ 135	0.10	1.0	■ 430	0.12	1.0	■ 40	0.07	0.8	–	–	–
	T6310	0.4	◪ 160	0.10	1.0	■ 115	0.09	1.0	◪ 125	0.10	1.0	■ 480	0.12	1.0	■ 45	0.07	0.8	◪ 30	0.15	1.0

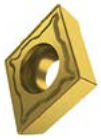
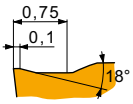
ECMT

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.50	2.38
0803	7.940	3.40	8.20	3.18



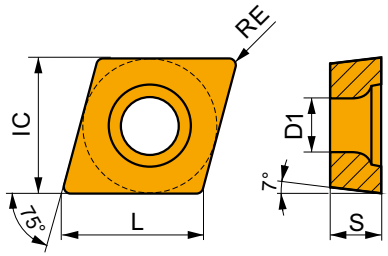
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			U S																	
			FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																	
ECMT 060204E-FM2	**T7325**	0.4	◪ 180	0.12	0.8	◪ 140	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 155	0.12	0.8	◪ 90	0.11	0.8	■ 145	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 205	0.12	0.8	◪ 110	0.11	0.8	◪ 170	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 290	0.12	0.8	–	–	–	◪ 275	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 255	0.12	0.8	◪ 150	0.11	0.8	◪ 240	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 220	0.12	0.8	◪ 130	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
ECMT 080304E-FM2	**T5315**	0.4	◪ 280	0.12	1.0	–	–	–	■ 265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.4	◪ 170	0.12	1.0	◪ 130	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 150	0.12	1.0	◪ 90	0.11	1.0	■ 140	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 205	0.12	1.0	◪ 110	0.11	1.0	◪ 170	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 280	0.12	1.0	–	–	–	◪ 265	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 255	0.12	1.0	◪ 150	0.11	1.0	◪ 240	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 215	0.12	1.0	◪ 125	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
ECMT 080308E-FM2	**T7325**	0.8	◪ 185	0.17	1.0	◪ 140	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 165	0.17	1.0	◪ 95	0.15	1.0	■ 155	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 210	0.17	1.0	◪ 115	0.15	1.0	◪ 175	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 290	0.17	1.0	–	–	–	◪ 275	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 260	0.17	1.0	◪ 155	0.15	1.0	◪ 245	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 225	0.17	1.0	◪ 135	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–

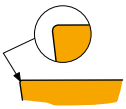
ECMW

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0602	6.350	2.80	6.50	2.38
0803	7.940	3.40	8.20	3.18



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
ECMW 060204	**H07**	0.4	–	–	–	–	–	–	■ 100	0.10	2.0	–	–	–	–	–	–	–	–	–
ECMW 080304	**H07**	0.4	–	–	–	–	–	–	■ 100	0.10	2.5	–	–	–	–	–	–	–	–	–
ECMW 080308	**H07**	0.8	–	–	–	–	–	–	■ 95	0.18	2.5	–	–	–	–	–	–	–	–	–

SEGC(RL) EXT

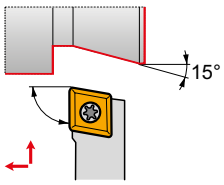
P M K N S H

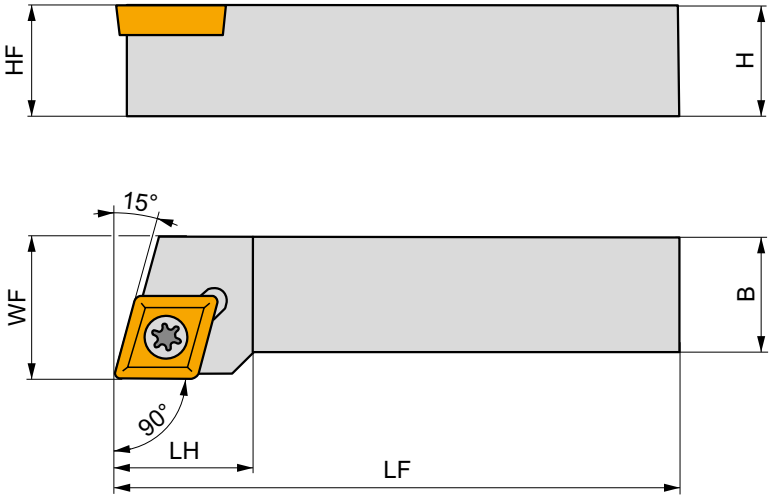
PRAMET

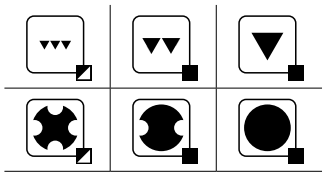
S

External Screw Lock Tool Holder with 90° Cutting Angle for EC.. Insert

External Right/Left hand tool holder with 90° cutting angle for screw type positive EC.. 08 inserts. Suited for external face and longitudinal turning with shoulder, taper, chamfer and face turning. Available with shank size 12x12 and 16x16 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SEGCR 1212 N 08	12	12	12	16	160	12	0	0	0.15	GI210	SE08
	SEGCR 1616 H 08	16	16	16	20	100	12	0	0	0.22	GI210	SE08
L	SEGCL 1212 N 08	12	12	12	16	160	12	0	0	0.22	GI210	SE08
	SEGCL 1616 H 08	16	16	16	20	100	12	0	0	2.14	GI210	SE08

GI210	EC.. 0803..

SE08	416.1-832	3.6	M 3	8.5	PT-8002

SEUC(RL) INT

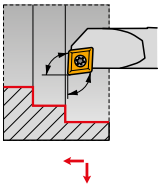
P M K N S H

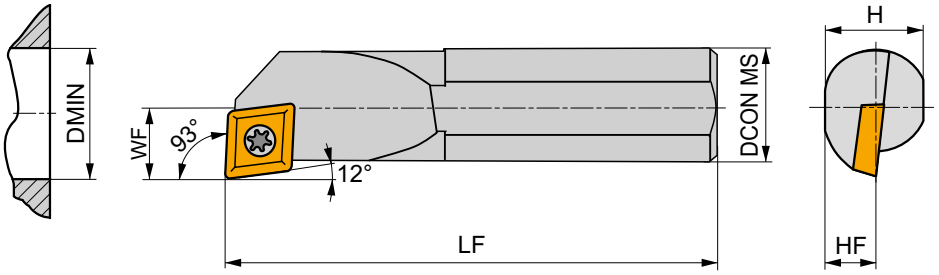
PRAMET

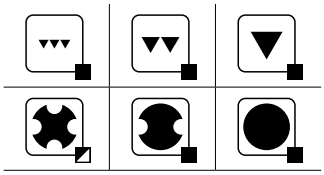
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for EC.. Insert

Internal Right/Left hand boring bar with 93° cutting angle for screw type EC.. 06 and 08 inserts. Minimum internal turning diameter Ø11 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø8 up to Ø25 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S08K-SEUCR 06	8	11	7	7	3.5	125	-5	0	0.06	GI213	SE23
	S10M-SEUCR 06	10	13	8	9	4.5	150	-5	0	0.10	GI213	SE23
	S12M-SEUCR 08	12	15	9	11	5.5	150	-5	0	0.14	GI210	SE24
	S16R-SEUCR 08	16	20	11	15	7.5	200	-5	0	0.32	GI210	SE24
	S20S-SEUCR 08	20	25	13	18	9	250	-5	0	0.58	GI210	SE24
	S25T-SEUCR 08	25	32	17	23	11.5	300	-4	0	1.06	GI210	SE24
L	S08K-SEUCL 06	8	11	7	7	3.5	125	-5	0	0.06	GI213	SE23
	S10M-SEUCL 06	10	13	8	9	4.5	150	-5	0	0.10	GI213	SE23
	S12M-SEUCL 08	12	15	9	11	5.5	150	-5	0	0.14	GI210	SE24
	S16R-SEUCL 08	16	20	11	15	7.5	200	-5	0	0.32	GI210	SE24
	S20S-SEUCL 08	20	25	13	18	9	250	-5	0	0.58	GI210	SE24

GI210	EC.. 0803..
GI213	EC.. 0602..

		Nm			
SE23	5513 020-03	0.8	M 2.5	6.5	PT-8001
SE24	416.1-832	3.6	M 3	8.5	PT-8003

EP 05

CARBIDE INSERTS

EPGX

110

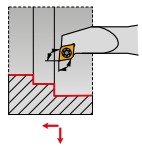
EPMT

110

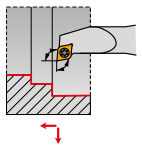
MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
EPGX **05**0202FR-JZ	S0608H-SELPR **05**

ISO TURNING – INTERNAL

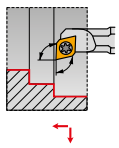
SELP(RL) INT

95°	EP..
	05
ØDmin 8 / 16	
111	110

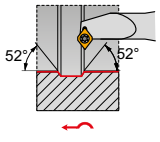
SELP(RL)-E INT

95°	EP..
	05
ØDmin 8 / 16	
112	110

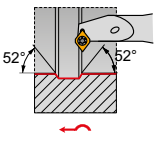
SEUP(RL) INT

93°	EP..
	05
ØDmin 8,3	
113	110

SEXP(RL) INT

52°30´	EP..
	05
ØDmin 9,5 / 16	
114	110

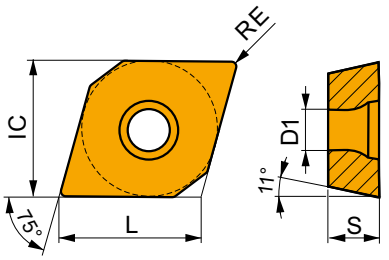
SEXP(RL)-E INT

52°30´	EP..
	05
ØDmin 9,5 / 16	
115	110

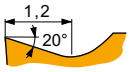
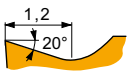
EPGX

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0502	5.560	2.50	5.70	2.38



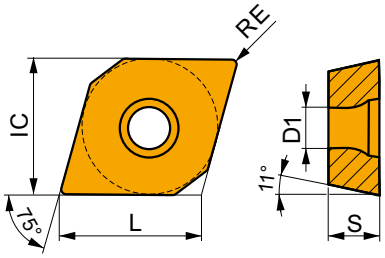
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 																				
			F																	
FR-JZ geometry with positive right-handed design for fine-finish machining and continuous cuts.																				
EPGX 050202FR-JZ	**TT010**	0.2	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
 																				
			F																	
FL-JZ geometry with positive left-handed design for fine-finish machining, and continuous cuts.																				
EPGX 050202FL-JZ	**TT010**	0.2	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–

EPMT

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0502	5.560	2.50	5.70	2.38



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 																				
			U		E															
NF2 geometry with positive design for fine-finish to semi-rough machining, and continuous cuts.																				
EPMT 050202E-NF2	**H07**	0.2	–	–	–	◪ 80	0.09	0.8	◪ 125	0.10	0.8	◪ 405	0.12	0.8	■ 40	0.07	0.6	–	–	–
	T7325	0.2	◪ 215	0.07	0.8	■ 165	0.06	0.8	–	–	–	–	–	–	■ 65	0.06	0.6	–	–	–
	T7335	0.2	◪ 220	0.07	0.8	■ 170	0.06	0.8	–	–	–	–	–	–	■ 70	0.06	0.6	–	–	–
	T9315	0.2	◪ 390	0.05	0.8	–	–	–	◪ 370	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	◪ 305	0.07	0.8	■ 180	0.06	0.8	◪ 285	0.07	0.8	–	–	–	◪ 65	0.06	0.6	–	–	–
	T9335	0.2	◪ 200	0.10	0.8	■ 120	0.09	0.8	–	–	–	–	–	–	◪ 45	0.07	0.6	–	–	–
	TT010	0.2	◪ 345	0.05	0.5	◪ 205	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–

SELP(RL) INT

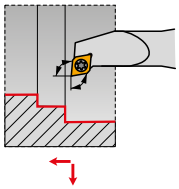
P M K N S H

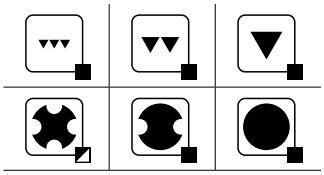
PRAMET

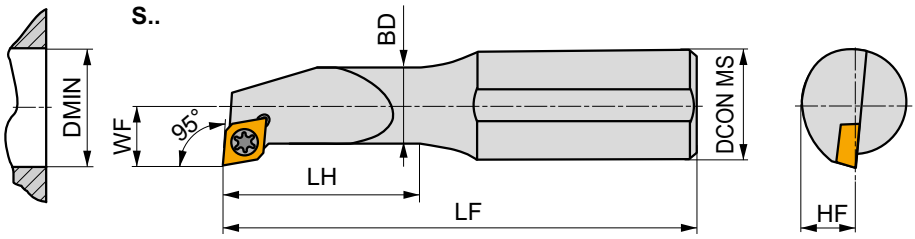
S

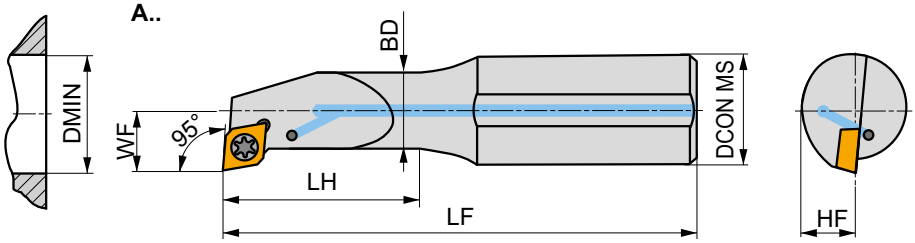
Internal Screw Lock Boring Bar with 95° Cutting Angle for EP.. Insert

Internal Right/Left hand boring bar, through coolant available, with 95° cutting angle for screw type EP.. 0502 inserts. Minimum internal turning diameter Ø8 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Ø8 up to Ø16 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	S0608H-SELPR 05	8	8	6	4.5	100	20	-10	0	–	0.04	GI212	SE21
	S0810J-SELPR 05	10	11	8	6	110	26	-5	0	–	0.06	GI212	SE22
	S1012K-SELPR 05	12	13	10	7	125	32	-5	0	–	0.11	GI212	SE22
	A1216M-SELPR 05	16	16	12	9	150	40	-2	0	✓	0.18	GI212	SE22
	S1216M-SELPR 05	16	16	12	9	150	40	-2	0	–	0.21	GI212	SE22
L	S0608H-SELPL 05	8	8	6	4.5	100	20	-10	0	–	0.04	GI212	SE21
	S0810J-SELPL 05	10	11	8	6	110	26	-5	0	–	0.06	GI212	SE22
	S1012K-SELPL 05	12	13	10	7	125	32	-5	0	–	0.11	GI212	SE22
	S1216M-SELPL 05	16	16	12	9	150	40	-2	0	–	0.21	GI212	SE22

GI212	EP.. 0502..

		Nm			
SE21	28992	0.8	M 2.2	4.2	MA2-8304
SE22	28588	0.8	M 2.2	5.6	MA2-8304

SELP(RL)-E INT

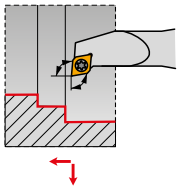
P M K N S H

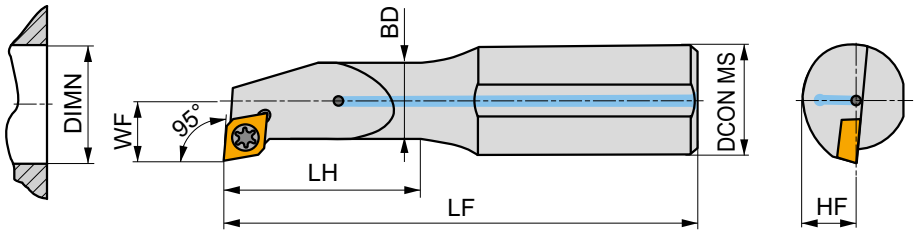
PRAMET

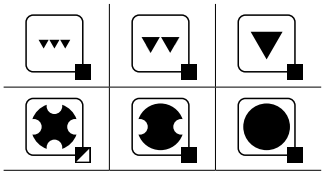
S

Internal Carbide Screw Lock Boring Bar with 95° Cutting Angle for EP.. Insert

Internal Right/Left hand carbide boring bar, through coolant, with 95° cutting angle for screw type EP.. 0502 inserts. Minimum internal turning diameter Ø8 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø8 up to Ø16 mm. For tool overhang >3xD.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	E0608H-SELPR 05	8	8	6	4.5	100	28	-10	0	✓	0.06	GI212	SE22
	E0810J-SELPR 05	10	11	8	6	110	36	-5	0	✓	0.10	GI212	SE22
	E1012K-SELPR 05	12	13	10	7	125	44	-5	0	✓	0.18	GI212	SE22
L	E0608H-SELPL 05	8	8	6	4.5	100	28	-10	0	✓	0.06	GI212	SE22
	E0810J-SELPL 05	10	11	8	6	110	36	-5	0	✓	0.10	GI212	SE22
	E1216M-SELPL 05	16	16	12	9	150	55	-2	0	✓	0.33	GI212	SE22

GI212	EP.. 0502..

		Nm			
SE22	28588	0.8	M 2.2	5.6	MA2-8304

SEUP(RL) INT

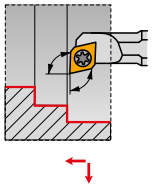
P M K N S H

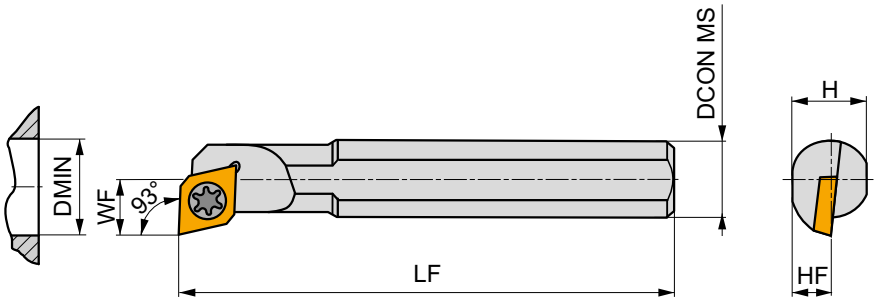
PRAMET

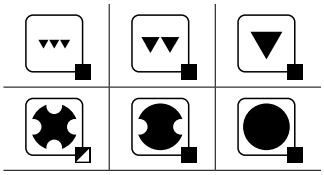
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for EP.. Insert

Internal Right/Left hand boring bar with 93° cutting angle for screw type EP.. 0502 inserts. Minimum internal turning diameter Ø8.3 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø6 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S06H-SEUPR 05	6	8.3	5	5.4	2.7	100	-7	0	0.03	GI212	SE21
L	S06H-SEUPL 05	6	8.3	5	5.4	2.7	100	-7	0	0.03	GI212	SE21

GI212	EP.. 0502..

SE21	28992	0.8 Nm	M 2.2	4.2	MA2-8304

SEXP(RL) INT

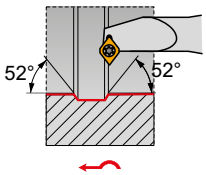
P M K N S H

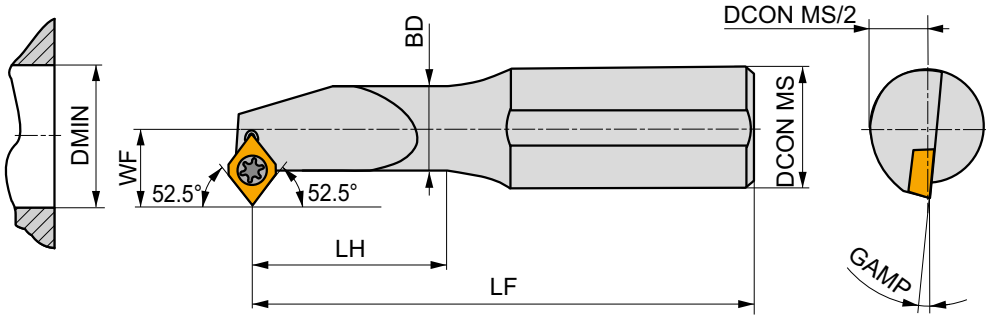
PRAMET

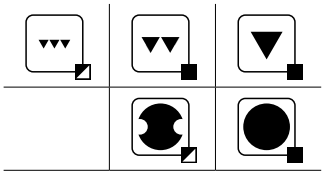
S

Internal Screw Lock Boring Bar with 52.5° Cutting Angle for EP.. Insert

Internal Right/Left hand boring bar, 52.5° cutting angle for screw type EP.. 0502 inserts. Minimum internal turning diameter Ø9.5mm. For internal back chamfer, taper, multi-directional, chamfer and longitudinal turning without shoulder. Available with shank size Ø8 up to Ø16mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	GAMP [°]	kg		
R	S0608H-SEXPR 05	8	9.5	6	5.5	100	20	-7	0.04	GI212	SE21
	S0810J-SEXPR 05	10	11	8	6	110	26	-5	0.06	GI212	SE22
	S1012K-SEXPR 05	12	13	10	7	125	32	-5	0.11	GI212	SE22
	S1216M-SEXPR 05	16	16	12	9	150	40	-2	0.21	GI212	SE22
L	S0608H-SEXPL 05	8	9.5	6	5.5	100	20	-7	0.04	GI212	SE21
	S0810J-SEXPL 05	10	11	8	6	110	26	-5	0.07	GI212	SE22
	S1012K-SEXPL 05	12	13	10	7	125	32	-5	0.11	GI212	SE22
	S1216M-SEXPL 05	16	16	12	9	150	40	-2	0.21	GI212	SE22

GI212	EP.. 0502..

		Nm			
SE21	28992	0.8	M 2.2	4.2	MA2-8304
SE22	28588	0.8	M 2.2	5.6	MA2-8304

SEXP(RL)-E INT

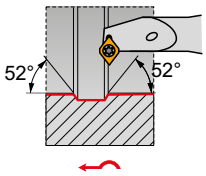
P M K N S H

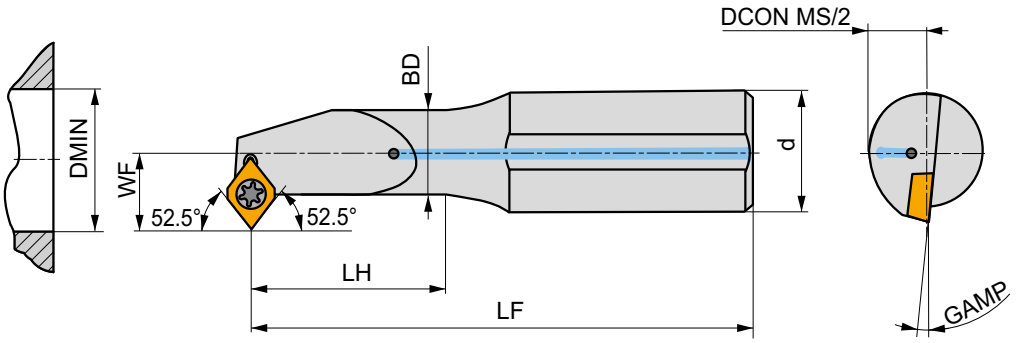
PRAMET

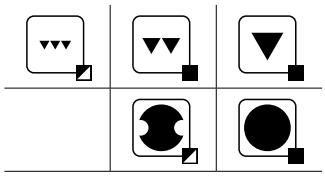
S

Internal Carbide Screw Lock Boring Bar, 52.5° Cutting Angle for EP.. Insert

Internal Right/Left hand carbide boring bar, through coolant, 52.5° cutting angle for screw type EP.. 0502 inserts. Minimum internal turning diameter Ø9.5 mm. For internal back chamfer, taper, multi-directional, chamfer and longitudinal turning without shoulder. Ø8 to Ø16 mm shanks available. For overhang > 3xD.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	GAMP [°]		kg		
R	E0608H-SEXPR 05	8	9.5	6	5.5	100	28	-7	✓	0.07	GI212	SE21
	E0810J-SEXPR 05	10	11	8	6	110	36	-5	✓	0.11	GI212	SE22
	E1012K-SEXPR 05	12	13	10	7	125	44	-5	✓	0.16	GI212	SE22
	E1216M-SEXPR 05	16	16	12	9	150	55	-2	✓	0.32	GI212	SE22
L	E0608H-SEXPL 05	8	9.5	6	5.5	100	28	-7	✓	0.06	GI212	SE21

GI212	EP.. 0502..

		Nm			
SE21	28992	0.8	M 2.2	4.2	MA2-8304
SE22	28588	0.8	M 2.2	5.6	MA2-8304

RC

06/ 08/ 12/ 16/ 20/ 25/ 32

CARBIDE INSERTS

RCGT

118

RCMT

118

RCMW

120

RCMX

121

CER INSERTS

RCGX CER

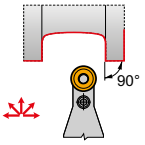
123

MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
RCMT 1204MOE-RM3	SRDCN 3225 P 12-M

ISO TURNING – EXTERNAL

PRDCN EXT



40×40
50×50

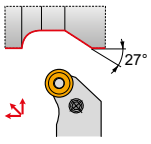
RC..

20
25
32

124

118 – 123

PRSC(RL) EXT



40×40

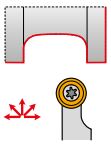
RC..

16
25

125

118 – 123

SRDC(RL) EXT



20×20
32×25

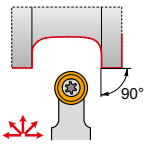
RC..

08

126

118 – 123

SRDCN EXT



12×12
32×25

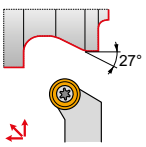
RC..

06
08
10
12
16

127

118 – 123

SRSC(RL) EXT



12×12
32×25

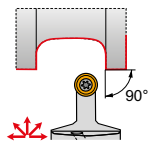
RC..

06
08
10
12
16

128

118 – 123

C.-SRDCN EXT



C4
C5

RC..

10
12

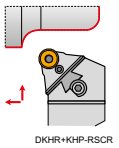
130

118 – 123

RC 06/ 08/ 12/ 16/ 20/ 25/ 32

ISO TURNING – HEAVY ROUGHING – EXTERNAL

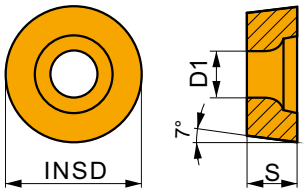
KHP-RSCR/L + DKH(RL)

	RC..
 DKHR+KHP-RSCR	20 25 32
■ 40×50 60×80	
131, 132	118 – 123

RCGT

PRAMET

	INSD [mm]	D1 [mm]	S [mm]
0803	8.0	3.40	3.18
1003	10.0	4.40	3.18



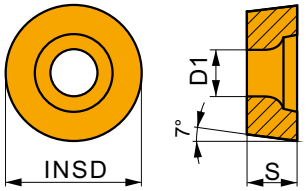
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																	
RCGT 0803MOF-AL	HF7	–	–	–	–	–	–	–	–	–	–	285	1.20	1.0	–	–	–	–	–	–
	T0315	–	–	–	–	–	–	–	–	–	–	420	1.20	1.0	–	–	–	–	–	–
RCGT 1003MOF-AL	HF7	–	–	–	–	–	–	–	–	–	–	255	1.50	1.0	–	–	–	–	–	–
	T0315	–	–	–	–	–	–	–	–	–	–	390	1.50	1.0	–	–	–	–	–	–

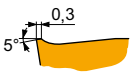
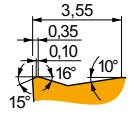
RCMT

PRAMET

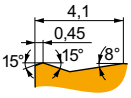
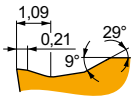
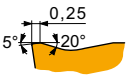
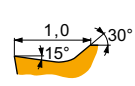
	INSD [mm]	D1 [mm]	S [mm]
0602	6.0	2.80	2.38
0803	8.0	3.40	3.18
10T3	10.0	4.40	3.97
1204	12.0	4.40	4.76
1606	16.0	5.50	6.35
2006	20.0	6.50	6.35
2507	25.0	8.60	7.94



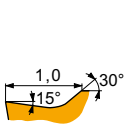
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			Geometry 37 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMT 1606M0S-37	T9315	–	165	0.60	3.0	–	–	–	155	0.60	3.0	–	–	–	–	–	–	–	–	–
	T9325	–	145	0.60	3.0	–	–	–	135	0.60	3.0	–	–	–	–	–	–	–	–	–
																				
			Geometry 371 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMT 2006M0S-371	T9315	–	145	0.80	3.0	–	–	–	135	0.80	3.0	–	–	–	–	–	–	–	–	–
	T9325	–	125	0.80	3.0	–	–	–	115	0.80	3.0	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			 Geometry 372 for semi-rough to heavy-rough machining, continuous to interrupted cuts.																	
RCMT 2507MOS-372	T9325	–	■ 90	0.80	3.0	–	–	–	◪ 85	0.80	3.0	–	–	–	–	–	–	–	–	–
			 FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
RCMT 0602MOE-FM	T7325	–	◪ 215	0.45	1.2	■ 165	0.41	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 190	0.45	1.2	■ 110	0.41	1.2	◪ 180	0.45	1.2	◪ 570	0.54	1.2	–	–	–	–	–	–
	T8430	–	■ 200	0.45	1.2	■ 110	0.41	1.2	◪ 165	0.45	1.2	◪ 555	0.54	1.2	–	–	–	–	–	–
	T9315	–	■ 260	0.45	1.2	–	–	–	◪ 245	0.45	1.2	–	–	–	–	–	–	–	–	–
	T9325	–	■ 235	0.45	1.2	■ 140	0.41	1.2	◪ 220	0.45	1.2	–	–	–	–	–	–	–	–	–
RCMT 0803MOE-FM	T7325	–	◪ 190	0.60	1.6	■ 145	0.54	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 170	0.60	1.6	■ 100	0.54	1.6	◪ 160	0.60	1.6	◪ 510	0.72	1.6	–	–	–	–	–	–
	T8430	–	■ 175	0.60	1.6	■ 95	0.54	1.6	◪ 140	0.60	1.6	◪ 480	0.72	1.6	–	–	–	–	–	–
	T9315	–	■ 225	0.60	1.6	–	–	–	◪ 210	0.60	1.6	–	–	–	–	–	–	–	–	–
	T9325	–	■ 200	0.60	1.6	■ 120	0.54	1.6	◪ 190	0.60	1.6	–	–	–	–	–	–	–	–	–
RCMT 10T3MOE-FM	T7325	–	◪ 185	0.65	1.7	■ 140	0.59	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 165	0.65	1.7	■ 95	0.59	1.7	◪ 155	0.65	1.7	◪ 495	0.78	1.7	–	–	–	–	–	–
	T8430	–	■ 170	0.65	1.7	■ 90	0.59	1.7	◪ 135	0.65	1.7	◪ 465	0.78	1.7	–	–	–	–	–	–
	T9315	–	■ 220	0.65	1.7	–	–	–	◪ 205	0.65	1.7	–	–	–	–	–	–	–	–	–
	T9325	–	■ 195	0.65	1.7	■ 115	0.59	1.7	◪ 185	0.65	1.7	–	–	–	–	–	–	–	–	–
RCMT 1204MOE-FM	T7325	–	◪ 175	0.70	1.8	■ 135	0.63	1.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 160	0.70	1.8	■ 95	0.63	1.8	◪ 150	0.70	1.8	◪ 480	0.84	1.8	–	–	–	–	–	–
	T8430	–	■ 155	0.70	1.8	■ 85	0.63	1.8	◪ 130	0.70	1.8	◪ 435	0.84	1.8	–	–	–	–	–	–
	T9315	–	■ 205	0.70	1.8	–	–	–	◪ 190	0.70	1.8	–	–	–	–	–	–	–	–	–
	T9325	–	■ 190	0.70	1.8	■ 110	0.63	1.8	◪ 180	0.70	1.8	–	–	–	–	–	–	–	–	–
			 RM3 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
RCMT 0803MOE-RM3	T7325	–	◪ 185	0.50	1.3	◪ 140	0.45	1.3	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	–	■ 225	0.50	1.3	–	–	–	◪ 210	0.50	1.3	–	–	–	–	–	–	◪ 45	0.15	1.0
RCMT 1204MOE-RM3	H07	–	–	–	–	◪ 65	0.54	1.8	■ 105	0.60	1.8	–	–	–	–	–	–	–	–	–
	T7325	–	◪ 165	0.60	1.8	◪ 125	0.54	1.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 150	0.60	1.8	◪ 90	0.54	1.8	■ 140	0.60	1.8	–	–	–	–	–	–	◪ 30	0.15	1.0
	T8430	–	■ 150	0.60	1.8	◪ 80	0.54	1.8	◪ 125	0.60	1.8	–	–	–	–	–	–	◪ 25	0.15	1.0
	T9315	–	■ 205	0.60	1.8	–	–	–	◪ 190	0.60	1.8	–	–	–	–	–	–	◪ 40	0.15	1.0
RCMT 1606MOE-RM3	T7325	–	◪ 160	0.65	2.0	◪ 120	0.59	2.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 145	0.65	2.0	◪ 85	0.59	2.0	■ 135	0.65	2.0	–	–	–	–	–	–	◪ 25	0.15	1.0
	T8430	–	■ 145	0.65	2.0	◪ 80	0.59	2.0	◪ 120	0.65	2.0	–	–	–	–	–	–	◪ 25	0.15	1.0
	T9315	–	■ 195	0.65	2.0	–	–	–	◪ 185	0.65	2.0	–	–	–	–	–	–	◪ 35	0.15	1.0
RCMT 2507MOE-RM3	H07	–	–	–	–	◪ 60	0.54	3.0	■ 95	0.60	3.0	–	–	–	–	–	–	–	–	–
			 UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																	
RCMT 0602MOE-UR	T6310	–	■ 170	0.40	1.2	◪ 120	0.36	1.2	■ 135	0.40	1.2	–	–	–	–	–	–	–	–	–
	T7325	–	◪ 190	0.40	1.2	◪ 145	0.36	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	■ 170	0.40	1.2	◪ 100	0.36	1.2	■ 160	0.40	1.2	–	–	–	–	–	–	–	–	–
	T8430	–	■ 180	0.40	1.2	◪ 95	0.36	1.2	◪ 145	0.40	1.2	–	–	–	–	–	–	–	–	–
	T9315	–	■ 240	0.40	1.2	–	–	–	◪ 225	0.40	1.2	–	–	–	–	–	–	–	–	–
	T9325	–	■ 215	0.40	1.2	◪ 125	0.36	1.2	◪ 200	0.40	1.2	–	–	–	–	–	–	–	–	–

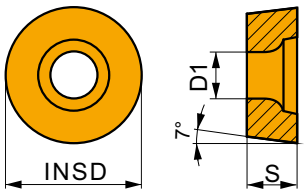
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			HFC E																	
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																				
RCMT 0803M0E-UR	**T6310**	–	160	0.45	1.6	115	0.41	1.6	125	0.45	1.6	–	–	–	–	–	–	–	–	–
	T7325	–	180	0.45	1.6	140	0.41	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	160	0.45	1.6	95	0.41	1.6	150	0.45	1.6	–	–	–	–	–	–	–	–	–
	T8430	–	170	0.45	1.6	90	0.41	1.6	135	0.45	1.6	–	–	–	–	–	–	–	–	–
	T9315	–	220	0.45	1.6	–	–	–	205	0.45	1.6	–	–	–	–	–	–	–	–	–
	T9325	–	200	0.45	1.6	120	0.41	1.6	190	0.45	1.6	–	–	–	–	–	–	–	–	–
RCMT 10T3M0E-UR	**T6310**	–	160	0.50	1.4	115	0.45	1.4	125	0.50	1.4	–	–	–	–	–	–	–	–	–
	T7325	–	175	0.50	1.4	135	0.45	1.4	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	160	0.50	1.4	95	0.45	1.4	150	0.50	1.4	–	–	–	–	–	–	–	–	–
	T8430	–	165	0.50	1.4	90	0.45	1.4	135	0.50	1.4	–	–	–	–	–	–	–	–	–
	T9315	–	215	0.50	1.4	–	–	–	200	0.50	1.4	–	–	–	–	–	–	–	–	–
	T9325	–	190	0.50	1.4	110	0.45	1.4	180	0.50	1.4	–	–	–	–	–	–	–	–	–
RCMT 1204M0E-UR	**T6310**	–	150	0.55	1.8	105	0.50	1.8	120	0.55	1.8	–	–	–	–	–	–	–	–	–
	T7325	–	165	0.55	1.8	125	0.50	1.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	–	150	0.55	1.8	90	0.50	1.8	140	0.55	1.8	–	–	–	–	–	–	–	–	–
	T8430	–	145	0.55	1.8	80	0.50	1.8	120	0.55	1.8	–	–	–	–	–	–	–	–	–
	T9315	–	200	0.55	1.8	–	–	–	190	0.55	1.8	–	–	–	–	–	–	–	–	–
	T9325	–	180	0.55	1.8	105	0.50	1.8	170	0.55	1.8	–	–	–	–	–	–	–	–	–

RCMW

PRAMET

	INSD	D1	S
	[mm]	[mm]	[mm]
0602	6.0	2.80	2.38
0803	8.0	3.40	3.18
10T3	10.0	4.40	3.97
1204	12.0	4.40	4.76



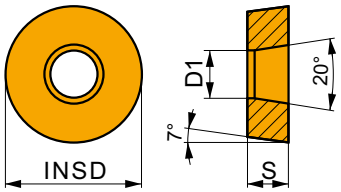
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			HFC E																	
For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
RCMW 0602M0	**T5305**	–	–	–	–	–	–	–	280	0.25	0.6	–	–	–	–	–	–	55	0.15	1.0
	T5315	–	–	–	–	–	–	–	250	0.25	0.6	–	–	–	–	–	–	50	0.15	1.0
RCMW 0803M0	**T5305**	–	–	–	–	–	–	–	255	0.30	0.8	–	–	–	–	–	–	50	0.15	1.0
	T5315	–	–	–	–	–	–	–	230	0.30	0.8	–	–	–	–	–	–	45	0.15	1.0
RCMW 10T3M0	**T5305**	–	–	–	–	–	–	–	225	0.40	1.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	–	–	–	–	–	–	–	200	0.40	1.0	–	–	–	–	–	–	40	0.15	1.0
RCMW 1204M0	**T5305**	–	–	–	–	–	–	–	205	0.45	1.2	–	–	–	–	–	–	40	0.15	1.0
	T5315	–	–	–	–	–	–	–	190	0.45	1.2	–	–	–	–	–	–	40	0.15	1.0

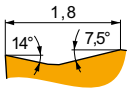
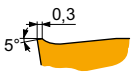
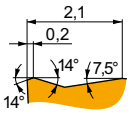
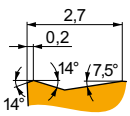
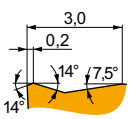
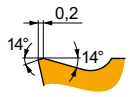
RCMX

PRAMET

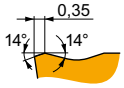
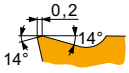
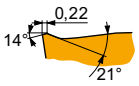
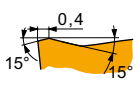
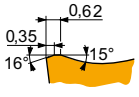
	INSD [mm]	D1 [mm]	S [mm]
1003	10.0	3.60	3.18
1204	12.0	4.20	4.76
1606	16.0	5.20	6.35
2006	20.0	6.50	6.35
2507	25.0	7.20	7.94
3209	32.0	9.50	9.53



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HFC E Geometry 31 for finish to semi-rough machining, and continuous to interrupted cuts.																	
RCMX 1003M0S-31	**T9325**	–	165	0.50	2.0	95	0.45	2.0	155	0.50	2.0	–	–	–	–	–	–	–	–	–
	T9335	–	140	0.50	2.0	80	0.45	2.0	–	–	–	–	–	–	–	–	–	–	–	–
			HFC S Geometry 37 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMX 1606M0S-37	**T9315**	–	165	0.60	3.0	–	–	–	155	0.60	3.0	–	–	–	–	–	–	–	–	–
	T9325	–	145	0.60	3.0	–	–	–	135	0.60	3.0	–	–	–	–	–	–	–	–	–
			HFC S Geometry 321 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMX 1204M0S-321	**T9315**	–	130	1.00	3.0	–	–	–	120	1.00	3.0	–	–	–	–	–	–	–	–	–
	T9325	–	120	1.00	3.0	–	–	–	110	1.00	3.0	–	–	–	–	–	–	–	–	–
	T9335	–	105	1.00	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			HFC S Geometry 331 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMX 1606M0S-331	**T9315**	–	120	1.20	3.5	–	–	–	110	1.20	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	105	1.20	3.5	–	–	–	95	1.20	3.5	–	–	–	–	–	–	–	–	–
	T9335	–	110	0.80	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			HFC S Geometry 341 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMX 2006M0S-341	**6640**	–	90	1.00	3.5	–	–	–	85	1.00	3.5	–	–	–	–	–	–	–	–	–
			HFC S Geometry 351 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
RCMX 2507M0S-351	**6640**	–	60	1.00	3.5	–	–	–	55	1.00	3.5	–	–	–	–	–	–	–	–	–

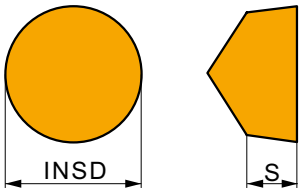
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
			HFC S																	
Geometry 361 for rough to heavy-rough machining and continuous to heavy interrupted cuts.																				
RCMX 3209M0S-361	**6640**	–	■ 50	1.40	4.5	–	–	–	■ 45	1.40	4.5	–	–	–	–	–	–	–	–	–
			HFC S																	
RF1 geometry for finish to semi-rough machining, and continuous to interrupted cuts.																				
RCMX 2006M0-RF1	**T5305**	–	◪ 105	0.80	3.5	–	–	–	◪ 95	0.80	3.5	–	–	–	–	–	–	–	–	–
	T9310	–	■ 105	0.80	3.5	–	–	–	◪ 95	0.80	3.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 100	0.80	3.5	–	–	–	◪ 95	0.80	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 90	0.80	3.5	–	–	–	◪ 85	0.80	3.5	–	–	–	–	–	–	–	–	–
	T9335	–	■ 110	0.80	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
RCMX 2507M0-RF1	**T8345**	–	■ 45	1.00	3.5	–	–	–	◪ 40	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9310	–	■ 95	1.00	3.5	–	–	–	◪ 90	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 90	1.00	3.5	–	–	–	◪ 85	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 80	1.00	3.5	–	–	–	◪ 75	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9335	–	■ 65	1.00	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			HFC S																	
RM1 geometry for finish to rough machining, and continuous to interrupted cuts.																				
RCMX 2006M0-RM1	**T9310**	–	■ 95	1.00	3.5	–	–	–	◪ 90	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 90	1.00	3.5	–	–	–	◪ 85	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 80	1.00	3.5	–	–	–	◪ 75	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9335	–	■ 125	0.60	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
RCMX 2507M0-RM1	**T9310**	–	■ 95	1.00	3.5	–	–	–	◪ 90	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 90	1.00	3.5	–	–	–	◪ 85	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 80	1.00	3.5	–	–	–	◪ 75	1.00	3.5	–	–	–	–	–	–	–	–	–
	T9335	–	■ 80	0.60	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			HFC S																	
RM2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
RCMX 2507M0-RM2	**T9310**	–	■ 90	1.10	3.5	–	–	–	◪ 85	1.10	3.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 85	1.10	3.5	–	–	–	◪ 80	1.10	3.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 75	1.10	3.5	–	–	–	◪ 70	1.10	3.5	–	–	–	–	–	–	–	–	–
RCMX 3209M0-RM2	**T5315**	–	◪ 95	1.00	4.5	–	–	–	◪ 90	1.00	4.5	–	–	–	–	–	–	–	–	–
	T9310	–	■ 90	1.00	4.5	–	–	–	◪ 85	1.00	4.5	–	–	–	–	–	–	–	–	–
	T9315	–	■ 85	1.00	4.5	–	–	–	◪ 80	1.00	4.5	–	–	–	–	–	–	–	–	–
	T9325	–	■ 75	1.00	4.5	–	–	–	◪ 70	1.00	4.5	–	–	–	–	–	–	–	–	–
	T9335	–	■ 55	1.40	4.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			HFC P																	
RR2 geometry for heavy rough machining, and continuous to interrupted cuts.																				
RCMX 3209M0-RR2	**T9315**	–	■ 60	1.40	4.5	–	–	–	◪ 55	1.40	4.5	–	–	–	–	–	–	◪ 10	0.15	1.0
	T9316	–	■ 60	1.40	4.5	–	–	–	◪ 55	1.40	4.5	–	–	–	–	–	–	–	–	–

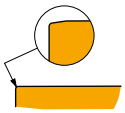
RCGX CER

PRAMET

	INSD [mm]	S [mm]
0606	6.350	6.35
0907	9.525	7.94
1207	12.700	7.94



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC		K															
			For machining with high speeds and continuous cuts.																	
RCGX 060600 K15015	**TC100**	–	–	–	–	–	–	–	365	0.30	0.8	–	–	–	–	–	–	–	–	–
RCGX 090700 K15015	**TC100**	–	–	–	–	–	–	–	410	0.20	1.2	–	–	–	–	–	–	–	–	–
RCGX 120700 K15015	**TC100**	–	–	–	–	–	–	–	405	0.20	1.5	–	–	–	–	–	–	–	–	–

PRDCN EXT

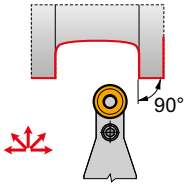
P M K N S H

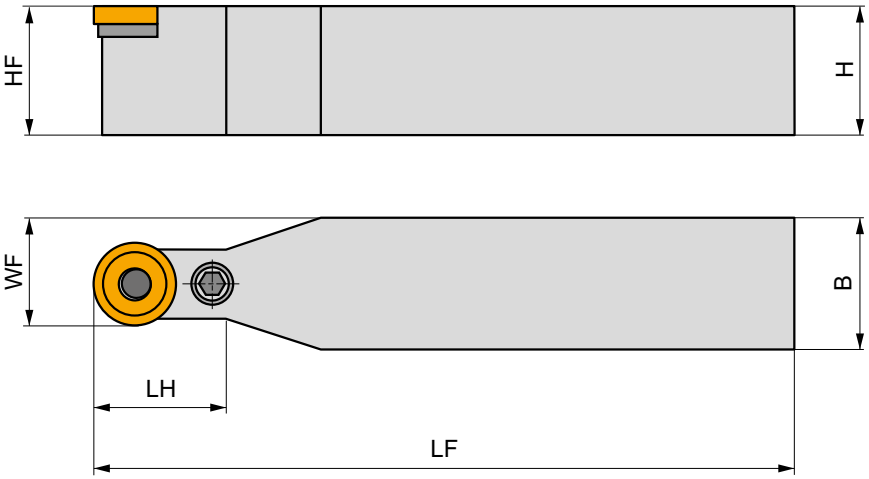
PRAMET

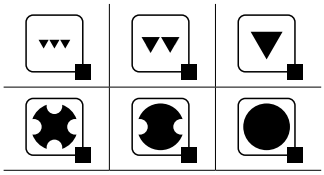
P

External Lever Lock Tool Holder for Round RC.. Insert

External neutral lever lock tool holder for positive RC.. 16 up to 32 inserts. Suited for external face and longitudinal turning without shoulder, copy turning up to 90°, taper and chamfer turning. Available with shank size 32x25 up to 50x50 mm. Body treated for longer tool life.







	Product	H	B	HF	WF	LF	LH	LAMS	GAMO			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[°]	kg		
N	**PRDCN 3225 P 16**	32	25	32	20.5	170	32	0	0	0.80	GI090	PRP70
	PRDCN 3232 P 20	32	32	32	26	170	32	0	0	1.30	GI069	PRP90
	PRDCN 4040 S 20	40	40	40	30	250	40	0	0	3.10	GI069	PRP90
	PRDCN 4040 S 25	40	40	40	32.5	250	40	0	0	3.20	GI122	PRP80
	PRDCN 5050 S 32	50	50	50	41	250	50	0	0	3.50	GI096	PRP32
	PRDCN 5050 T 32	50	50	50	41	300	50	0	0	5.12	GI096	PRP32

GI069	RCMX 2006M0
GI090	RCMX 1606M0
GI096	RCMX 3209M0
GI122	RCMX 2507M0

				Nm					
PRP32	RCU 320600	PU 10	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5
PRP70	RCU 160300	PU 07	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PRP80	RCU 250600	PU 08	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PRP90	RCU 200400	PU 09	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4

PRSC(RL) EXT

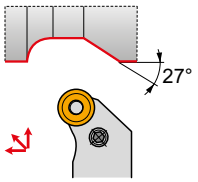
P M K N S H

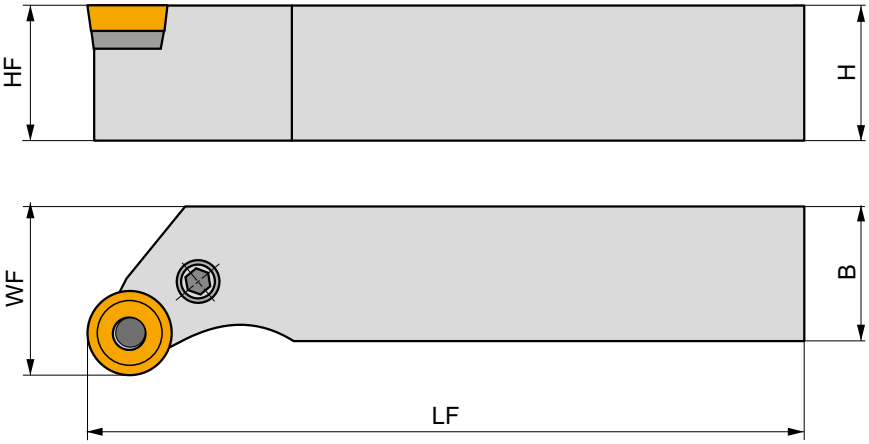
PRAMET

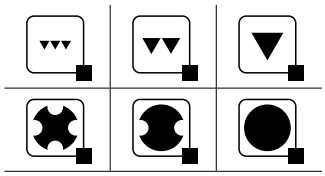
P

External Lever Lock Tool Holder for Round RC.. Insert

External Right/Left hand lever lock tool holder for positive RC.. 16 up to 25 inserts. Suited for external face and longitudinal turning without shoulder, copy turning up to 27°, taper and chamfer turning, including face copy turning. Available with shank size 32x25 up to 40x40 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	PRSCR 3225 P 16	32	25	32	32	170	0	0	0.90	GI090	PRP70
	PRSCR 4040 R 16	40	40	40	50	200	0	0	2.38	GI090	PRP70
	PRSCR 3232 P 20	32	32	32	40	170	0	0	1.40	GI069	PRP90
	PRSCR 4040 S 25	40	40	40	50	250	0	0	3.40	GI122	PRP80
L	PRSCL 3225 P 16	32	25	32	32	170	0	0	0.90	GI090	PRP70
	PRSCL 4040 R 16	40	40	40	50	200	0	0	2.38	GI090	PRP70
	PRSCL 3232 P 20	32	32	32	40	170	0	0	1.32	GI069	PRP90
	PRSCL 4040 S 25	40	40	40	50	250	0	0	3.40	GI122	PRP80

GI069	RCMX 2006M0
GI090	RCMX 1606M0
GI122	RCMX 2507M0

				Nm					
PRP70	RCU 160300	PU 07	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PRP80	RCU 250600	PU 08	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PRP90	RCU 200400	PU 09	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4

SRDC(RL) EXT

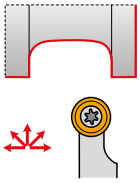
P M K N S H

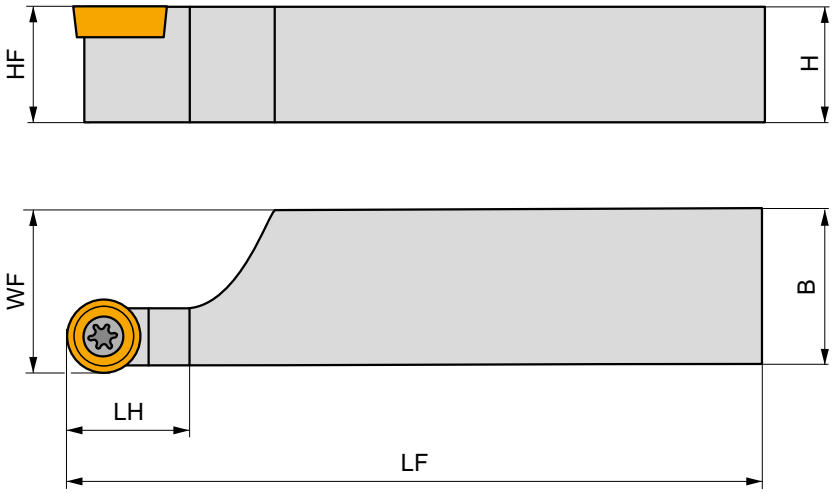
PRAMET

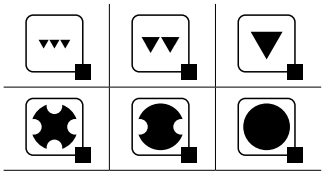
S

External Screw Lock Tool Holder for Round RC.. Insert

External Right/Left hand tool holder for screw type positive RC.. 08 inserts. Suited for external face and longitudinal turning without shoulder, taper and chamfer turning. Available with shank size 20x20 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SRDCR 2020 K 08-A	20	20	20	20.5	125	20	0	0	0.36	GI051	SR21
	SRDCR 2525 M 08-A	25	25	25	25.5	150	20	0	0	0.66	GI051	SR21
	SRDCR 3225 P 08-A	32	25	32	25.5	170	20	0	0	0.95	GI051	SR21
L	SRDCL 2020 K 08-A	20	20	20	20.5	125	20	0	0	0.37	GI051	SR21
	SRDCL 2525 M 08-A	25	25	25	25.5	150	20	0	0	0.66	GI051	SR21
	SRDCL 3225 P 08-A	32	25	32	25.5	170	20	0	0	0.96	GI051	SR21

GI051	RC.. 0803M0

		Nm			
SR21	5513 020-04	1.5	M 3	7.2	PT-8002

SRDCN EXT

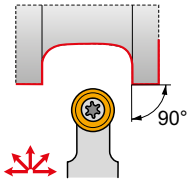
P M K N S H

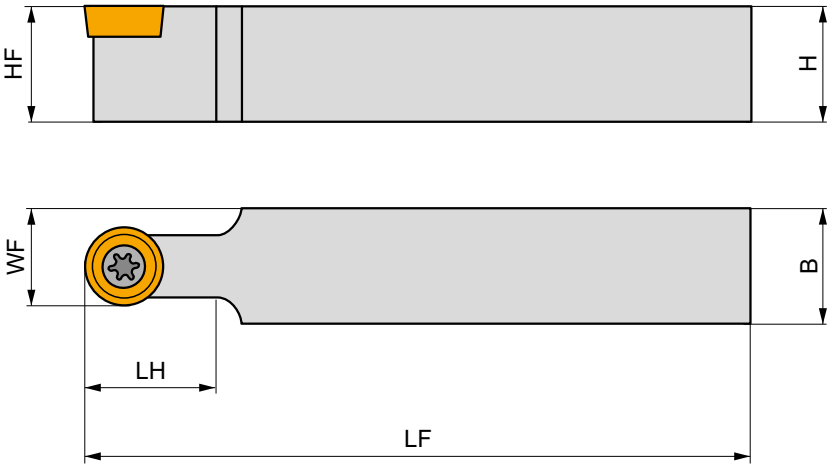
PRAMET

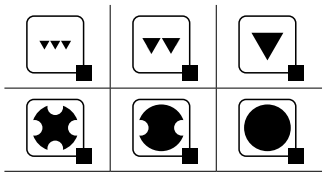
S

External Screw Lock Tool Holder for Round RC.. Insert

External neutral tool holder for screw type positive RC.. 06 up to 16 inserts. Suited for external face and longitudinal turning without shoulder, copy, taper and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
N	**SRDCN 1212 F 06**	12	12	12	9	80	12	0	0	0.10	GI054	S01
	SRDCN 1616 H 06	16	16	16	11	100	12	0	0	0.20	GI054	S01
	SRDCN 2020 K 08	20	20	20	14	125	20	0	0	0.38	GI051	S03
	SRDCN 2020 K 1003-M-A	20	20	20	15	125	25	0	0	0.40	GI064	SR10
	SRDCN 2020 K 10-M-A	20	20	20	15	125	25	0	0	0.40	GI013	SR10
	SRDCN 2525 M 10-M-A	25	25	25	17.5	150	25	0	0	0.68	GI013	SR10
	SRDCN 2525 M 12-M-A	25	25	25	18.5	150	30	0	0	0.68	GI014	SR12
	SRDCN 3225 P 10-M	32	25	32	17.5	170	25	0	0	0.90	GI013	SR10
	SRDCN 3225 P 12-M	32	25	32	18.5	170	30	0	0	0.90	GI014	SR12
	SRDCN 3225 P 16-M	32	25	32	20.5	170	32	0	0	1.00	GI161	SR16

GI013	RC.. 10T3M0
GI014	RC.. 1204M0
GI051	RC.. 0803M0
GI054	RC.. 0602M0
GI064	RC.. 1003M0
GI161	RC.. 1606M0

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S03	US 3007-T09P	2.0	M 3	7.3	–	–	FLAG T09P	–
SR10	US 3510-T15P	3.0	M 3.5	10.6	SRN 100300	MS 3510	FLAG T15P	HXK 3.5
SR12	US 3510-T15P	3.0	M 3.5	10.6	SRN 120300	MS 3510	FLAG T15P	HXK 3.5
SR16	US 5018-T20P	5.0	M 5	18.2	SRN 16T3M0	MS 5015	FLAG T20P	HXK 5

SRSC(RL) EXT

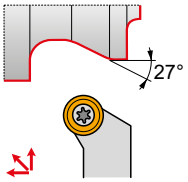
P M K N S H

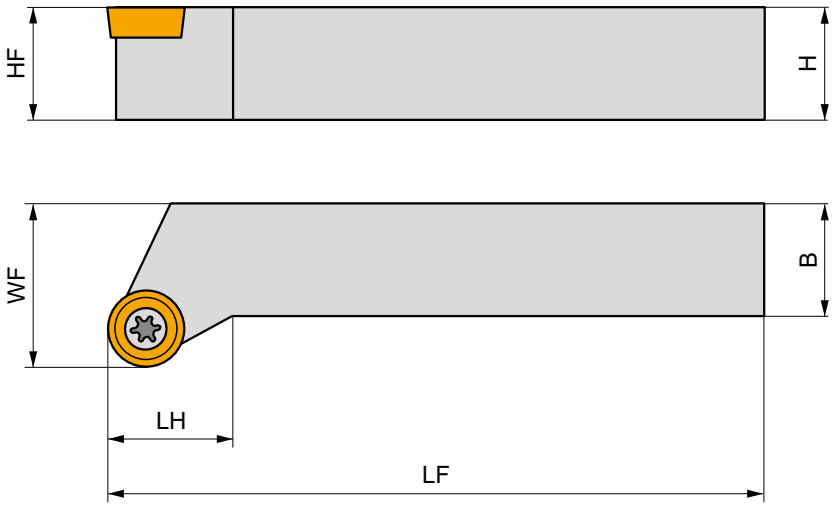
PRAMET

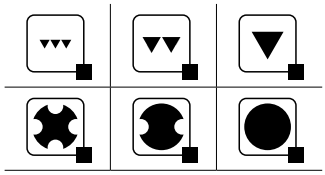
S

External Screw Lock Tool Holder for Round RC.. Insert

External Right/Left hand tool holder for screw type positive RC.. 06 up to 16 inserts. Suited for external face and longitudinal turning without shoulder, copy, taper and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SRSCR 1212 F 06	12	12	12	16	80	12	0	0	0.09	GI054	S01
	SRSCR 1616 H 06	16	16	16	20	100	12	0	0	0.22	GI054	S01
	SRSCR 2020 K 08	20	20	20	25	125	20	0	0	0.45	GI051	S03
	SRSCR 2020 K 10-M-A	20	20	20	25	125	20	0	0	0.45	GI013	SR10
	SRSCR 2525 M 10-M-A	25	25	25	32	150	20	0	0	0.75	GI013	SR10
	SRSCR 3225 P 10-M	32	25	32	32	170	20	0	0	1.06	GI013	SR10
	SRSCR 2525 M 12-M-A	25	25	25	32	150	20	0	0	0.75	GI014	SR12
	SRSCR 3225 P 12-M	32	25	32	32	170	20	0	0	1.07	GI014	SR12
	SRSCR 3225 P 16-M	32	25	32	32	170	20	0	0	1.10	GI161	SR16
L	SRSCL 1212 F 06	12	12	12	16	80	12	0	0	0.10	GI054	S01
	SRSCL 1616 H 06	16	16	16	20	100	12	0	0	0.22	GI054	S01
	SRSCL 2020 K 08	20	20	20	25	125	20	0	0	0.45	GI051	S03
	SRSCL 2020 K 10-M-A	20	20	20	25	125	20	0	0	0.45	GI013	SR10
	SRSCL 2525 M 10-M-A	25	25	25	32	150	20	0	0	0.75	GI013	SR10
	SRSCL 3225 P 10-M	32	25	32	32	170	20	0	0	1.06	GI013	SR10
	SRSCL 2525 M 12-M-A	25	25	25	32	150	20	0	0	0.75	GI014	SR12
	SRSCL 3225 P 12-M	32	25	32	32	170	20	0	0	1.07	GI014	SR12
	SRSCL 3225 P 16-M	32	25	32	32	170	20	0	0	1.10	GI161	SR16

GI013	RC.. 10T3M0
GI014	RC.. 1204M0
GI051	RC.. 0803M0
GI054	RC.. 0602M0
GI161	RC.. 1606M0

								
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S03	US 3007-T09P	2.0	M 3	7.3	–	–	FLAG T09P	–
SR10	US 3510-T15P	3.0	M 3.5	10.6	SRN 100300	MS 3510	FLAG T15P	HXK 3.5
SR12	US 3510-T15P	3.0	M 3.5	10.6	SRN 120300	MS 3510	FLAG T15P	HXK 3.5
SR16	US 5018-T20P	5.0	M 5	18.2	SRN 16T3M0	MS 5015	FLAG T20P	HXK 5

C.-SRDCN EXT

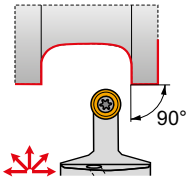
P M K N S H

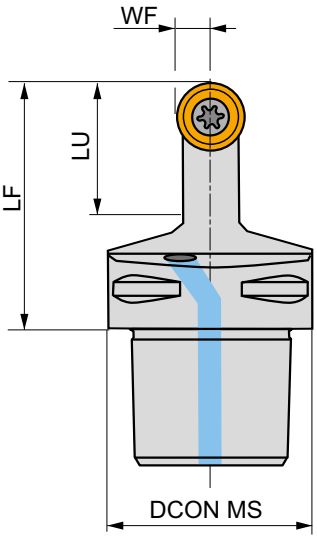
PRAMET

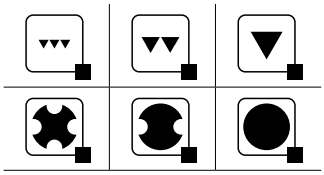
S

External PSC Quick Change Tool, Screw Lock for RC.. Insert

External neutral tool, through coolant, for screw type positive RC.. 10 up to 12 inserts. Suited for external face and longitudinal turning without shoulder, copy, taper and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 and C5. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	LU [mm]	LAMS [°]	GAMO [°]		kg		
N	**C4-SRDCN-00050-12A**	40	6	50	28	0	0	✓	0.32	GI014	C-SR12V-1
	C5-SRDCN-00060-10A	50	5	60	25	0	0	✓	0.56	GI013	C-SR10V
	C5-SRDCN-00060-12A	50	6	60	28	0	0	✓	0.56	GI014	C-SR12V-2

GI013	RC.. 10T3M0
GI014	RC.. 1204M0

		Nm						
C-SR10V	US 2010-T15P	3.0	M 3.5	10.1	SRS 110-01	MS 9001	FLAG T15P/3,5	CN 034-02
C-SR12V-1	US 2001-T15P	3.0	M 3.5	12.1	SRS 110-02	MS 9001	FLAG T15P/3,5	CN 034-01
C-SR12V-2	US 2001-T15P	3.0	M 3.5	12.1	SRS 110-02	MS 9001	FLAG T15P/3,5	CN 034-02

KHP-RSC(RL)

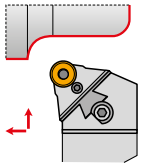
P M K

PRAMET

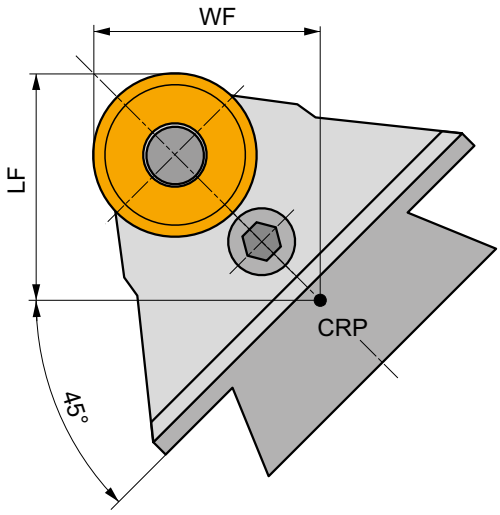
P

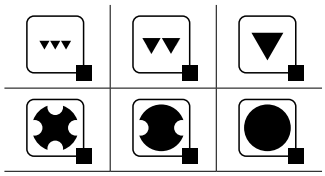
Modular KHP Lever Lock Turning Cartridge for RC.. Insert

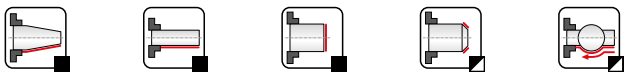
Dovetailed Right/Left hand lever lock turning cartridge for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, face turning, taper and chamfer turning with positive RC.. 20 up to 32 inserts. Tool holder treated for longer tool life.



DKHR+KHP-RSCR







	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	**KHP-RSCR 20**	35	45	0	0	1.25	GI069	PRP90
	KHP-RSCR 25	35	45	0	0	1.30	GI122	PRP80
	KHP-RSCR 32	35	45	0	0	1.30	GI096	PRP32
	KHP-RSCL 20	35	45	0	0	1.30	GI069	PRP90
	KHP-RSCL 25	35	45	0	0	1.30	GI122	PRP80
	KHP-RSCL 32	35	45	0	0	1.30	GI096	PRP32

GI069	RCMX 2006M0
GI096	RCMX 3209M0
GI122	RCMX 2507M0

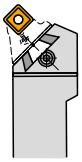
				Nm					
PRP32	RCU 320600	PU 10	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5
PRP80	RCU 250600	PU 08	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PRP90	RCU 200400	PU 09	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4

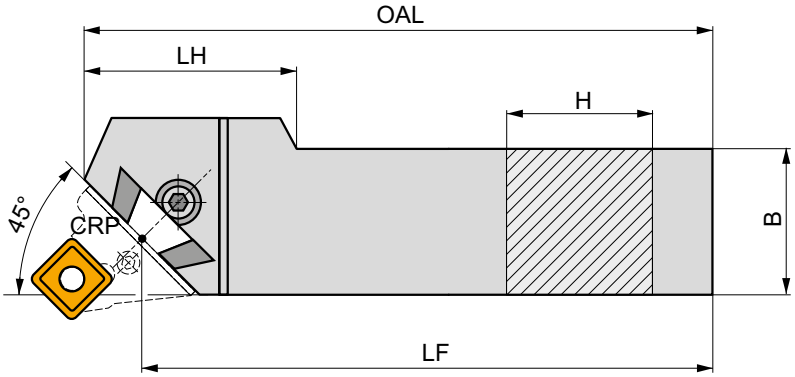
DKH(RL)

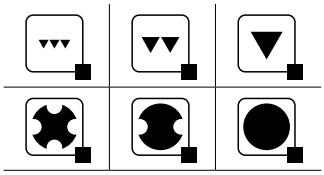
PRAMET

External Tool Holder Shank for KHP/KHS Heavy Turning Cartridges

Dovetailed Right/Left hand modular tool shank for KHP/KHS cartridges. Suited for heavy turning applications. Available with shank size 40x50 up to 60x80 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	LF [mm]	OAL [mm]	LH [mm]	kg		
R	**DKHR 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHR 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHR 6080 W-A	60	80	450	485	90	19.65	GI098	DKH10
L	**DKHL 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHL 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHL 6080 W-A	60	80	450	485	90	19.28	GI098	DKH10

GI098	KHP	KHS

DKH10	SR 14	HXK 10

SC

09/ 12/ 25/ 38

CARBIDE INSERTS

SCGT

134

SCMT

135

SCMW

138

MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
SCMT 120408E-RM	SSDCN 2020 K 12-M-A

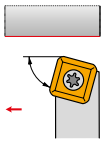
ISO TURNING – EXTERNAL

SSBC(RL) EXT

75°

SC..

09
12
25
38



12×12
60×60

139

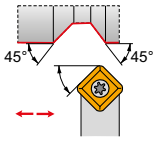
134 – 138

SSDCN EXT

45°

SC..

09
12



12×12
25×25

140

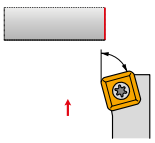
134 – 138

SSKC(RL) EXT

75°

SC..

09
12



12×12
25×25

141

134 – 138

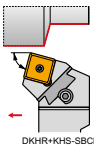
ISO TURNING – HEAVY ROUGHING – EXTERNAL

KHS-SBCR + DKH(RL)

75°

SC..

25
38



40×50
60×80

142, 143

134 – 138

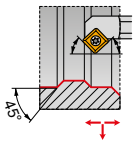
ISO TURNING – INTERNAL

SSSC(RL) INT

45°

SC..

09



25
32

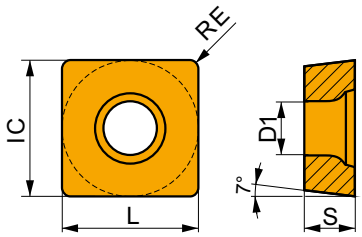
144

134 – 138

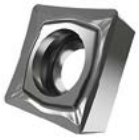
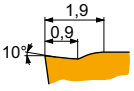
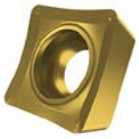
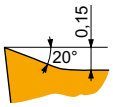
SCGT

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
09T3	9.525	4.40	9.53	3.97
09T3-SF3	9.525	4.40	9.53	4.22
1204	12.700	5.50	12.70	4.76



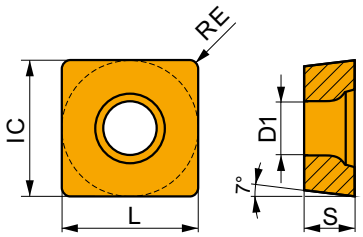
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																	
SCGT 120408F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	315	0.48	2.0	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	465	0.48	2.0	–	–	–	–	–	–
																				
			NF1 geometry with positive design for fine-finish to medium machining and continuous cuts.																	
SCGT 09T308E-NF1	**H07**	0.8	–	–	–	100	0.13	1.2	–	–	–	510	0.17	1.2	50	0.13	1.0	–	–	–
	T6310	0.8	200	0.14	1.2	140	0.13	1.2	–	–	–	600	0.17	1.2	60	0.13	1.0	40	0.15	1.0
	T7325	0.8	225	0.14	1.2	175	0.13	1.2	–	–	–	–	–	–	70	0.13	1.0	–	–	–
SCGT 120408E-NF1	**H07**	0.8	–	–	–	90	0.16	1.4	–	–	–	455	0.22	1.4	45	0.16	1.1	–	–	–
	T6310	0.8	180	0.18	1.4	125	0.16	1.4	–	–	–	540	0.22	1.4	50	0.16	1.1	35	0.15	1.0
	T7325	0.8	205	0.18	1.4	155	0.16	1.4	–	–	–	–	–	–	65	0.16	1.1	–	–	–
																				
			SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																	
SCGT 09T304E-SF3	**H07**	0.4	–	–	–	95	0.09	1.0	155	0.10	1.0	495	0.12	1.0	50	0.07	0.8	–	–	–
	T6310	0.4	185	0.10	1.0	130	0.09	1.0	145	0.10	1.0	555	0.12	1.0	55	0.07	0.8	35	0.15	1.0
	T8315	0.4	200	0.10	1.0	120	0.09	1.0	190	0.10	1.0	600	0.12	1.0	50	0.07	0.8	40	0.15	1.0
SCGT 09T308E-SF3	**T6310**	0.8	210	0.12	1.0	150	0.12	1.0	165	0.12	1.0	630	0.14	1.0	60	0.11	0.8	40	0.15	1.0
	T8315	0.8	220	0.12	1.0	130	0.12	1.0	205	0.12	1.0	660	0.14	1.0	55	0.11	0.8	40	0.15	1.0

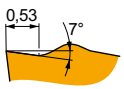
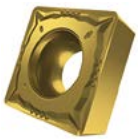
SCMT

PRAMET

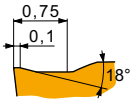
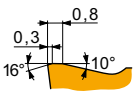
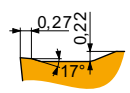
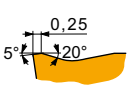
	IC [mm]	D1 [mm]	L [mm]	S [mm]
09T3	9.525	4.40	9.53	3.97
1204	12.700	5.50	12.70	4.76
2509	25.400	8.70	25.40	9.53
3809	38.100	8.70	38.10	9.53



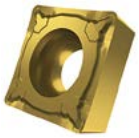
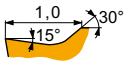
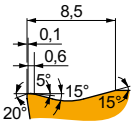
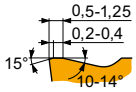
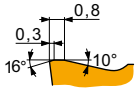
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																	
SCMT 09T304E-FF2	**T8430**	0.4	■ 210	0.12	1.2	–	–	–	◪ 175	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 260	0.12	1.2	–	–	–	◪ 245	0.12	1.2	–	–	–	–	–	–	–	–	–
SCMT 09T308E-FF2	**T8330**	0.8	■ 185	0.17	1.2	–	–	–	■ 175	0.17	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 220	0.17	1.2	–	–	–	◪ 180	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 265	0.17	1.2	–	–	–	◪ 250	0.17	1.2	–	–	–	–	–	–	–	–	–
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SCMT 09T304E-FM	**T7325**	0.4	◪ 205	0.15	1.2	■ 155	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 200	0.15	1.2	■ 155	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 190	0.15	1.2	■ 110	0.14	1.2	◪ 180	0.15	1.2	◪ 570	0.18	1.2	–	–	–	–	–	–
	T8330	0.4	■ 180	0.15	1.2	■ 105	0.14	1.2	◪ 170	0.15	1.2	◪ 540	0.18	1.2	–	–	–	–	–	–
	T8430	0.4	■ 210	0.15	1.2	■ 115	0.14	1.2	◪ 175	0.15	1.2	◪ 585	0.18	1.2	–	–	–	–	–	–
	T9315	0.4	■ 290	0.15	1.2	–	–	–	◪ 275	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 260	0.15	1.2	■ 155	0.15	1.2	◪ 245	0.15	1.2	–	–	–	–	–	–	–	–	–
SCMT 09T308E-FM	**T7325**	0.8	◪ 225	0.20	1.2	■ 175	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 215	0.20	1.2	■ 165	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 205	0.20	1.2	■ 120	0.18	1.2	◪ 190	0.20	1.2	◪ 615	0.24	1.2	–	–	–	–	–	–
	T8330	0.8	■ 195	0.20	1.2	■ 115	0.18	1.2	◪ 185	0.20	1.2	◪ 585	0.24	1.2	–	–	–	–	–	–
	T8430	0.8	■ 225	0.20	1.2	■ 120	0.18	1.2	◪ 185	0.20	1.2	◪ 615	0.24	1.2	–	–	–	–	–	–
	T9315	0.8	■ 305	0.20	1.2	–	–	–	◪ 285	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 275	0.20	1.2	■ 165	0.18	1.2	◪ 260	0.20	1.2	–	–	–	–	–	–	–	–	–
SCMT 120404E-FM	**T7325**	0.4	◪ 195	0.15	1.6	■ 150	0.15	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 185	0.15	1.6	■ 110	0.14	1.6	◪ 175	0.15	1.6	◪ 555	0.18	1.6	–	–	–	–	–	–
	T8330	0.4	■ 170	0.15	1.6	■ 100	0.14	1.6	◪ 160	0.15	1.6	◪ 510	0.18	1.6	–	–	–	–	–	–
	T8430	0.4	■ 205	0.15	1.6	■ 110	0.14	1.6	◪ 170	0.15	1.6	◪ 570	0.18	1.6	–	–	–	–	–	–
	T9315	0.4	■ 280	0.15	1.6	–	–	–	◪ 265	0.15	1.6	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 250	0.15	1.6	■ 150	0.15	1.6	◪ 235	0.15	1.6	–	–	–	–	–	–	–	–	–
SCMT 120408E-FM	**T7325**	0.8	◪ 215	0.20	1.6	■ 165	0.18	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 210	0.20	1.6	■ 160	0.18	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 200	0.20	1.6	■ 120	0.18	1.6	◪ 190	0.20	1.6	◪ 600	0.24	1.6	–	–	–	–	–	–
	T8330	0.8	■ 190	0.20	1.6	■ 110	0.18	1.6	◪ 180	0.20	1.6	◪ 570	0.24	1.6	–	–	–	–	–	–
	T8430	0.8	■ 220	0.20	1.6	■ 120	0.18	1.6	◪ 180	0.20	1.6	◪ 600	0.24	1.6	–	–	–	–	–	–
	T9315	0.8	■ 300	0.20	1.6	–	–	–	◪ 285	0.20	1.6	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 265	0.20	1.6	■ 155	0.18	1.6	◪ 250	0.20	1.6	–	–	–	–	–	–	–	–	–
SCMT 120412E-FM	**T7325**	1.2	◪ 210	0.27	1.6	■ 160	0.24	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	■ 185	0.27	1.6	■ 110	0.24	1.6	◪ 175	0.27	1.6	◪ 555	0.32	1.6	–	–	–	–	–	–
	T8430	1.2	■ 200	0.27	1.6	■ 110	0.24	1.6	◪ 165	0.27	1.6	◪ 555	0.32	1.6	–	–	–	–	–	–
	T9315	1.2	■ 275	0.27	1.6	–	–	–	◪ 260	0.27	1.6	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 245	0.27	1.6	■ 145	0.24	1.6	◪ 230	0.27	1.6	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																				
SCMT 09T304E-FM2	**T7325**	0.4	200	0.12	1.0	155	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	0.4	220	0.12	1.0	120	0.11	1.0	180	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	265	0.12	1.0	155	0.11	1.0	250	0.12	1.0	–	–	–	–	–	–	–	–	–
SCMT 09T308E-FM2	**T8330**	0.8	190	0.17	1.0	110	0.15	1.0	180	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	225	0.17	1.0	120	0.15	1.0	185	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	305	0.17	1.0	–	–	–	285	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	270	0.17	1.0	160	0.15	1.0	255	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	235	0.17	1.0	140	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
RF geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
SCMT 09T308E-RF	**T5315**	0.8	255	0.20	1.5	–	–	–	240	0.20	1.5	–	–	–	–	–	–	50	0.15	1.0
	T7335	0.8	170	0.20	1.5	130	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	220	0.20	1.5	130	0.18	1.5	205	0.20	1.5	–	–	–	–	–	–	–	–	–
SCMT 120408E-RF	**T5315**	0.8	240	0.22	2.2	–	–	–	225	0.22	2.2	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.8	160	0.22	2.2	120	0.22	2.2	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	205	0.22	2.2	120	0.22	2.2	190	0.22	2.2	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
SCMT 09T308E-RM	**T5315**	0.8	275	0.30	2.0	–	–	–	260	0.30	2.0	–	–	–	–	–	–	55	0.15	1.0
	T7335	0.8	190	0.30	2.0	145	0.27	2.0	–	–	–	–	–	–	60	0.24	1.6	–	–	–
	T8330	0.8	175	0.30	2.0	105	0.27	2.0	165	0.30	2.0	–	–	–	40	0.24	1.6	35	0.15	1.0
	T8430	0.8	190	0.30	2.0	105	0.27	2.0	155	0.30	2.0	–	–	–	40	0.24	1.6	30	0.15	1.0
	T9315	0.8	255	0.30	2.0	–	–	–	240	0.30	2.0	–	–	–	–	–	–	50	0.15	1.0
	T9325	0.8	230	0.30	2.0	135	0.27	2.0	215	0.30	2.0	–	–	–	50	0.24	1.6	–	–	–
SCMT 120408E-RM	**T5305**	0.8	305	0.30	2.3	–	–	–	285	0.30	2.3	–	–	–	–	–	–	60	0.15	1.0
	T5315	0.8	275	0.30	2.3	–	–	–	260	0.30	2.3	–	–	–	–	–	–	55	0.15	1.0
	T7335	0.8	185	0.30	2.3	140	0.27	2.3	–	–	–	–	–	–	60	0.24	1.8	–	–	–
	T8330	0.8	175	0.30	2.3	105	0.27	2.3	165	0.30	2.3	–	–	–	40	0.24	1.8	35	0.15	1.0
	T8430	0.8	190	0.30	2.3	105	0.27	2.3	155	0.30	2.3	–	–	–	40	0.24	1.8	30	0.15	1.0
	T9315	0.8	250	0.30	2.3	–	–	–	235	0.30	2.3	–	–	–	–	–	–	50	0.15	1.0
	T9325	0.8	225	0.30	2.3	135	0.27	2.3	210	0.30	2.3	–	–	–	50	0.24	1.8	–	–	–
																				
RM3 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
SCMT 120408E-RM3	**T6310**	0.8	155	0.27	2.3	110	0.27	2.3	125	0.27	2.3	–	–	–	–	–	–	30	0.15	1.0
	T8330	0.8	155	0.27	2.3	90	0.27	2.3	145	0.27	2.3	–	–	–	–	–	–	30	0.15	1.0
	T8430	0.8	170	0.27	2.3	90	0.27	2.3	135	0.27	2.3	–	–	–	–	–	–	25	0.15	1.0
	T9315	0.8	225	0.27	2.3	–	–	–	210	0.27	2.3	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	205	0.27	2.3	120	0.27	2.3	190	0.27	2.3	–	–	–	–	–	–	–	–	–
	T9335	0.8	175	0.27	2.3	105	0.27	2.3	–	–	–	–	–	–	–	–	–	–	–	–
SCMT 120412E-RM3	**T7325**	1.2	175	0.30	2.3	135	0.27	2.3	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	205	0.30	2.3	120	0.27	2.3	190	0.30	2.3	–	–	–	–	–	–	–	–	–

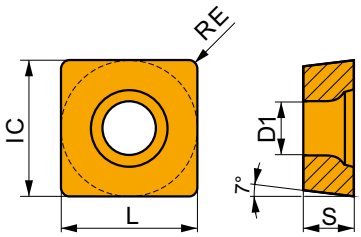
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																				
SCMT 09T304E-UR	**T7325**	0.4	175	0.15	1.2	135	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	155	0.15	1.2	90	0.14	1.2	145	0.15	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	180	0.15	1.2	95	0.14	1.2	145	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	250	0.15	1.2	–	–	–	235	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	225	0.15	1.2	135	0.15	1.2	210	0.15	1.2	–	–	–	–	–	–	–	–	–
SCMT 09T308E-UR	**T5315**	0.8	280	0.20	1.2	–	–	–	265	0.20	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.8	195	0.20	1.2	150	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	170	0.20	1.2	100	0.18	1.2	160	0.20	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	190	0.20	1.2	105	0.18	1.2	155	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	260	0.20	1.2	–	–	–	245	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	235	0.20	1.2	140	0.18	1.2	220	0.20	1.2	–	–	–	–	–	–	–	–	–
	TT310	0.8	270	0.20	1.2	160	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
SCMT 120408E-UR	**T5315**	0.8	270	0.20	1.6	–	–	–	255	0.20	1.6	–	–	–	–	–	–	–	–	–
	T7325	0.8	185	0.20	1.6	140	0.18	1.6	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	165	0.20	1.6	95	0.18	1.6	155	0.20	1.6	–	–	–	–	–	–	–	–	–
	T8430	0.8	185	0.20	1.6	100	0.18	1.6	150	0.20	1.6	–	–	–	–	–	–	–	–	–
	T9315	0.8	260	0.20	1.6	–	–	–	245	0.20	1.6	–	–	–	–	–	–	–	–	–
	T9325	0.8	230	0.20	1.6	135	0.18	1.6	215	0.20	1.6	–	–	–	–	–	–	–	–	–
SCMT 120412E-UR	**T8330**	1.2	160	0.27	1.6	95	0.24	1.6	150	0.27	1.6	–	–	–	–	–	–	–	–	–
	T8430	1.2	175	0.27	1.6	95	0.24	1.6	140	0.27	1.6	–	–	–	–	–	–	–	–	–
	T9325	1.2	215	0.27	1.6	125	0.24	1.6	200	0.27	1.6	–	–	–	–	–	–	–	–	–
																				
DR4 geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																				
SCMT 380932E-DR4	**T9335**	3.2	50	1.33	16.0	30	1.20	16.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
OR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																				
SCMT 250924E-OR	**T9226**	2.4	80	1.00	10.0	45	0.90	10.0	75	1.00	10.0	–	–	–	15	0.70	8.0	–	–	–
	T9325	2.4	90	1.00	10.0	50	0.90	10.0	85	1.00	10.0	–	–	–	20	0.70	8.0	–	–	–
	T9335	2.4	70	1.00	10.0	40	0.90	10.0	–	–	–	–	–	–	15	0.70	8.0	–	–	–
SCMT 380932E-OR	**6635**	3.2	60	1.20	18.0	35	1.08	18.0	–	–	–	–	–	–	15	1.08	9.9	–	–	–
	T9226	3.2	65	1.20	18.0	35	1.08	18.0	60	1.20	18.0	–	–	–	10	1.08	9.9	–	–	–
	T9315	3.2	85	1.20	18.0	–	–	–	80	1.20	18.0	–	–	–	–	–	–	–	–	–
	T9325	3.2	80	1.20	18.0	45	1.08	18.0	75	1.20	18.0	–	–	–	15	1.08	9.9	–	–	–
	T9335	3.2	60	1.20	18.0	35	1.08	18.0	–	–	–	–	–	–	10	1.08	9.9	–	–	–
																				
SR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																				
SCMT 250924E-SR	**T9325**	2.4	70	1.00	14.0	40	0.90	14.0	65	1.00	14.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	60	1.00	14.0	35	0.90	14.0	–	–	–	–	–	–	–	–	–	–	–	–
SCMT 380932E-SR	**T9335**	3.2	50	1.30	20.0	30	1.30	20.0	–	–	–	–	–	–	–	–	–	–	–	–

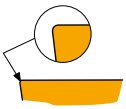
SCMW

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
09T3	9.525	4.40	9.53	3.97
1204	12.700	5.50	12.70	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SCMW 09T304	**T5305**	0.4	–	–	–	–	–	–	240	0.10	2.0	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	205	0.10	2.0	–	–	–	–	–	–	40	0.15	1.0
SCMW 09T308	**T5305**	0.8	–	–	–	–	–	–	220	0.20	2.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	190	0.20	2.0	–	–	–	–	–	–	40	0.15	1.0
SCMW 120408	**T5305**	0.8	–	–	–	–	–	–	205	0.20	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	185	0.20	4.0	–	–	–	–	–	–	35	0.15	1.0

SSBC(RL) EXT

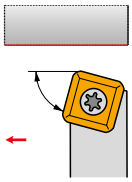
P M K N S H

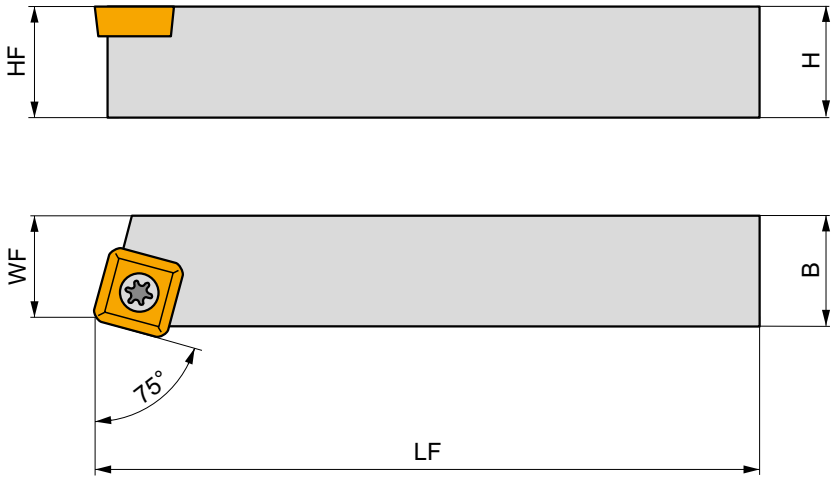
PRAMET

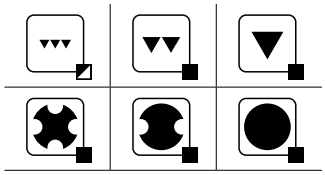
S

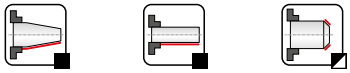
External Screw Lock Tool Holder with 75° Cutting Angle for SC.. Insert

External Right/Left hand tool holder for screw type positive SC.. 09 up to 38 inserts. Suited for external longitudinal turning without shoulder, taper and chamfer turning. Available with shank size 12x12 up to 60x60 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	SSBCR 1212 F 09	12	12	12	11	80	0	0	0.10	GI053	S08
	SSBCR 1616 H 09	16	16	16	13	100	0	0	0.20	GI053	S08
	SSBCR 2020 K 12-M-A	20	20	20	17	125	0	0	0.40	GI015	SS20
	SSBCR 2525 M 12-M-A	25	25	25	22	150	0	0	0.76	GI015	SS20
	SSBCR 4040 S 25	40	40	40	35	250	0	0	3.01	GI131	SS25
	SSBCR 5050 T 25	50	50	50	43	300	0	0	5.65	GI131	SS25
	SSBCR 5050 T 38-A	50	50	50	43	300	0	0	4.84	GI164	SS38A
	SSBCR 6060 V 38-A	60	60	60	53	400	0	0	11.10	GI164	SS38A
L	SSBCL 1212 F 09	12	12	12	11	80	0	0	0.10	GI053	S08
	SSBCL 1616 H 09	16	16	16	13	100	0	0	0.22	GI053	S08
	SSBCL 2020 K 12-M-A	20	20	20	17	125	0	0	0.40	GI015	SS20
	SSBCL 2525 M 12-M-A	25	25	25	22	150	0	0	0.47	GI015	SS20
	SSBCL 4040 S 25	40	40	40	35	250	0	0	3.01	GI131	SS25
	SSBCL 5050 T 25	50	50	50	43	300	0	0	5.65	GI131	SS25
	SSBCL 5050 T 38-A	50	50	50	43	300	0	0	5.78	GI164	SS38A
	SSBCL 6060 V 38-A	60	60	60	53	400	0	0	11.16	GI164	SS38A

GI015	SC.. 1204..
GI053	SC.. 09T3..
GI131	SC.. 2509..
GI164	SC.. 3809..

		Nm							
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	–
SS20	US 5012-T15P	5.0	M 5	12.2	SSN 120304	MS 5008	FLAG T15P	HXK 5	–
SS25	US 8025-T30P	13.0	M 8	24.2	SSN 250620	MS 8020	–	HXK 5	SDR T30P
SS38A	US 8025-T30P	13.0	M 8	24.2	SSN 380920	MS 8020	–	HXK 5	SDR T30P

SSDCN EXT

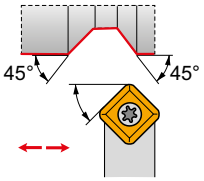
P M K N S H

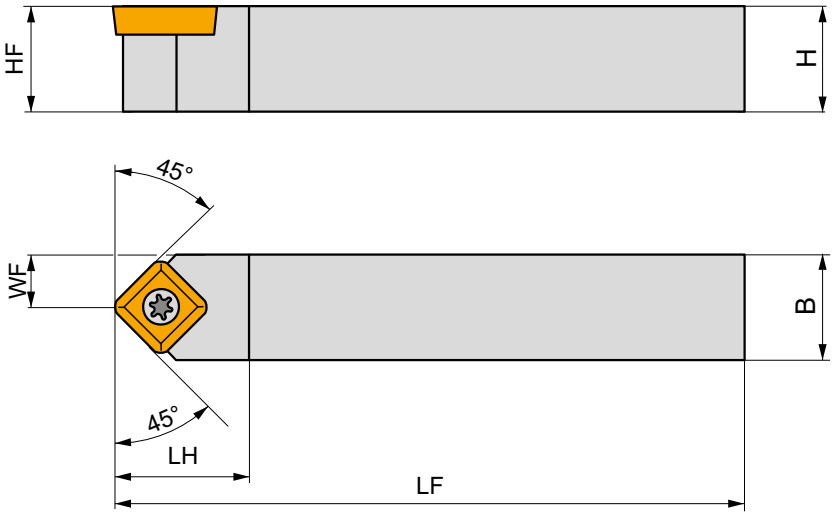
PRAMET

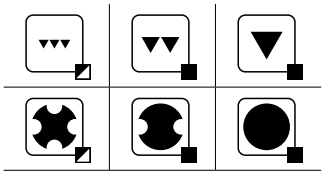
S

External Screw Lock Tool Holder with 45° Cutting Angle for SC.. Insert

External neutral tool holder for screw type positive SC.. 09 or 12 inserts. Suited for external longitudinal turning without shoulder, copy, taper and chamfer turning. Available with shank size 12x12 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
N	**SSDCN 1212 F 09**	12	12	12	6	80	–	0	0	0.12	GI053	S08
	SSDCN 1616 H 09	16	16	16	8	100	–	0	0	0.20	GI053	S08
	SSDCN 2020 K 12-M-A	20	20	20	10	125	–	0	0	0.42	GI015	SS20
	SSDCN 2525 M 12-M-A	25	25	25	12.5	150	–	0	0	0.74	GI015	SS20

GI015	SC.. 1204..
GI053	SC.. 09T3..

		Nm						
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SS20	US 5012-T15P	5.0	M 5	12.2	SSN 120304	MS 5008	FLAG T15P	HXK 5

SSKC(RL) EXT

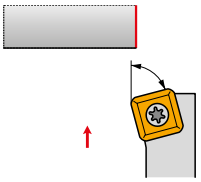
P M K N S H

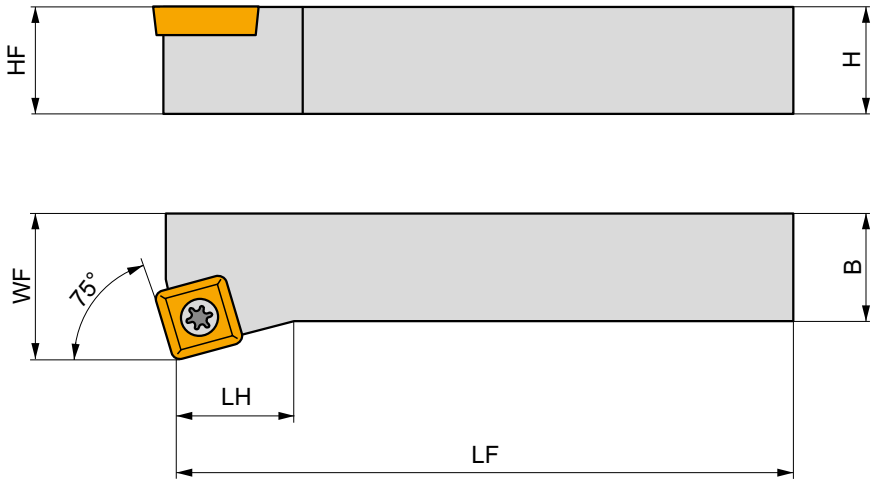
PRAMET

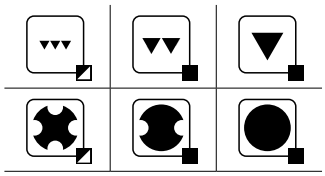
S

Ext. Screw Lock Tool Holder, 75° (Face Turning) Cutting Angle for SC.. Insert

External Right/Left hand tool holder for screw type positive SC.. 09 up to 12 inserts. Suited for external face turning without shoulder and chamfer turning. Available with shank size 12x12 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SSKCR 1212 F 09	12	12	12	16	80	32	0	0	0.10	GI053	S08
	SSKCR 1616 H 09	16	16	16	20	100	32	0	0	0.25	GI053	S08
	SSKCR 2020 K 12-M-A	20	20	20	25	125	36	0	0	0.75	GI015	SS20
	SSKCR 2525 M 12-M-A	25	25	25	32	150	36	0	0	0.75	GI015	SS20
L	SSKCL 1212 F 09	12	12	12	16	80	32	0	0	0.10	GI053	S08
	SSKCL 1616 H 09	16	16	16	20	100	32	0	0	0.22	GI053	S08
	SSKCL 2020 K 12-M-A	20	20	20	25	125	36	0	0	0.45	GI015	SS20
	SSKCL 2525 M 12-M-A	25	25	25	32	150	36	0	0	0.80	GI015	SS20

GI015	SC.. 1204..
GI053	SC.. 09T3..

		Nm						
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SS20	US 5012-T15P	5.0	M 5	12.2	SSN 120304	MS 5008	FLAG T15P	HXK 5

KHS-SBC(RL)

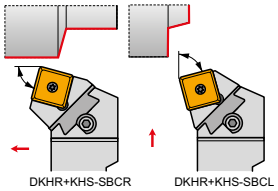
P M K

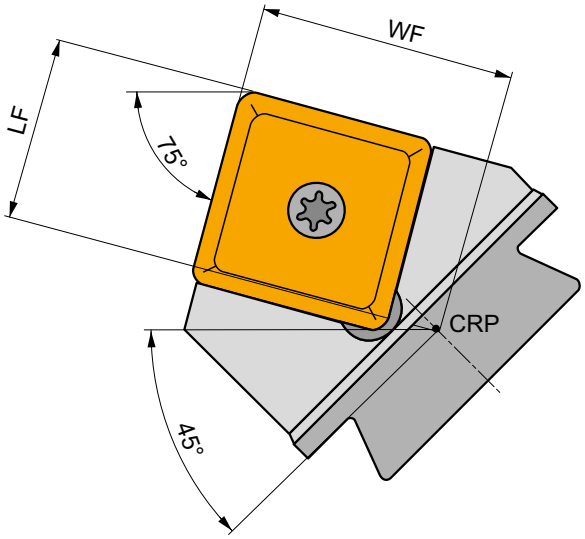
PRAMET

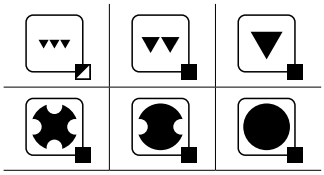
S

Modular KHS Screw Clamp Turning Cartridge 75° Cutting Angle for SC.. Insert

Dovetailed Right/Left hand lever lock turning cartridge, 75° cutting angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, face turning, taper and chamfer turning with positive SC.. 25 or 38 inserts Tool holder treated for longer tool life.







	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	KHS-SBCR 25	47	36	0	0	1.50	GI131	SS26
	KHS-SBCR 38-A	47	36	0	0	1.50	GI164	SS38
L	KHS-SBCL 25	47	36	0	0	1.45	GI131	SS26
	KHS-SBCL 38-A	47	36	0	0	1.48	GI164	SS38

GI131	SC.. 2509..
GI164	SC.. 3809..

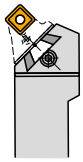
		Nm						
SS26	US 8025-T30P	13.0	M 8	24.2	SSN 250620	MS 8020	SDR T30P	HXK 5
SS38	US 8025-T30P	13.0	M 8	24.2	SSN 380620	MS 8020	SDR T30P	HXK 5

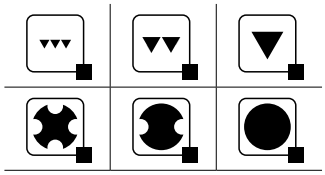
DKH(RL)

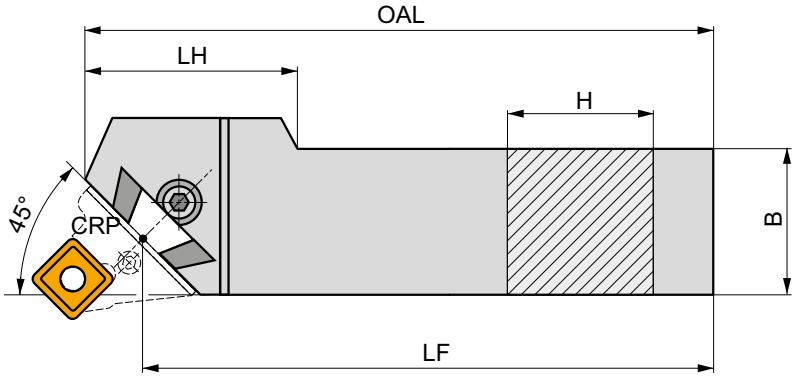
PRAMET

External Tool Holder Shank for KHP/KHS Heavy Turning Cartridges

Dovetailed Right/Left hand modular tool shank for KHP/KHS cartridges. Suited for heavy turning applications. Available with shank size 40x50 up to 60x80 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	LF [mm]	OAL [mm]	LH [mm]	kg		
R	**DKHR 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHR 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHR 6080 W-A	60	80	450	485	90	19.65	GI098	DKH10
L	**DKHL 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHL 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHL 6080 W-A	60	80	450	485	90	19.28	GI098	DKH10

GI098	KHP	KHS

DKH10	SR 14	HXK 10

SSSC(RL) INT

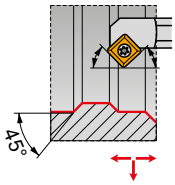
P M K N S H

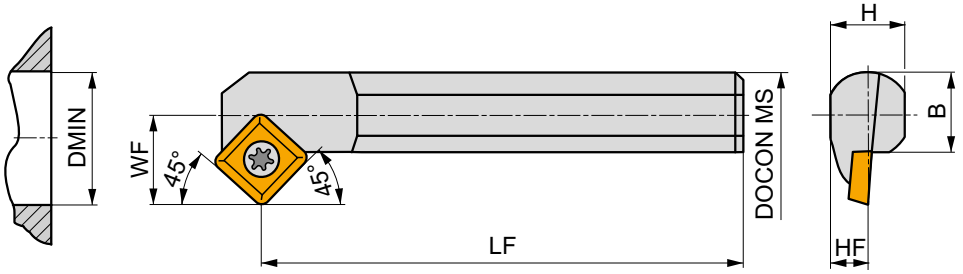
PRAMET

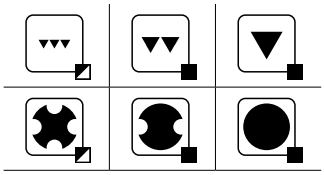
S

Internal Screw Lock Boring Bar with 45° Cutting Angle for SC.. Insert

Internal Right/Left hand boring bar with 45° cutting angle for screw type SC.. 09 inserts. Minimum internal turning diameter Ø25 mm. For internal back chamfer, taper, multi-directional, chamfer and longitudinal turning without shoulder. Available with shank size Ø20 up to Ø25 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	S20S-SSSCR 09	20	25	13	18	18.5	250	-5	0	0.61	GI053	S04
	S25T-SSSCR 09	25	32	17	23	23	300	-3	0	1.15	GI053	S04
L	S20S-SSSCL 09	20	25	13	18	18.5	250	-5	0	0.05	GI053	S04
	S25T-SSSCL 09	25	32	17	23	23	300	-3	0	1.11	GI053	S04

GI053	SC.. 09T3..

S04	US 3510-T15P	3.0	M 3.5	10.6	FLAG T15P

SP

09/ 12/ 15/ 19/ 25

CARBIDE INSERTS

SPMR

146

SPUN

146

CER INSERTS

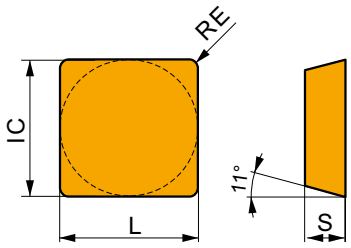
SPGN CER

147

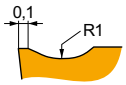
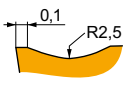
SPMR

PRAMET

	IC [mm]	L [mm]	S [mm]
0903	9.525	9.53	3.18
1203	12.700	12.70	3.18



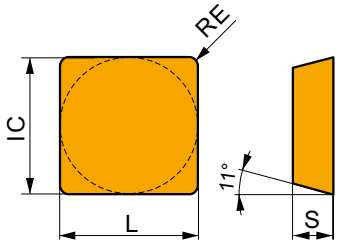
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
Geometry 46 for fine to finish machining, and continuous to interrupted cuts.																				
SPMR 090304E-46	**T9325**	0.4	215	0.15	1.0	125	0.15	1.0	200	0.15	1.0	–	–	–	–	–	–	–	–	–
SPMR 090308E-46	**T9325**	0.8	255	0.15	1.0	150	0.15	1.0	240	0.15	1.0	–	–	–	–	–	–	–	–	–
																				
Geometry 48 for finish to semi-rough machining, and continuous to interrupted cuts.																				
SPMR 120304E-48	**T9325**	0.4	170	0.22	2.2	100	0.22	2.2	160	0.22	2.2	–	–	–	–	–	–	–	–	–
	T9335	0.4	145	0.22	2.2	85	0.22	2.2	–	–	–	–	–	–	–	–	–	–	–	–
SPMR 120308E-48	**6640**	0.8	160	0.22	2.2	95	0.22	2.2	150	0.22	2.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	205	0.22	2.2	120	0.22	2.2	190	0.22	2.2	–	–	–	–	–	–	–	–	–
	T9335	0.8	175	0.22	2.2	105	0.22	2.2	–	–	–	–	–	–	–	–	–	–	–	–
SPMR 120312E-48	**T9325**	1.2	215	0.22	2.2	125	0.22	2.2	200	0.22	2.2	–	–	–	–	–	–	–	–	–

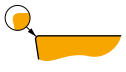
SPUN

PRAMET

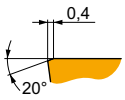
	IC [mm]	L [mm]	M [mm]	S [mm]
1203	12.700	12.70	2	3.18
1504	15.875	15.88	3	4.76
1904	19.050	19.05	3	4.76
2506	25.400	25.40	4	6.35



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
SPUN 120308	**6640**	0.8	180	0.15	4.0	–	–	–	170	0.15	4.0	–	–	–	–	–	–	–	–	–
SPUN 120312	**6640**	1.2	190	0.15	4.0	–	–	–	180	0.15	4.0	–	–	–	–	–	–	–	–	–
SPUN 150408	**6640**	0.8	155	0.20	5.0	–	–	–	145	0.20	5.0	–	–	–	–	–	–	–	–	–

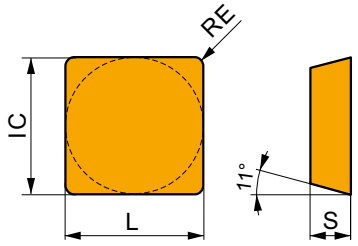
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SPUN 150412	**6640**	1.2	165	0.20	5.0	–	–	–	155	0.20	5.0	–	–	–	–	–	–	–	–	–
SPUN 190408	**6640**	0.8	150	0.20	6.0	–	–	–	140	0.20	6.0	–	–	–	–	–	–	–	–	–
SPUN 190412	**6640**	1.2	160	0.20	6.0	–	–	–	150	0.20	6.0	–	–	–	–	–	–	–	–	–
SPUN 190416	**6640**	1.6	165	0.20	6.0	–	–	–	155	0.20	6.0	–	–	–	–	–	–	–	–	–
			S																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SPUN 250620S	**6640**	2.0	80	0.40	12.0	–	–	–	75	0.40	12.0	–	–	–	–	–	–	–	–	–

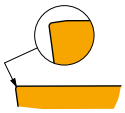
SPGN CER

PRAMET

	IC [mm]	L [mm]	S [mm]
1203	12.700	12.70	3.18



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			HSC		T															
			For machining with high speeds and continuous cuts.																	
SPGN 120308 T01020	**TC100**	0.8	–	–	–	–	–	–	530	0.20	1.5	–	–	–	–	–	–	–	–	–

TC

06/ 09/ 11/16

CARBIDE INSERTS

TCGT

149

TCMT

150

TCMW

154

CBN INSERTS

TCGW CBN

154

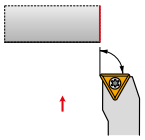
MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
TCMT 110204E-FF2	STFCR 1616 H 11

ISO TURNING – EXTERNAL

STFC(RL) EXT

90° | TC..



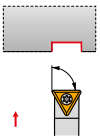
11
16

16×16
25×25

155 | 149 – 154

STFC(RL)-A EXT

90° | TC..



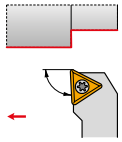
11

20×20

156 | 149 – 154

STJC(RL) EXT

93° | TC..



11
16

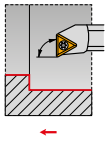
16×16
25×25

157 | 149 – 154

ISO TURNING – INTERNAL

STFC(RL) INT

90° | TC..



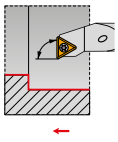
06
09
11
16

ØDmin
8,5
40

158 | 149 – 154

STFC(RL)-E INT

90° | TC..



06
09
11

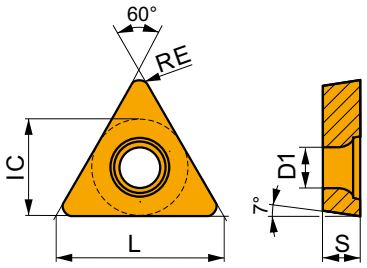
ØDmin
8,5
20

160 | 149 – 154

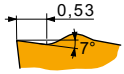
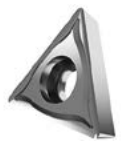
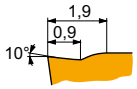
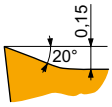
TCGT

PRAMET

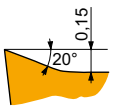
	IC [mm]	D1 [mm]	L [mm]	S [mm]
06T1	3.970	2.20	6.90	1.98
0902	5.560	2.50	9.60	2.38
1102	6.350	2.80	11.00	2.38
1102-SF3	6.350	2.80	11.00	2.58
16T3	9.525	4.40	16.50	3.97
16T3-SF3	9.525	4.40	16.50	4.22



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			F																	
AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																				
TCGT 090202F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	■ 375	0.12	1.0	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	■ 555	0.12	1.0	–	–	–	–	–	–
TCGT 090204F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	■ 300	0.24	1.0	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	■ 450	0.24	1.0	–	–	–	–	–	–
TCGT 110202F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	■ 360	0.12	1.5	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	■ 525	0.12	1.5	–	–	–	–	–	–
TCGT 110204F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	■ 285	0.24	1.5	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	■ 420	0.24	1.5	–	–	–	–	–	–
TCGT 110208F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	■ 270	0.48	1.5	–	–	–	–	–	–
TCGT 16T304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	■ 285	0.24	2.4	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	■ 405	0.24	2.4	–	–	–	–	–	–
TCGT 16T308F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	■ 255	0.48	2.4	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	■ 360	0.48	2.4	–	–	–	–	–	–
			U		E															
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
TCGT 06T102E-FF2	**T8330**	0.2	■ 175	0.05	0.8	–	–	–	■ 165	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 235	0.05	0.8	–	–	–	◪ 190	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	■ 295	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TCGT 090202E-FF2	**TT010**	0.2	■ 295	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			U		E															
NF1 geometry with positive design for fine-finish to medium machining, and continuous cuts.																				
TCGT 110204E-NF1	**H07**	0.4	–	–	–	◪ 80	0.09	0.8	–	–	–	◪ 415	0.12	0.8	■ 40	0.08	0.6	–	–	–
	T6310	0.4	■ 155	0.10	0.8	■ 110	0.09	0.8	–	–	–	◪ 465	0.12	0.8	■ 45	0.08	0.6	◪ 30	0.15	1.0
	T7325	0.4	◪ 180	0.10	0.8	■ 140	0.09	0.8	–	–	–	–	–	–	■ 55	0.08	0.6	–	–	–
			E																	
SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
TCGT 110202E-SF3	**T6310**	0.2	◪ 175	0.05	0.8	■ 125	0.05	0.8	◪ 140	0.05	0.8	■ 525	0.06	0.8	■ 50	0.04	0.6	◪ 35	0.15	1.0
	T8315	0.2	◪ 185	0.05	0.8	■ 110	0.05	0.8	◪ 175	0.05	0.8	■ 555	0.06	0.8	◪ 45	0.04	0.6	◪ 35	0.15	1.0
TCGT 110204E-SF3	**H07**	0.4	–	–	–	◪ 80	0.09	0.8	◪ 130	0.10	0.8	■ 415	0.12	0.8	■ 40	0.07	0.6	–	–	–
	T6310	0.4	◪ 155	0.10	0.8	■ 110	0.09	0.8	◪ 125	0.10	0.8	■ 465	0.12	0.8	■ 45	0.07	0.6	◪ 30	0.15	1.0
	T8315	0.4	◪ 165	0.10	0.8	■ 95	0.09	0.8	◪ 155	0.10	0.8	■ 495	0.12	0.8	◪ 40	0.07	0.6	◪ 30	0.15	1.0

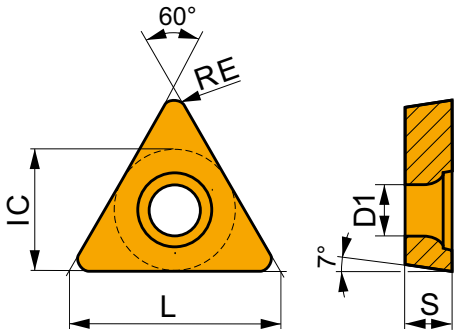
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
TCGT 16T304E-SF3	**H07**	0.4	–	–	–	80	0.09	1.0	125	0.10	1.0	405	0.12	1.0	40	0.07	0.8	–	–	–
	T6310	0.4	150	0.10	1.0	105	0.09	1.0	120	0.10	1.0	450	0.12	1.0	45	0.07	0.8	30	0.15	1.0
	T8315	0.4	160	0.10	1.0	95	0.09	1.0	150	0.10	1.0	480	0.12	1.0	40	0.07	0.8	30	0.15	1.0
TCGT 16T308E-SF3	**H07**	0.8	–	–	–	90	0.09	1.2	145	0.10	1.2	470	0.12	1.2	45	0.08	1.0	–	–	–
	T6310	0.8	175	0.10	1.2	125	0.09	1.2	140	0.10	1.2	525	0.12	1.2	50	0.08	1.0	35	0.15	1.0
	T8315	0.8	185	0.10	1.2	110	0.09	1.2	175	0.10	1.2	555	0.12	1.2	45	0.08	1.0	35	0.15	1.0
TCGT 16T312E-SF3	**T6310**	1.2	150	0.20	1.2	105	0.18	1.2	120	0.20	1.2	450	0.24	1.2	45	0.14	1.0	30	0.15	1.0
																				
ER-SI geometry with positive right-handed design for fine-finish machining, and continuous cuts.																				
TCGT 110202ER-SI	**T8315**	0.2	190	0.10	0.8	110	0.09	0.8	180	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
	T8330	0.2	180	0.10	0.8	105	0.09	0.8	170	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
	T8430	0.2	225	0.10	0.8	120	0.09	0.8	185	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
TCGT 110204ER-SI	**T8330**	0.4	180	0.12	0.8	105	0.11	0.8	170	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
	T8430	0.4	225	0.12	0.8	120	0.11	0.8	185	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
																				
EL-SI geometry with positive left-handed design for fine-finish machining, and continuous cuts.																				
TCGT 110202EL-SI	**T8315**	0.2	190	0.10	0.8	110	0.09	0.8	180	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
	T8330	0.2	180	0.10	0.8	105	0.09	0.8	170	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
	T8430	0.2	225	0.10	0.8	120	0.09	0.8	185	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
TCGT 110204EL-SI	**T8315**	0.4	195	0.12	0.8	115	0.11	0.8	185	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
	T8330	0.4	180	0.12	0.8	105	0.11	0.8	170	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–
	T8430	0.4	225	0.12	0.8	120	0.11	0.8	185	0.12	0.8	–	–	–	45	0.10	0.6	–	–	–

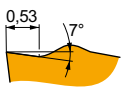
TCMT

PRAMET

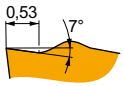
	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
06T1	3.970	2.20	6.90	1.98
0902	5.560	2.50	9.60	2.38
1102	6.350	2.80	11.00	2.38
16T3	9.525	4.40	16.50	3.97



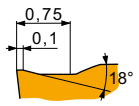
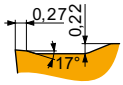
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
TCMT 06T102E-FF2	**T8330**	0.2	175	0.05	0.8	–	–	–	165	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	235	0.05	0.8	–	–	–	190	0.05	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.2	335	0.05	0.8	–	–	–	315	0.05	0.8	–	–	–	–	–	–	–	–	–

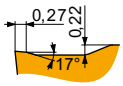
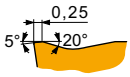
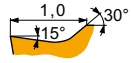
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
TCMT 06T104E-FF2	**T7325**	0.4	◪ 170	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 145	0.12	0.8	–	–	–	■ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 180	0.12	0.8	–	–	–	◪ 145	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 245	0.12	0.8	–	–	–	◪ 230	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 220	0.12	0.8	–	–	–	◪ 205	0.12	0.8	–	–	–	–	–	–	–	–	–
TCMT 090204E-FF2	**T5315**	0.4	◪ 240	0.12	1.0	–	–	–	■ 225	0.12	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.4	◪ 165	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 140	0.12	1.0	–	–	–	■ 130	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 175	0.12	1.0	–	–	–	◪ 140	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 240	0.12	1.0	–	–	–	◪ 225	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 215	0.12	1.0	–	–	–	◪ 200	0.12	1.0	–	–	–	–	–	–	–	–	–
TCMT 110204E-FF2	**T7325**	0.4	◪ 170	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 145	0.12	0.8	–	–	–	■ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 180	0.12	0.8	–	–	–	◪ 145	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 245	0.12	0.8	–	–	–	◪ 230	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 220	0.12	0.8	–	–	–	◪ 205	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 185	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TCMT 110208E-FF2	**T7325**	0.8	◪ 180	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 155	0.17	0.8	–	–	–	■ 145	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 185	0.17	0.8	–	–	–	◪ 150	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 250	0.17	0.8	–	–	–	◪ 235	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 225	0.17	0.8	–	–	–	◪ 210	0.17	0.8	–	–	–	–	–	–	–	–	–
TCMT 16T304E-FF2	**T7325**	0.4	◪ 170	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 145	0.12	0.8	–	–	–	■ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 180	0.12	0.8	–	–	–	◪ 145	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 245	0.12	0.8	–	–	–	◪ 230	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 220	0.12	0.8	–	–	–	◪ 205	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 185	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 295	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TCMT 16T308E-FF2	**T7325**	0.8	◪ 180	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 155	0.17	0.8	–	–	–	■ 145	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 185	0.17	0.8	–	–	–	◪ 150	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 250	0.17	0.8	–	–	–	◪ 235	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 225	0.17	0.8	–	–	–	◪ 210	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 195	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
TCMT 110202E-FM	**T7325**	0.2	◪ 185	0.10	0.8	■ 140	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.2	◪ 185	0.10	0.8	■ 140	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	◪ 170	0.10	0.8	■ 100	0.09	0.8	◪ 160	0.10	0.8	◪ 510	0.12	0.8	–	–	–	–	–	–
	T8330	0.2	■ 160	0.10	0.8	■ 95	0.09	0.8	◪ 150	0.10	0.8	◪ 480	0.12	0.8	–	–	–	–	–	–
	T8430	0.2	■ 195	0.10	0.8	■ 105	0.09	0.8	◪ 160	0.10	0.8	◪ 540	0.12	0.8	–	–	–	–	–	–
	T9315	0.2	■ 270	0.10	0.8	–	–	–	◪ 255	0.10	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.2	■ 245	0.10	0.8	■ 145	0.09	0.8	◪ 230	0.10	0.8	–	–	–	–	–	–	–	–	–
TCMT 110204E-FM	**T7325**	0.4	◪ 160	0.19	0.8	■ 120	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 155	0.19	0.8	■ 120	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 170	0.12	0.8	■ 100	0.11	0.8	◪ 160	0.12	0.8	◪ 510	0.14	0.8	–	–	–	–	–	–
	T8330	0.4	■ 160	0.12	0.8	■ 95	0.11	0.8	◪ 150	0.12	0.8	◪ 480	0.14	0.8	–	–	–	–	–	–
	T8430	0.4	■ 195	0.12	0.8	■ 105	0.11	0.8	◪ 160	0.12	0.8	◪ 540	0.14	0.8	–	–	–	–	–	–
	T9315	0.4	■ 270	0.12	0.8	–	–	–	◪ 255	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 205	0.18	0.8	■ 120	0.16	0.8	◪ 190	0.18	0.8	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
TCMT 110208E-FM	**T7325**	0.8	◪ 195	0.17	0.8	■ 150	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 175	0.17	0.8	■ 105	0.15	0.8	◪ 165	0.17	0.8	◪ 525	0.20	0.8	–	–	–	–	–	–
	T8430	0.8	■ 200	0.17	0.8	■ 110	0.15	0.8	◪ 165	0.17	0.8	◪ 555	0.20	0.8	–	–	–	–	–	–
	T9315	0.8	■ 275	0.17	0.8	–	–	–	◪ 260	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 250	0.17	0.8	■ 150	0.15	0.8	◪ 235	0.17	0.8	–	–	–	–	–	–	–	–	–
TCMT 16T304E-FM	**T7325**	0.4	◪ 150	0.19	1.7	■ 115	0.17	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 145	0.19	1.7	■ 110	0.17	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 155	0.12	1.7	■ 90	0.11	1.7	◪ 145	0.12	1.7	◪ 465	0.14	1.7	–	–	–	–	–	–
	T8330	0.4	■ 150	0.12	1.7	■ 90	0.11	1.7	◪ 140	0.12	1.7	◪ 450	0.14	1.7	–	–	–	–	–	–
	T8430	0.4	■ 180	0.12	1.7	■ 95	0.11	1.7	◪ 145	0.12	1.7	◪ 495	0.14	1.7	–	–	–	–	–	–
	T9315	0.4	■ 250	0.12	1.7	–	–	–	◪ 235	0.12	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 190	0.18	1.7	■ 110	0.16	1.7	◪ 180	0.18	1.7	–	–	–	–	–	–	–	–	–
TCMT 16T308E-FM	**T7325**	0.8	◪ 180	0.17	1.7	■ 140	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 175	0.17	1.7	■ 135	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 170	0.17	1.7	■ 100	0.15	1.7	◪ 160	0.17	1.7	◪ 510	0.20	1.7	–	–	–	–	–	–
	T8330	0.8	■ 160	0.17	1.7	■ 95	0.15	1.7	◪ 150	0.17	1.7	◪ 480	0.20	1.7	–	–	–	–	–	–
	T8430	0.8	■ 185	0.17	1.7	■ 100	0.15	1.7	◪ 150	0.17	1.7	◪ 510	0.20	1.7	–	–	–	–	–	–
	T9315	0.8	■ 255	0.17	1.7	–	–	–	◪ 240	0.17	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 230	0.17	1.7	■ 135	0.15	1.7	◪ 215	0.17	1.7	–	–	–	–	–	–	–	–	–
																				
FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																				
TCMT 110204E-FM2	**T8330**	0.4	■ 145	0.12	0.8	◪ 85	0.11	0.8	■ 135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 180	0.12	0.8	◪ 95	0.11	0.8	◪ 145	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 220	0.12	0.8	◪ 130	0.11	0.8	◪ 205	0.12	0.8	–	–	–	–	–	–	–	–	–
TCMT 110208E-FM2	**T8330**	0.8	■ 155	0.17	0.8	◪ 90	0.15	0.8	■ 145	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 185	0.17	0.8	◪ 100	0.15	0.8	◪ 150	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 225	0.17	0.8	◪ 135	0.15	0.8	◪ 210	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 195	0.17	0.8	◪ 115	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
TCMT 16T308E-FM2	**T7325**	0.8	◪ 170	0.20	1.0	◪ 130	0.18	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 145	0.20	1.0	◪ 85	0.18	1.0	■ 135	0.20	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 170	0.20	1.0	◪ 90	0.18	1.0	◪ 135	0.20	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 205	0.20	1.0	◪ 120	0.18	1.0	◪ 190	0.20	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 175	0.20	1.0	◪ 105	0.18	1.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
RF geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TCMT 16T308E-RF	**T9325**	0.8	■ 175	0.20	1.5	◪ 105	0.18	1.5	◪ 165	0.20	1.5	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TCMT 16T308E-RM	**T5305**	0.8	◪ 265	0.27	1.9	–	–	–	■ 250	0.27	1.9	–	–	–	–	–	–	◪ 50	0.15	1.0
	T5315	0.8	◪ 235	0.27	1.9	–	–	–	■ 220	0.27	1.9	–	–	–	–	–	–	◪ 45	0.15	1.0
	T7335	0.8	◪ 155	0.27	1.9	■ 120	0.24	1.9	–	–	–	–	–	–	◪ 50	0.19	1.5	–	–	–
	T8330	0.8	■ 145	0.27	1.9	■ 85	0.24	1.9	■ 135	0.27	1.9	–	–	–	◪ 35	0.19	1.5	◪ 25	0.15	1.0
	T8430	0.8	■ 165	0.27	1.9	■ 90	0.24	1.9	◪ 135	0.27	1.9	–	–	–	◪ 35	0.19	1.5	◪ 25	0.15	1.0
	T9315	0.8	■ 215	0.27	1.9	–	–	–	◪ 200	0.27	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9325	0.8	■ 195	0.27	1.9	■ 115	0.24	1.9	◪ 185	0.27	1.9	–	–	–	◪ 40	0.19	1.5	–	–	–

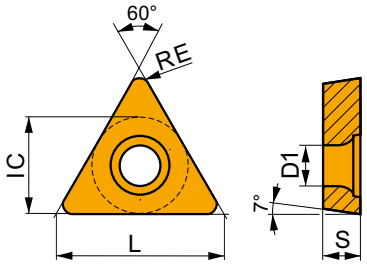
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TCMT 16T312E-RM	**T5305**	1.2	280	0.27	1.9	–	–	–	265	0.27	1.9	–	–	–	–	–	–	55	0.15	1.0
	T5315	1.2	250	0.27	1.9	–	–	–	235	0.27	1.9	–	–	–	–	–	–	50	0.15	1.0
	T8330	1.2	150	0.27	1.9	90	0.24	1.9	140	0.27	1.9	–	–	–	35	0.19	1.5	30	0.15	1.0
	T8430	1.2	170	0.27	1.9	90	0.24	1.9	135	0.27	1.9	–	–	–	35	0.19	1.5	25	0.15	1.0
	T9315	1.2	225	0.27	1.9	–	–	–	210	0.27	1.9	–	–	–	–	–	–	45	0.15	1.0
	T9325	1.2	205	0.27	1.9	120	0.24	1.9	190	0.27	1.9	–	–	–	45	0.19	1.5	–	–	–
																				
RM3 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TCMT 16T304E-RM3	**T6310**	0.4	110	0.25	2.0	75	0.25	2.0	85	0.25	2.0	–	–	–	–	–	–	20	0.15	1.0
	T7325	0.4	125	0.25	2.0	95	0.25	2.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	110	0.25	2.0	65	0.25	2.0	100	0.25	2.0	–	–	–	–	–	–	20	0.15	1.0
	T8430	0.4	120	0.25	2.0	65	0.25	2.0	95	0.25	2.0	–	–	–	–	–	–	20	0.15	1.0
	T9315	0.4	165	0.25	2.0	–	–	–	155	0.25	2.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.4	145	0.25	2.0	85	0.25	2.0	135	0.25	2.0	–	–	–	–	–	–	–	–	–
	T9335	0.4	125	0.25	2.0	75	0.25	2.0	–	–	–	–	–	–	–	–	–	–	–	–
TCMT 16T308E-RM3	**T6310**	0.8	125	0.27	2.0	90	0.27	2.0	100	0.27	2.0	–	–	–	–	–	–	25	0.15	1.0
	T7325	0.8	145	0.27	2.0	110	0.27	2.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	125	0.27	2.0	75	0.27	2.0	115	0.27	2.0	–	–	–	–	–	–	25	0.15	1.0
	T8430	0.8	135	0.27	2.0	75	0.27	2.0	110	0.27	2.0	–	–	–	–	–	–	20	0.15	1.0
	T9315	0.8	185	0.27	2.0	–	–	–	175	0.27	2.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	170	0.27	2.0	100	0.27	2.0	160	0.27	2.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	145	0.27	2.0	85	0.27	2.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																				
TCMT 110204E-UR	**T7325**	0.4	135	0.19	0.8	105	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	135	0.12	0.8	80	0.11	0.8	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	235	0.12	0.8	–	–	–	220	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	175	0.18	0.8	105	0.16	0.8	165	0.18	0.8	–	–	–	–	–	–	–	–	–
TCMT 16T304E-UR	**T7325**	0.4	135	0.19	0.8	105	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	135	0.12	0.8	80	0.11	0.8	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	235	0.12	0.8	–	–	–	220	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	175	0.18	0.8	105	0.16	0.8	165	0.18	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.4	225	0.12	0.8	135	0.11	0.8	–	–	–	–	–	–	–	–	–	–	–	–
TCMT 16T308E-UR	**T5315**	0.8	245	0.17	0.8	–	–	–	230	0.17	0.8	–	–	–	–	–	–	–	–	–
	T7325	0.8	170	0.17	0.8	130	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	150	0.17	0.8	90	0.15	0.8	140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	175	0.17	0.8	95	0.15	0.8	140	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	240	0.17	0.8	–	–	–	225	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	215	0.17	0.8	125	0.15	0.8	200	0.17	0.8	–	–	–	–	–	–	–	–	–

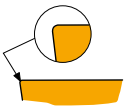
TCMW

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1102	6.350	2.80	11.00	2.38
16T3	9.525	4.40	16.50	3.97



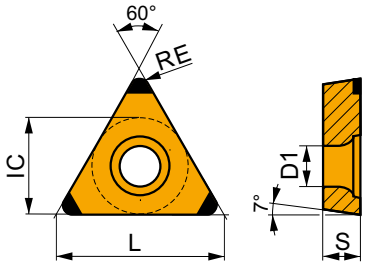
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TCMW 110204	**T5305**	0.4	–	–	–	–	–	–	200	0.10	1.2	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	180	0.10	1.2	–	–	–	–	–	–	35	0.15	1.0
TCMW 16T304	**T5305**	0.4	–	–	–	–	–	–	195	0.10	1.5	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	175	0.10	1.5	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	85	0.10	1.5	–	–	–	–	–	–	20	0.15	1.0
TCMW 16T308	**T5305**	0.8	–	–	–	–	–	–	190	0.18	1.5	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	165	0.18	1.5	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	85	0.18	1.5	–	–	–	–	–	–	20	0.15	1.0

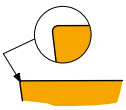
TCGW CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1102	6.350	2.90	11.00	2.38



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 			HSC E																	
			For finish machining, and continuous cuts.																	
TCGW 110204E-C	**TB310**	0.4	–	–	–	–	–	–	390	0.10	0.4	–	–	–	100	0.07	0.3	80	0.15	1.0
 			HSC S																	
			For finish machining, and continuous cuts.																	
TCGW 110204S01020C	**TB310**	0.4	–	–	–	–	–	–	390	0.10	0.4	–	–	–	100	0.07	0.3	80	0.15	1.0
TCGW 110208S01020C	**TB310**	0.8	–	–	–	–	–	–	400	0.15	0.6	–	–	–	105	0.11	0.5	85	0.15	1.0

STFC(RL) EXT

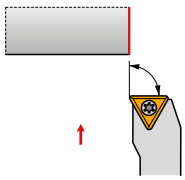
P M K N S H

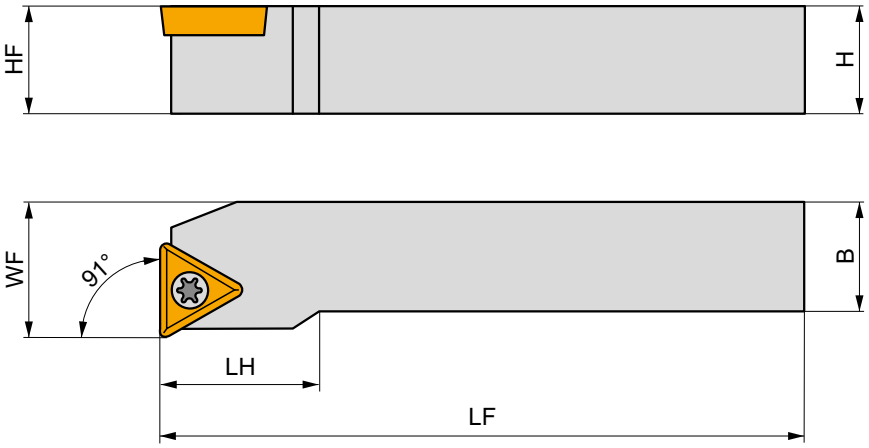
PRAMET

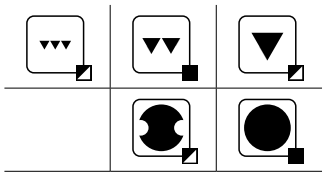
S

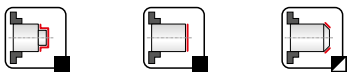
Ext. Screw Lock Tool Holder, 91° (Face Turning) Cutting Angle for TC.. Insert

External Right/Left hand tool holder for screw type positive TC.. 11 up to 16 inserts. Suited for external face turning with shoulder and chamfer turning. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	STFCR 1616 H 11	16	16	16	20	100	18	0	0	0.20	GI056	S01
R	STFCR 2020 K 16-M-A	20	20	20	25	125	25	0	0	0.40	GI016	ST10
R	STFCR 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.76	GI016	ST10
L	STFCL 1616 H 11	16	16	16	20	100	18	0	0	0.22	GI056	S01
L	STFCL 2020 K 16-M-A	20	20	20	25	125	25	0	0	0.40	GI016	ST10
L	STFCL 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.75	GI016	ST10

GI016	TC.. 16T3..
GI056	TC.. 1102..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
ST10	US 3510-T15P	3.0	M 3.5	10.6	STN 160308	MS 3510	FLAG T15P	HXK 3.5

STFC(RL)-A EXT

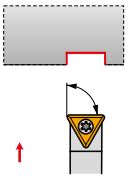
P M K N S H

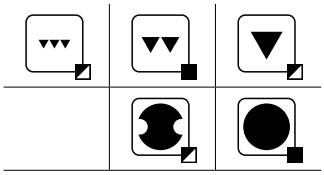
PRAMET

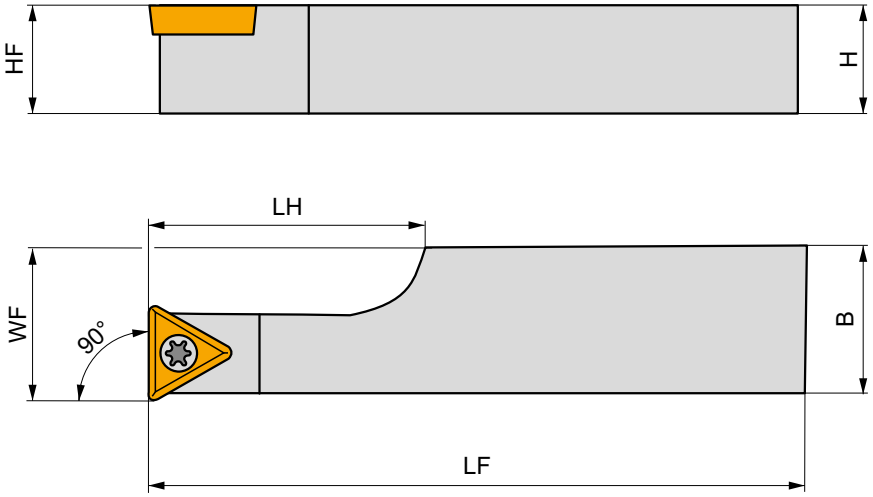
S

Ext. Screw Lock Tool Holder, 90° (Face Turning) Cutting Angle for TC.. Insert

External Right/Left hand tool holder for screw type positive TC.. 11 inserts. Suited for left and right-sided external face turning with shoulder and chamfer turning. Available with shank size 20x20 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	STFCR 2020 K 11-A	20	20	20	25	125	21.3	0	0	0.52	GI056	ST21
L	STFCL 2020 K 11-A	20	20	20	25	125	21.3	0	0	0.36	GI056	ST21

GI056	TC.. 1102..

ST21	5513 020-03	0.8	M 2.5	6.5	PT-8001

STJC(RL) EXT

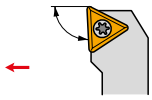
P M K N S H

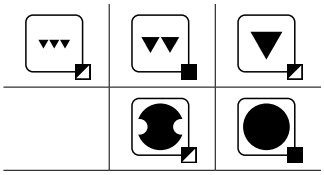
PRAMET

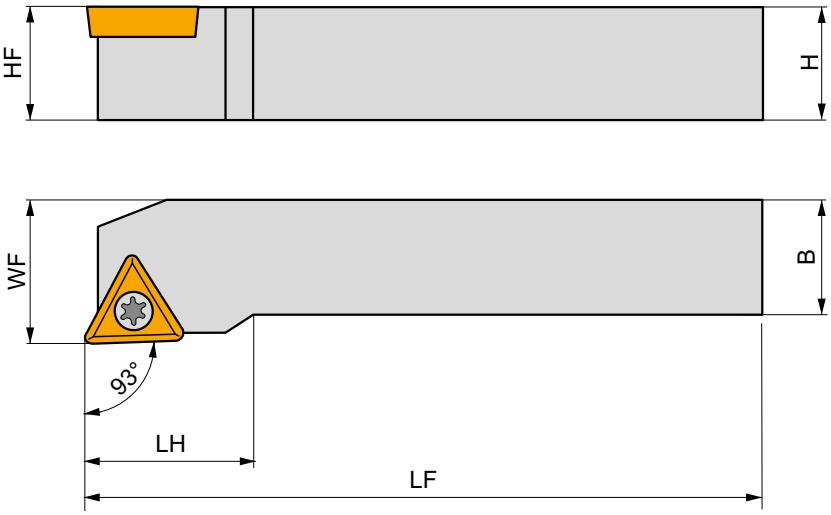
S

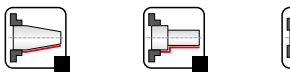
External Screw Lock Tool Holder with 93° Cutting Angle for TC.. Insert

External Right/Left hand tool holder for screw type positive TC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper and chamfer turning. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**STJCR 1616 H 11**	16	16	16	20	100	18	0	0	0.23	GI056	S01
	STJCR 2020 K 16-M-A	20	20	20	25	125	25	0	0	0.44	GI016	ST10
	STJCR 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.76	GI016	ST10
L	**STJCL 1616 H 11**	16	16	16	20	100	18	0	0	0.22	GI056	S01
	STJCL 2020 K 16-M-A	20	20	20	25	125	25	0	0	0.43	GI016	ST10
	STJCL 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.75	GI016	ST10

GI016	TC.. 16T3..
GI056	TC.. 1102..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
ST10	US 3510-T15P	3.0	M 3.5	10.6	STN 160308	MS 3510	FLAG T15P	HXK 3.5

STFC(RL) INT

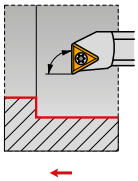
P M K N S H

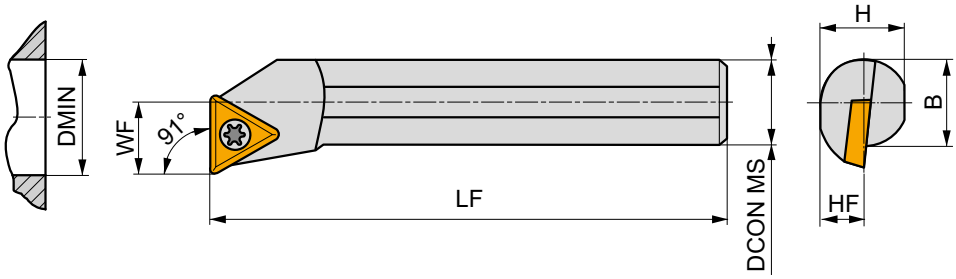
PRAMET

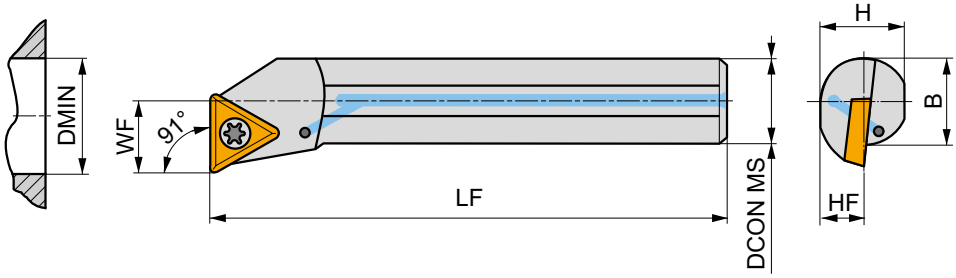
S

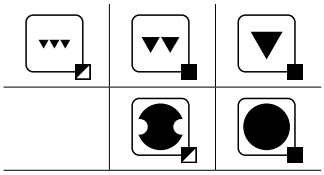
Internal Screw Lock Boring Bar with 91° Cutting Angle for TC.. Insert

Internal Right/Left hand boring bar, through coolant available, 91° cutting angle for screw type TC.. 06 up to 16 inserts. Minimum internal turning diameter Ø8.5 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Ø6 to Ø32 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A06F-STFCR 06	6	8.5	4.5	5	–	80	-12	0	✓	0.03	GI217	ST12
	A08H-STFCR 06	8	11	5.9	7	–	100	-10	0	✓	0.04	GI217	ST13
	A10K-STFCR 09	10	13	7	9	–	125	-9	0	✓	0.06	GI218	ST14
	A12M-STFCR 09	12	16	9	11	–	150	-6.5	0	✓	0.12	GI218	ST14
	S10H-STFCR 11	10	13	7	9	9.5	100	-10	0	–	0.08	GI056	S02
	A12M-STFCR 11	12	16	9	11	11.5	150	-10	0	✓	0.14	GI056	S01
	S12K-STFCR 11	12	16	9	11	11.5	125	-7	0	–	0.13	GI056	S01
	A16R-STFCR 11	16	20	11	14.5	15	200	-7	0	✓	0.27	GI056	S01
	S16M-STFCR 11	16	20	11	14.5	15	150	-7	0	–	0.24	GI056	S01
	A20S-STFCR 11	20	25	13	18	18.5	250	-7	0	✓	0.54	GI056	S01
	S20Q-STFCR 11	20	25	13	18	18.5	180	-7	0	–	0.40	GI056	S01
	A25R-STFCR 16	25	32	17	23	23	200	-3	0	✓	0.67	GI016	S08
	S25T-STFCR 16	25	32	17	23	23	300	-3	0	–	1.15	GI016	S08
	A32S-STFCR 16	32	40	22	30	30	250	-10	0	✓	1.36	GI016	ST10
	S32U-STFCR 16-A	32	40	22	30	30	350	-10	0	–	2.10	GI016	ST10
L	A06F-STFCL 06	6	8.5	4.5	5	–	80	-12	0	✓	0.03	GI217	ST12
	A08H-STFCL 06	8	11	5.9	7	–	100	-10	0	✓	0.05	GI217	ST13
	A10K-STFCL 09	10	13	7	9	–	125	-9	0	✓	0.06	GI218	ST14
	A12M-STFCL 09	12	16	9	11	–	150	-6.5	0	✓	0.03	GI218	ST14
	S10H-STFCL 11	10	13	7	9	9.5	100	-10	0	–	0.06	GI056	S02
	A12M-STFCL 11	12	16	9	11	11.5	150	-10	0	✓	0.12	GI056	S01
	S12K-STFCL 11	12	16	9	11	11.5	125	-7	0	–	0.12	GI056	S01
	A16R-STFCL 11	16	20	11	14.5	15	200	-7	0	✓	0.00	GI056	S01
	S16M-STFCL 11	16	20	11	14.5	15	150	-7	0	–	0.25	GI056	S01
	A20S-STFCL 11	20	25	13	18	18.5	250	-7	0	✓	0.00	GI056	S01
	S20Q-STFCL 11	20	25	13	18	18.5	180	-7	0	–	0.42	GI056	S01
	A25R-STFCL 16	25	32	17	23	23	200	-3	0	✓	0.00	GI016	S08

	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
L	**S25T-STFCL 16**	25	32	17	23	23	300	-3	0	–	1.15	GI016	S08
	A32S-STFCL 16	32	40	22	30	30	250	-10	0	✓	1.36	GI016	ST10
	S32U-STFCL 16-A	32	40	22	30	30	350	-10	0	–	2.06	GI016	ST10

GI016	TC.. 16T3..
GI056	TC.. 1102..
GI217	TC.. 06T1..
GI218	TC.. 0902..

		Nm							
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–	–
S02	US 2505-T07P	0.9	M 2.5	5.2	–	–	FLAG T07P	–	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	–
ST10	US 3510-T15P	3.0	M 3.5	10.6	STN 160308	MS 3510	FLAG T15P	HXK 3.5	–
ST12	5513 020-28	0.6	M 2	4.2	–	–	–	–	PT-8000
ST13	5513 020-27	0.6	M 2	4.9	–	–	–	–	PT-8000
ST14	5513 020-05	0.8	M 2.2	6.4	–	–	–	–	PT-8001

STFC(RL)-E INT

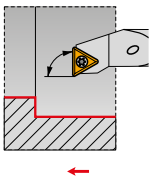
P M K N S H

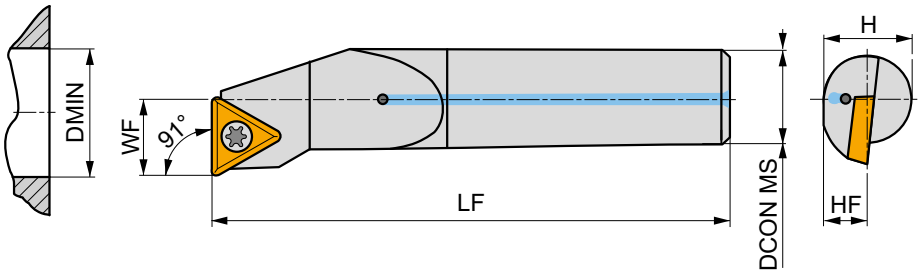
PRAMET

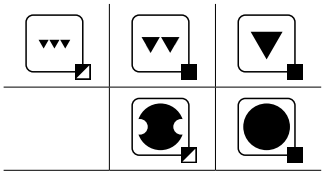
S

Internal Carbide Screw Lock Boring Bar with 91° Cutting Angle for TC.. Insert

Internal Right/Left hand carbide boring bar, through coolant, with 91° cutting angle for screw type TC.. 06 up to 11 inserts. Minimum internal turning diameter Ø8.5 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø6 up to Ø16 mm. For tool overhang >3xD.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	E06H-STFCR 06-R	6	8.5	4.5	6	3	100	-10	0	✓	0.05	GI217	ST22
	E08K-STFCR 06-R	8	11	5.9	8	4	125	-10	0	✓	0.09	GI217	ST23
	E10M-STFCR 09-R	10	13	7	10	5	150	-8	0	✓	0.15	GI218	ST24
	E12Q-STFCR 09-R	12	16	9	12	6	180	-6	0	✓	0.26	GI218	ST24
	E16R-STFCR 11-R	16	20	11	16	8	200	-5	0	✓	0.48	GI056	ST21
L	E06H-STFCL 06-R	6	8.5	4.5	6	3	100	-10	0	✓	0.05	GI217	ST22
	E08K-STFCL 06-R	8	11	5.9	8	4	125	-10	0	✓	0.09	GI217	ST23
	E10M-STFCL 09-R	10	13	7	10	5	150	-8	0	✓	0.15	GI218	ST24
	E12Q-STFCL 09-R	12	16	9	12	6	180	-6	0	✓	0.26	GI218	ST24
	E16R-STFCL 11-R	16	20	11	16	8	200	-5	0	✓	0.48	GI056	ST21

GI056	TC.. 1102..
GI217	TC.. 06T1..
GI218	TC.. 0902..

		Nm			
ST21	5513 020-03	0.8	M 2.5	6.5	PT-8001
ST22	5513 020-28	0.6	M 2	4.2	PT-8000
ST23	5513 020-27	0.6	M 2	4.9	PT-8000
ST24	5513 020-05	0.8	M 2.2	6.4	PT-8001

TP

09/ 11/ 16

CARBIDE INSERTS

TPGX

162

TPMR

163

TPUN

164

CER INSERTS

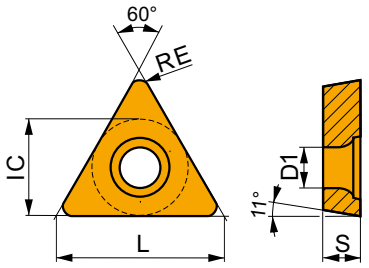
TPGN CER

164

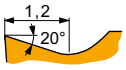
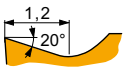
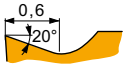
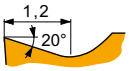
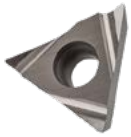
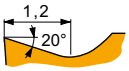
TPGX

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0902	5.560	2.50	9.60	2.38
1102	6.350	2.80	11.00	2.38
16T3	9.525	4.40	16.50	3.97



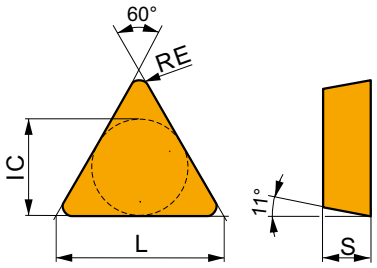
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			F																	
			FR-JQ geometry with positive right-handed design for fine-finish machining, and continuous cuts.																	
TPGX 110204FR-JQ	**TT010**	0.4	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			F																	
			FL-JQ geometry with positive left-handed design for fine-finish machining, continuous cuts.																	
TPGX 090204FL-JQ	**TT010**	0.4	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
TPGX 110204FL-JQ	**TT010**	0.4	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			F																	
			FL-JR geometry with positive left-handed design for fine-finish machining, and continuous cuts.																	
TPGX 16T304FL-JR	**TT010**	0.4	■ 295	0.06	0.5	◪ 175	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			F																	
			FR-JZ geometry with positive right-handed design for fine-finish machining, and continuous cuts.																	
TPGX 090202FR-JZ	**TT010**	0.2	■ 280	0.06	0.5	◪ 165	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
			F																	
			FL-JZ geometry with positive left-handed design for fine-finish machining, and continuous cuts.																	
TPGX 090202FL-JZ	**TT010**	0.2	■ 280	0.06	0.5	◪ 165	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–

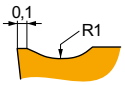
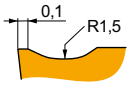
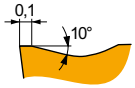
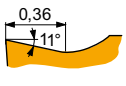
TPMR

PRAMET

	IC [mm]	L [mm]	S [mm]
1103	6.350	11.00	3.18
1603	9.525	16.50	3.18



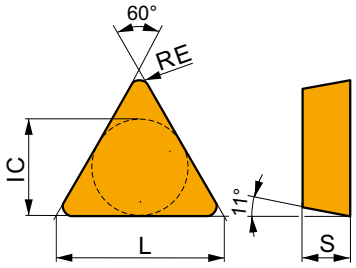
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																					
			Geometry 46 for fine to finish machining, and continuous to interrupted cuts.																		
TPMR 110304E-46	**6640**	0.4	■ 140	0.15	1.0	◪ 80	0.14	1.0	■ 130	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 175	0.15	1.0	◪ 105	0.15	1.0	◪ 165	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 150	0.15	1.0	◪ 90	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
TPMR 110308E-46	**6640**	0.8	■ 170	0.15	1.0	◪ 100	0.14	1.0	■ 160	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 205	0.15	1.0	◪ 120	0.15	1.0	◪ 190	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 180	0.15	1.0	◪ 105	0.15	1.0	–	–	–	–	–	–	–	–	–	–	–	–
																					
			Geometry 47 for finish to semi-rough machining, and continuous to interrupted cuts.																		
TPMR 160304E-47	**6640**	0.4	■ 120	0.20	1.5	◪ 70	0.18	1.5	■ 110	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 150	0.20	1.5	◪ 90	0.18	1.5	◪ 140	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 125	0.20	1.5	◪ 75	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
TPMR 160308E-47	**6640**	0.8	■ 140	0.20	1.5	◪ 80	0.18	1.5	■ 130	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 175	0.20	1.5	◪ 105	0.18	1.5	◪ 165	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 150	0.20	1.5	◪ 90	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
TPMR 160312E-47	**T9325**	1.2	■ 185	0.20	1.5	◪ 110	0.18	1.5	◪ 175	0.20	1.5	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 160	0.20	1.5	◪ 95	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
																					
			Geometry 61 for finish machining with moderate feeds and depths of cut, and continuous to interrupted cuts.																		
TPMR 160308E-61	**T9325**	0.8	■ 135	0.35	1.8	◪ 80	0.32	1.8	◪ 125	0.35	1.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 120	0.35	1.8	◪ 70	0.32	1.8	–	–	–	–	–	–	–	–	–	–	–	–
																					
			PF2 geometry for fine to finish machining, and continuous cuts.																		
TPMR 110304-PF2	**TT010**	0.4	■ 255	0.10	0.5	◪ 150	0.10	0.5	–	–	–	–	–	–	–	–	–	–	–	–
TPMR 160304-PF2	**TT010**	0.4	■ 255	0.10	0.5	◪ 150	0.10	0.5	–	–	–	–	–	–	–	–	–	–	–	–

TPUN

PRAMET

	IC [mm]	L [mm]	S [mm]
1103	6.350	11.00	3.18
1603	9.525	16.50	3.18
2204	12.700	22.00	4.76
2706	15.875	27.50	6.35
3306	19.050	33.00	6.35



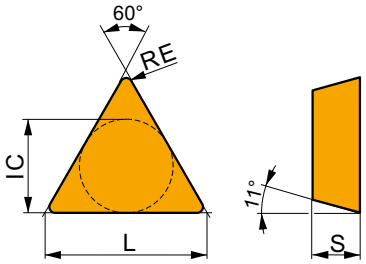
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TPUN 110304	**6640**	0.4	135	0.10	1.2	–	–	–	125	0.10	1.2	–	–	–	–	–	–	–	–	–
TPUN 110308	**6640**	0.8	125	0.18	1.2	–	–	–	115	0.18	1.2	–	–	–	–	–	–	–	–	–
TPUN 160304	**6640**	0.4	135	0.10	1.5	–	–	–	125	0.10	1.5	–	–	–	–	–	–	–	–	–
TPUN 160308	**6640**	0.8	125	0.18	1.5	–	–	–	115	0.18	1.5	–	–	–	–	–	–	–	–	–
TPUN 160312	**6640**	1.2	125	0.20	1.5	–	–	–	115	0.20	1.5	–	–	–	–	–	–	–	–	–
TPUN 220408	**6640**	0.8	120	0.18	2.0	–	–	–	110	0.18	2.0	–	–	–	–	–	–	–	–	–
TPUN 220412	**6640**	1.2	120	0.20	2.0	–	–	–	110	0.20	2.0	–	–	–	–	–	–	–	–	–
			S																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TPUN 270616S	**6640**	1.6	60	0.30	7.0	–	–	–	55	0.30	7.0	–	–	–	–	–	–	–	–	–
TPUN 330620S	**6640**	2.0	65	0.30	5.0	–	–	–	60	0.30	5.0	–	–	–	–	–	–	–	–	–

TPGN CER

PRAMET

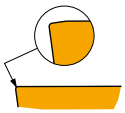
	IC [mm]	L [mm]	S [mm]
1103	6.350	11.00	3.18
1603	9.525	16.50	3.18



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			HSC		T															
			For machining with high speeds and continuous cuts.																	
TPGN 110304 T01020	**TC100**	0.4	–	–	–	–	–	–	460	0.10	1.5	–	–	–	–	–	–	–	–	–
TPGN 110308 T01020	**TC100**	0.8	–	–	–	–	–	–	425	0.20	1.5	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			HSC		T															
			For machining with high speeds and continuous cuts.																	
TPGN 160304 T01020	**TC100**	0.4	–	–	–	–	–	–	460	0.10	1.5	–	–	–	–	–	–	–	–	–
TPGN 160308 T01020	**TC100**	0.8	–	–	–	–	–	–	425	0.20	1.5	–	–	–	–	–	–	–	–	–
TPGN 160312 T01020	**TC100**	1.2	–	–	–	–	–	–	450	0.20	1.5	–	–	–	–	–	–	–	–	–

VB

CARBIDE INSERTS

VBMT

168

CBN INSERTS

VBGW CBN

171

MATCH THE RIGHT SIZE (example)

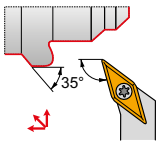
Insert	Tool Holder
VBMT 160408E-FM	SVHCR 2020 K 16-M-A

ISO TURNING – EXTERNAL

SVHB(C)(RL) EXT

107°30´

VB, VC..: 11, 16



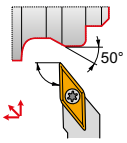
16×16 / 25×25

172 | 168 – 171, 186 – 192

SVJB(C)(RL) EXT

93°

VB, VC..: 11, 13, 16



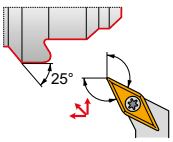
12×12 / 32×25

173 | 168 – 171, 186 – 192

SVPB(C)(RL) EXT

117°30´

VB, VC..: 11, 16



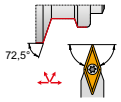
16×16 / 32×25

174 | 168 – 171, 186 – 192

SVVB(C)N EXT

72°30´

VB, VC..: 11, 13, 16



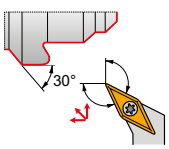
12×12 / 32×25

175 | 168 – 171, 186 – 192

SVXB(C)(RL) EXT

98°

VB, VC..: 11, 13, 16



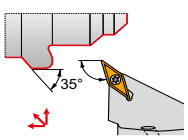
12×12 / 32×25

176 | 168 – 171, 186 – 192

C.-SVHB(RL) EXT

107°30´

VB, VC..: 16



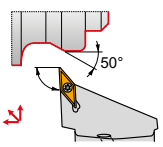
C4 / C6

177 | 168 – 171, 186 – 192

C.-SVJB(RL) EXT

93°

VB, VC..: 11, 16



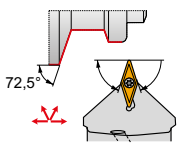
C3 / C6

178 | 168 – 171, 186 – 192

C.-SVVBN EXT

72°30´

VB, VC..: 16



C4 / C6

179 | 168 – 171, 186 – 192

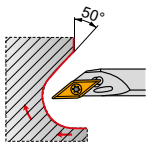
VB

ISO TURNING – INTERNAL

SVJB(RL) INT

93°

VB, VC..



11

25 / 32

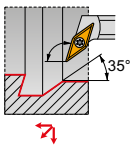
180

168 – 171
186 – 192

SVQB(C)(RL) INT

107°30´

VB, VC..



11
13
16

20 / 50

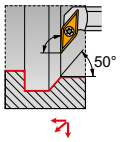
181

168 – 171
186 – 192

SVUB(C)(RL) INT

93°

VB, VC..



11
13
16

20 / 50

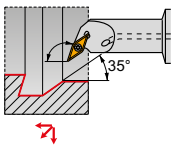
182

168 – 171
186 – 192

C.-SVQB(C)(RL) INT

108°

VB, VC..



16

33

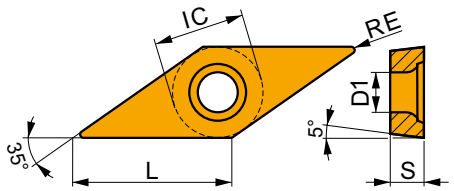
183

168 – 171
186 – 192

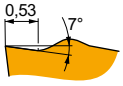
VBMT

PRAMET

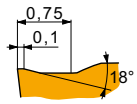
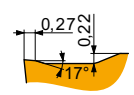
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1102	6.350	2.80	11.10	2.38
1103	6.350	2.80	11.10	3.18
1604	9.525	4.40	16.60	4.76



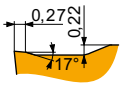
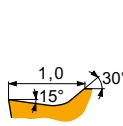
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																	
VBMT 160404E-FF2	**T7325**	0.4	145	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	125	0.12	0.8	–	–	–	115	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	150	0.12	0.8	–	–	–	125	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	215	0.12	0.8	–	–	–	200	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.12	0.8	–	–	–	180	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	160	0.12	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
VBMT 110302E-FM	**T7325**	0.2	160	0.10	0.8	120	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.2	145	0.10	0.8	85	0.09	0.8	135	0.10	0.8	435	0.12	0.8	–	–	–	–	–	–
	T8330	0.2	135	0.10	0.8	80	0.09	0.8	125	0.10	0.8	405	0.12	0.8	–	–	–	–	–	–
	T8430	0.2	170	0.10	0.8	90	0.09	0.8	135	0.10	0.8	465	0.12	0.8	–	–	–	–	–	–
	T9325	0.2	210	0.10	0.8	125	0.09	0.8	195	0.10	0.8	–	–	–	–	–	–	–	–	–
VBMT 110304E-FM	**T7325**	0.4	140	0.19	0.8	105	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	135	0.19	0.8	105	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	145	0.12	0.8	85	0.11	0.8	135	0.12	0.8	435	0.14	0.8	–	–	–	–	–	–
	T8330	0.4	140	0.12	0.8	80	0.11	0.8	130	0.12	0.8	420	0.14	0.8	–	–	–	–	–	–
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	465	0.14	0.8	–	–	–	–	–	–
	T9315	0.4	235	0.12	0.8	–	–	–	220	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	175	0.19	0.8	105	0.17	0.8	165	0.19	0.8	–	–	–	–	–	–	–	–	–
VBMT 110308E-FM	**T7325**	0.8	170	0.17	0.8	130	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	150	0.17	0.8	90	0.15	0.8	140	0.17	0.8	450	0.20	0.8	–	–	–	–	–	–
	T8430	0.8	175	0.17	0.8	95	0.15	0.8	140	0.17	0.8	480	0.20	0.8	–	–	–	–	–	–
	T9315	0.8	240	0.17	0.8	–	–	–	225	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	215	0.17	0.8	125	0.15	0.8	200	0.17	0.8	–	–	–	–	–	–	–	–	–
VBMT 160402E-FM	**T7325**	0.2	150	0.10	1.2	115	0.09	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.10	1.2	75	0.09	1.2	120	0.10	1.2	390	0.12	1.2	–	–	–	–	–	–
	T8430	0.2	165	0.10	1.2	90	0.09	1.2	135	0.10	1.2	450	0.12	1.2	–	–	–	–	–	–
	T9315	0.2	230	0.10	1.2	–	–	–	215	0.10	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.2	205	0.10	1.2	120	0.09	1.2	190	0.10	1.2	–	–	–	–	–	–	–	–	–
VBMT 160404E-FM	**T5315**	0.4	225	0.12	1.2	–	–	–	210	0.12	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.4	130	0.19	1.2	100	0.17	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	130	0.19	1.2	100	0.17	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	140	0.12	1.2	80	0.11	1.2	130	0.12	1.2	420	0.14	1.2	–	–	–	–	–	–
	T8330	0.4	135	0.12	1.2	80	0.11	1.2	125	0.12	1.2	405	0.14	1.2	–	–	–	–	–	–
	T8430	0.4	165	0.12	1.2	90	0.11	1.2	135	0.12	1.2	450	0.14	1.2	–	–	–	–	–	–
	T9315	0.4	225	0.12	1.2	–	–	–	210	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	165	0.19	1.2	95	0.17	1.2	155	0.19	1.2	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
VBMT 160408E-FM	**T5315**	0.8	235	0.17	1.2	–	–	–	220	0.17	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.8	165	0.17	1.2	125	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	160	0.17	1.2	120	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	150	0.17	1.2	90	0.15	1.2	140	0.17	1.2	450	0.20	1.2	–	–	–	–	–	–
	T8330	0.8	145	0.17	1.2	85	0.15	1.2	135	0.17	1.2	435	0.20	1.2	–	–	–	–	–	–
	T8430	0.8	170	0.17	1.2	90	0.15	1.2	135	0.17	1.2	465	0.20	1.2	–	–	–	–	–	–
	T9310	0.8	255	0.17	1.2	–	–	–	240	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	230	0.17	1.2	–	–	–	215	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	205	0.17	1.2	120	0.15	1.2	190	0.17	1.2	–	–	–	–	–	–	–	–	–
VBMT 160412E-FM	**T7325**	1.2	160	0.22	1.2	120	0.22	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	140	0.22	1.2	80	0.22	1.2	130	0.22	1.2	420	0.26	1.2	–	–	–	–	–	–
	T8430	1.2	155	0.22	1.2	85	0.22	1.2	130	0.22	1.2	435	0.26	1.2	–	–	–	–	–	–
	T9315	1.2	215	0.22	1.2	–	–	–	200	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.22	1.2	115	0.22	1.2	185	0.22	1.2	–	–	–	–	–	–	–	–	–
																				
			FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																	
VBMT 160404E-FM2	**T6310**	0.4	120	0.12	1.2	85	0.11	1.2	95	0.12	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.4	140	0.12	1.2	105	0.11	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	125	0.12	1.2	75	0.11	1.2	115	0.12	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	145	0.12	1.2	80	0.11	1.2	120	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	200	0.12	1.2	–	–	–	190	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	185	0.12	1.2	110	0.11	1.2	175	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.4	155	0.12	1.2	90	0.11	1.2	–	–	–	–	–	–	–	–	–	–	–	–
VBMT 160408E-FM2	**T6310**	0.8	125	0.20	1.2	90	0.18	1.2	100	0.20	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.8	145	0.20	1.2	110	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	125	0.20	1.2	75	0.18	1.2	115	0.20	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	140	0.20	1.2	75	0.18	1.2	115	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	195	0.20	1.2	–	–	–	185	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	175	0.20	1.2	105	0.18	1.2	165	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.8	150	0.20	1.2	90	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
VBMT 160412E-FM2	**T8430**	1.2	145	0.22	1.2	80	0.20	1.2	120	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9315	1.2	195	0.22	1.2	–	–	–	185	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	175	0.22	1.2	105	0.20	1.2	165	0.22	1.2	–	–	–	–	–	–	–	–	–
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
VBMT 160404E-RM	**T5305**	0.4	270	0.12	1.2	–	–	–	255	0.12	1.2	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.4	235	0.12	1.2	–	–	–	220	0.12	1.2	–	–	–	–	–	–	45	0.15	1.0
	T7335	0.4	140	0.18	1.2	105	0.16	1.2	–	–	–	–	–	–	45	0.16	1.0	–	–	–
	T8330	0.4	140	0.12	1.2	80	0.11	1.2	130	0.12	1.2	–	–	–	35	0.11	1.0	25	0.15	1.0
	T8430	0.4	170	0.12	1.2	90	0.11	1.2	135	0.12	1.2	–	–	–	35	0.11	1.0	25	0.15	1.0
	T9315	0.4	235	0.12	1.2	–	–	–	220	0.12	1.2	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.4	170	0.20	1.2	100	0.18	1.2	160	0.20	1.2	–	–	–	35	0.18	1.0	–	–	–
VBMT 160408E-RM	**T5305**	0.8	285	0.17	1.2	–	–	–	270	0.17	1.2	–	–	–	–	–	–	55	0.15	1.0
	T5315	0.8	250	0.17	1.2	–	–	–	235	0.17	1.2	–	–	–	–	–	–	50	0.15	1.0
	T7335	0.8	155	0.20	1.2	120	0.18	1.2	–	–	–	–	–	–	50	0.18	1.0	–	–	–
	T8330	0.8	150	0.17	1.2	90	0.15	1.2	140	0.17	1.2	–	–	–	35	0.12	1.0	30	0.15	1.0
	T8430	0.8	175	0.17	1.2	95	0.15	1.2	140	0.17	1.2	–	–	–	35	0.12	1.0	30	0.15	1.0
	T9315	0.8	240	0.17	1.2	–	–	–	225	0.17	1.2	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	200	0.20	1.2	120	0.18	1.2	190	0.20	1.2	–	–	–	45	0.18	1.0	–	–	–

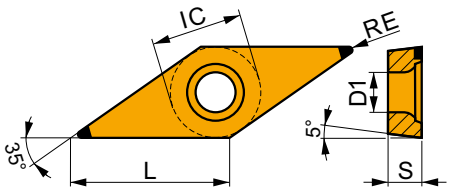
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
VBMT 160412E-RM	**T7335**	1.2	◪ 150	0.27	1.2	■ 115	0.24	1.2		–	–	–	–	–	–	◪ 45	0.19	1.0	–	–	–
	T8330	1.2	■ 140	0.27	1.2	■ 80	0.24	1.2	■ 130	0.27	1.2	–	–	–	◪ 35	0.19	1.0	◪ 25	0.15	1.0
	T8430	1.2	■ 155	0.27	1.2	■ 85	0.24	1.2	◪ 130	0.27	1.2	–	–	–	◪ 30	0.19	1.0	◪ 25	0.15	1.0
	T9315	1.2	■ 210	0.27	1.2	–	–	–	◪ 195	0.27	1.2	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9325	1.2	■ 185	0.27	1.2	■ 110	0.24	1.2	◪ 175	0.27	1.2	–	–	–	◪ 40	0.19	1.0	–	–	–
																				
UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																				
VBMT 110202E-UR	**TT310**	0.2	■ 195	0.10	0.8	◪ 115	0.09	0.8		–	–	–	–	–	–	–	–	–	–	–
VBMT 110204E-UR	**T7325**	0.4	◪ 120	0.19	0.8	◪ 90	0.17	0.8		–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 120	0.12	0.8	◪ 70	0.11	0.8	■ 110	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 145	0.12	0.8	◪ 80	0.11	0.8	◪ 120	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 200	0.12	0.8	–	–	–	◪ 190	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 150	0.19	0.8	◪ 90	0.17	0.8	◪ 140	0.19	0.8	–	–	–	–	–	–	–	–	–
	TT310	0.4	■ 195	0.12	0.8	◪ 115	0.11	0.8		–	–	–	–	–	–	–	–	–	–	–
VBMT 160402E-UR	**T8330**	0.2	■ 115	0.10	1.2	◪ 65	0.09	1.2	■ 105	0.10	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 140	0.10	1.2	◪ 75	0.09	1.2	◪ 115	0.10	1.2	–	–	–	–	–	–	–	–	–
VBMT 160404E-UR	**T5315**	0.4	◪ 195	0.12	1.2	–	–	–	■ 185	0.12	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.4	◪ 115	0.19	1.2	◪ 85	0.17	1.2		–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 115	0.12	1.2	◪ 65	0.11	1.2	■ 105	0.12	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 140	0.12	1.2	◪ 75	0.11	1.2	◪ 115	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9310	0.4	■ 215	0.12	1.2	–	–	–	◪ 200	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 190	0.12	1.2	–	–	–	◪ 180	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 145	0.18	1.2	◪ 85	0.16	1.2	◪ 135	0.18	1.2	–	–	–	–	–	–	–	–	–
	TT310	0.4	■ 185	0.12	1.2	◪ 110	0.11	1.2		–	–	–	–	–	–	–	–	–	–	–
VBMT 160408E-UR	**T5315**	0.8	◪ 205	0.17	1.2	–	–	–	■ 190	0.17	1.2	–	–	–	–	–	–	–	–	–
	T7325	0.8	◪ 140	0.17	1.2	◪ 105	0.15	1.2		–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 125	0.17	1.2	◪ 75	0.15	1.2	■ 115	0.17	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 145	0.17	1.2	◪ 80	0.15	1.2	◪ 120	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9310	0.8	■ 220	0.17	1.2	–	–	–	◪ 205	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 200	0.17	1.2	–	–	–	◪ 190	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 180	0.17	1.2	◪ 105	0.15	1.2	◪ 170	0.17	1.2	–	–	–	–	–	–	–	–	–
	TT310	0.8	■ 200	0.17	1.2	◪ 120	0.15	1.2		–	–	–	–	–	–	–	–	–	–	–
VBMT 160412E-UR	**T7325**	1.2	◪ 135	0.22	1.2	◪ 105	0.20	1.2		–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	■ 120	0.22	1.2	◪ 70	0.20	1.2	■ 110	0.22	1.2	–	–	–	–	–	–	–	–	–
	T8430	1.2	■ 135	0.22	1.2	◪ 75	0.20	1.2	◪ 110	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9310	1.2	■ 205	0.22	1.2	–	–	–	◪ 190	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9315	1.2	■ 185	0.22	1.2	–	–	–	◪ 175	0.22	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 170	0.22	1.2	◪ 100	0.20	1.2	◪ 160	0.22	1.2	–	–	–	–	–	–	–	–	–

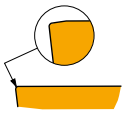
VBGW CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	4.50	16.00	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			 For finish machining and continuous cuts.																	
VBGW 160404S01020B	**TB310**	0.4	–	–	–	–	–	–	◪	340	0.10	0.4	–	–	–	◪	90	0.07	0.3	■	70	0.15	1.0
VBGW 160408S01020B	**TB310**	0.8	–	–	–	–	–	–	◪	350	0.15	0.6	–	–	–	◪	90	0.11	0.5	■	70	0.15	1.0

SVHB(C)(RL) EXT

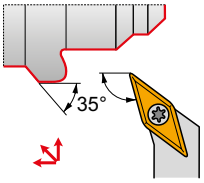
P M K N S H

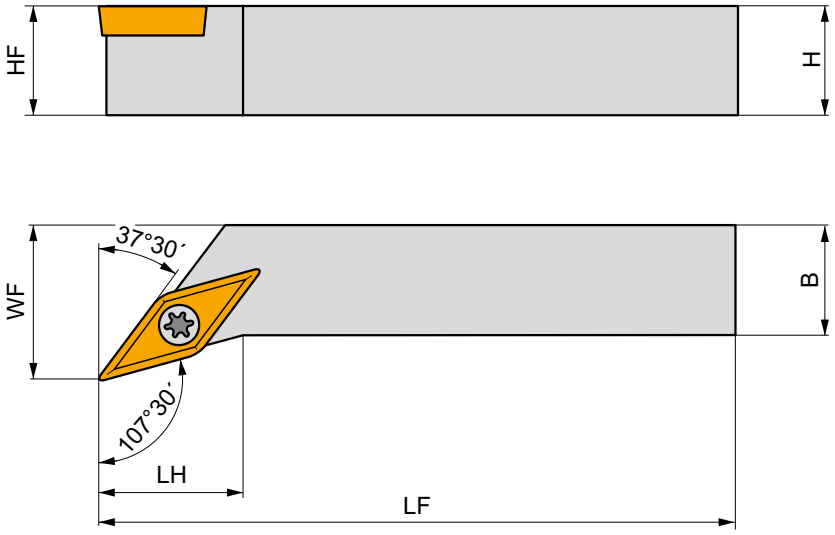
PRAMET

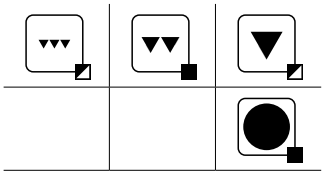
S

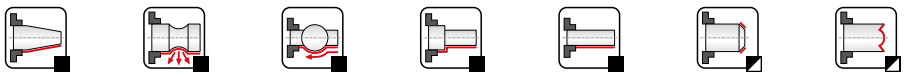
Ext. Screw Lock Tool Holder with 107.5° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 or 16 inserts. Suited for external face and longitudinal turning with shoulder, taper, face and longitudinal copy turning up to 35° and chamfer turning. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**SVHBR 1616 H 11**	16	16	16	20	100	14	0	0	0.21	GI194	S01
	SVHCR 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVHCR 2525 M 16-M-A	25	25	25	32	150	20	0	0	0.68	GI017	SV10
L	**SVHBL 1616 H 11**	16	16	16	20	100	14	0	0	0.19	GI194	S01
	SVHCL 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVHCL 2525 M 16-M-A	25	25	25	32	150	20	0	0	0.07	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5

SVJB(C)(RL) EXT

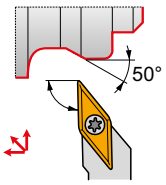
P M K N S H

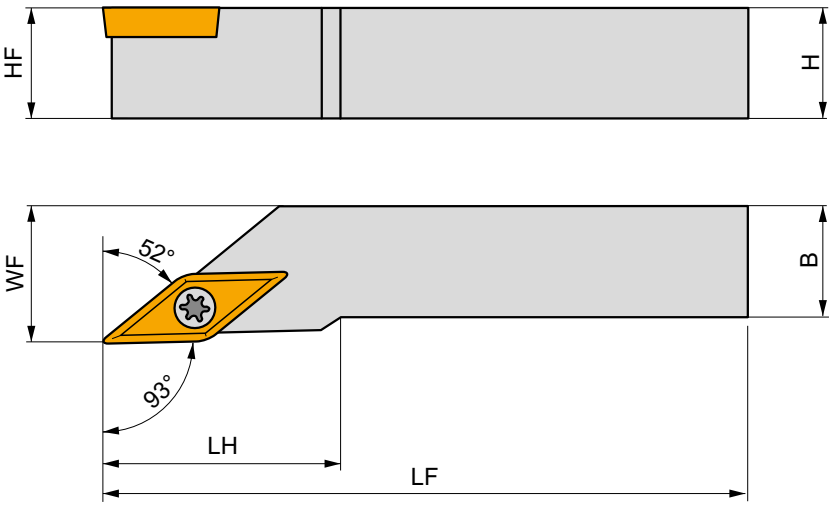
PRAMET

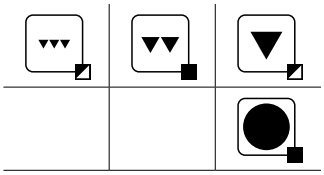
S

External Screw Lock Tool Holder with 93° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 50° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVJBR 1212 F 11	12	12	12	16	80	20	0	0	0.09	GI194	S01
	SVJBR 1616 H 11	16	16	16	20	100	20	0	0	0.20	GI194	S01
	SVJCR 1212 N 13	12	12	12	16	160	27	0	0	0.19	GI211	SV21
	SVJCR 1616 H 13	16	16	16	20	100	30	0	0	0.20	GI211	SV21
	SVJCR 2020 K 13	20	20	20	25	125	30	0	0	0.37	GI211	SV22
	SVJCR 2525 M 13	25	25	25	32	150	30	0	0	0.67	GI211	SV22
	SVJCR 2020 K 16-M-A	20	20	20	25	125	28	0	0	0.35	GI017	SV10
	SVJCR 2525 M 16-M-A	25	25	25	32	150	32	0	0	0.68	GI017	SV10
	SVJCR 3225 P 16-M-A	32	25	32	32	170	32	0	0	0.99	GI017	SV10
L	SVJBL 1212 F 11	12	12	12	16	80	20	0	0	0.09	GI194	S01
	SVJBL 1616 H 11	16	16	16	20	100	20	0	0	0.19	GI194	S01
	SVJCL 1212 N 13	12	12	12	16	160	27	0	0	0.19	GI211	SV21
	SVJCL 1616 H 13	16	16	16	20	100	30	0	0	0.20	GI211	SV21
	SVJCL 2020 K 13	20	20	20	25	125	30	0	0	0.37	GI211	SV22
	SVJCL 2525 M 13	25	25	25	32	150	30	0	0	0.67	GI211	SV22
	SVJCL 2020 K 16-M-A	20	20	20	25	125	28	0	0	0.40	GI017	SV10
	SVJCL 2525 M 16-M-A	25	25	25	32	150	32	0	0	0.70	GI017	SV10
	SVJCL 3225 P 16-M-A	32	25	32	32	170	32	0	0	0.99	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVPB(C)(RL) EXT

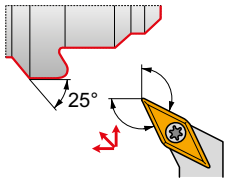
P M K N S H

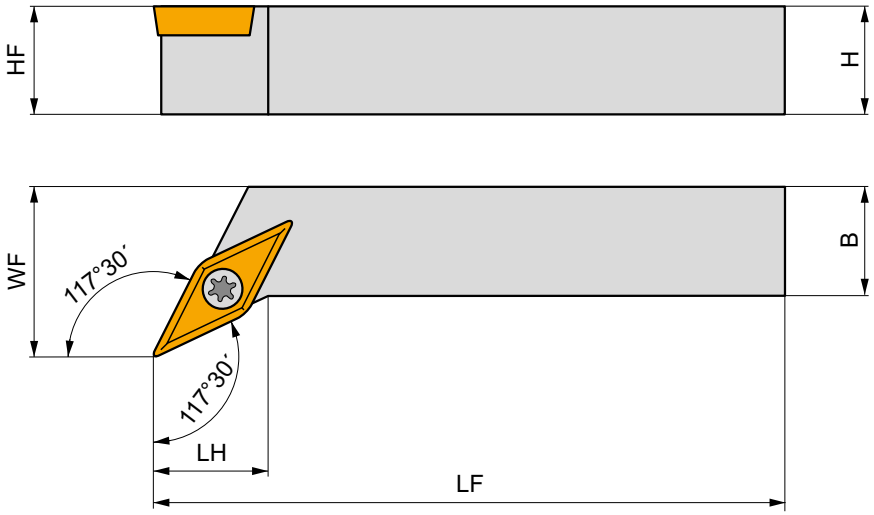
PRAMET

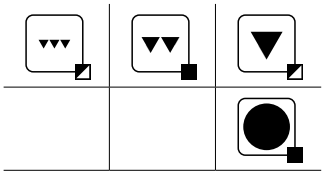
S

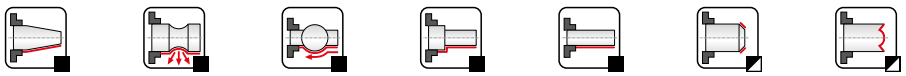
External Screw Lock Tool Holder, 117.5° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 or 16 inserts. Suited for external face and longitudinal turning with shoulder, taper, face copy turning up to 25° and chamfer turning. Available with shank size 16x16 up to 32x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVPBR 1616 H 11	16	16	16	20	100	12	0	0	0.20	GI194	S01
	SVPBR 2020 K 11	20	20	20	25	125	12	0	0	0.41	GI194	S01
	SVPCR 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVPCR 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.75	GI017	SV10
	SVPCR 3225 P 16-M-A	32	25	32	32	170	25	0	0	1.10	GI017	SV10
L	SVPBL 1616 H 11	16	16	16	20	100	12	0	0	0.20	GI194	S01
	SVPBL 2020 K 11	20	20	20	25	125	12	0	0	0.39	GI194	S01
	SVPCL 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.70	GI017	SV10
	SVPCL 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.70	GI017	SV10
	SVPCL 3225 P 16-M-A	32	25	32	32	170	25	0	0	1.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5

SVVB(C)N EXT

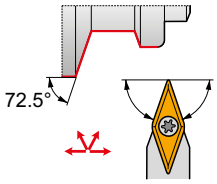
P M K N S H

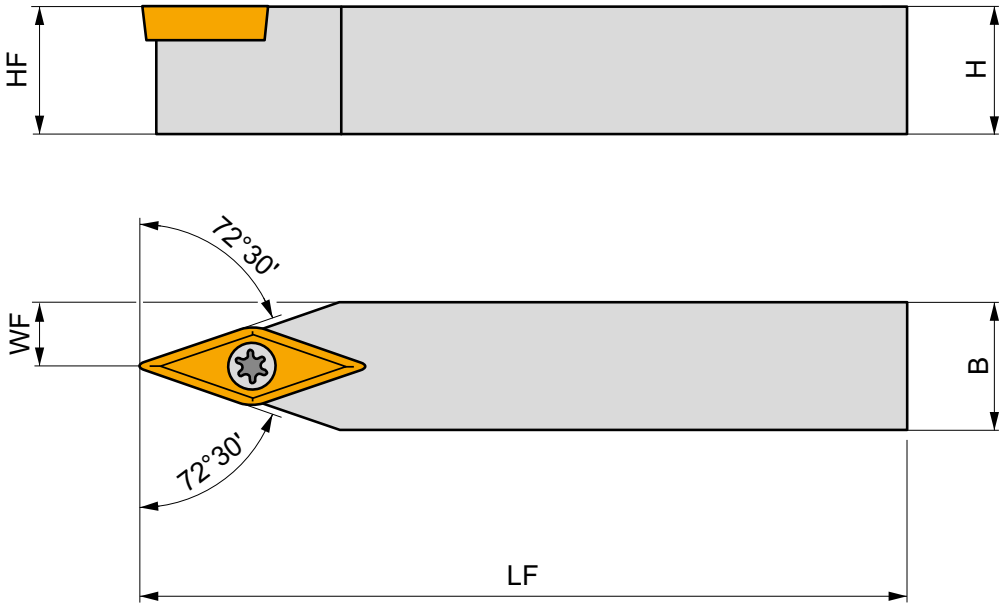
PRAMET

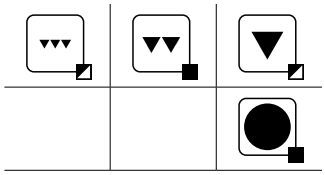
S

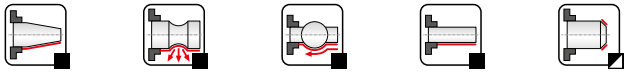
External Screw Lock Tool Holder, 72.5° Cutting Angle for VB/VC.. Inserts

External neutral tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning without shoulder, taper, copy turning up to 72.5° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
N	**SVVBN 1212 F 11**	12	12	12	6	80	–	0	0	0.11	GI194	S01
	SVVBN 1616 H 11	16	16	16	8	100	–	0	0	0.18	GI194	S01
	SVVBN 2020 K 11	20	20	20	10	125	–	0	0	0.38	GI194	S01
	SVVCN 1212 N 13	12	12	12	6	160	–	0	0	0.19	GI211	SV21
	SVVCN 1616 H 13	16	16	16	8	100	–	0	0	0.20	GI211	SV21
	SVVCN 2020 K 13	20	20	20	10	125	–	0	0	0.36	GI211	SV22
	SVVCN 2525 M 13	25	25	25	12.5	150	–	0	0	0.66	GI211	SV22
	SVVCN 2020 K 16-M-A	20	20	20	10	125	–	0	0	0.34	GI017	SV10
	SVVCN 2525 M 16-M-A	25	25	25	12.5	150	–	0	0	0.68	GI017	SV10
	SVVCN 3225 P 16-M-A	32	25	32	12.5	170	–	0	0	0.98	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVXB(C)(RL) EXT

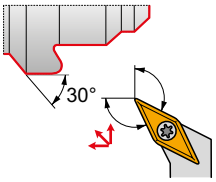
P M K N S H

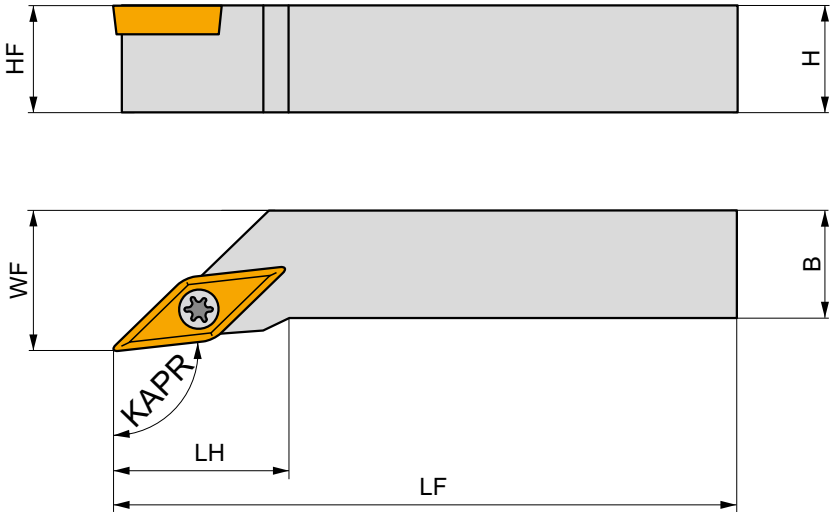
PRAMET

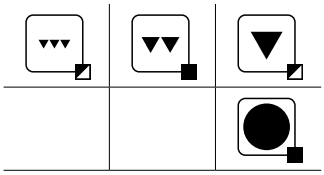
S

External Screw Lock Tool Holder 98/113° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 30° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	KAPR [°]	LAMS [°]	GAMO [°]	kg		
R	SVXBR 1212 F 11	12	12	12	16	80	20	98	0	0	0.09	GI194	SO1
	SVXBR 1616 H 11	16	16	16	20	100	14	98	0	0	0.19	GI194	SO1
	SVXCR 2020 K 13	20	20	20	25	125	12	113	0	0	0.38	GI211	SV22
	SVXCR 2020 K 16-M-A	20	20	20	25	125	28	98	0	0	0.41	GI017	SV10
	SVXCR 2525 M 16-M-A	25	25	25	32	150	32	98	0	0	0.68	GI017	SV10
	SVXCR 3225 P 16-M-A	32	25	32	32	170	32	98	0	0	1.00	GI017	SV10
L	SVXBL 1212 F 11	12	12	12	16	80	20	98	0	0	0.09	GI194	SO1
	SVXBL 1616 H 11	16	16	16	20	100	14	98	0	0	0.19	GI194	SO1
	SVXCL 2020 K 13	20	20	20	25	125	12	113	0	0	0.38	GI211	SV22
	SVXCL 2020 K 16-M-A	20	20	20	25	125	28	98	0	0	0.38	GI017	SV10
	SVXCL 2525 M 16-M-A	25	25	25	32	150	32	98	0	0	0.69	GI017	SV10
	SVXCL 3225 P 16-M-A	32	25	32	32	170	32	98	0	0	0.99	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
SO1	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

C.-SVHB(RL) EXT

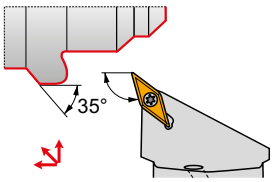
P M K N S H

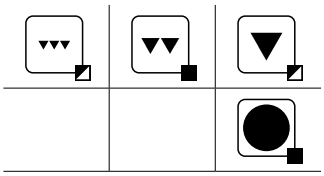
PRAMET

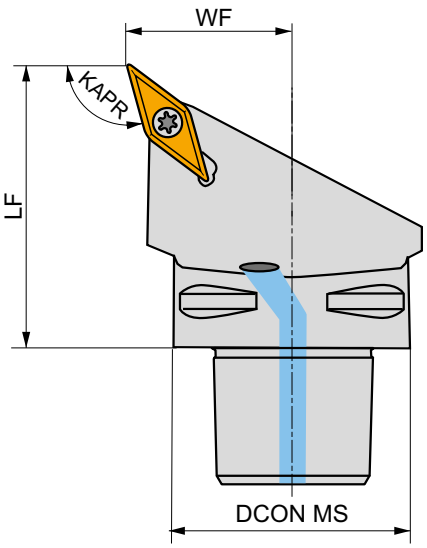
S

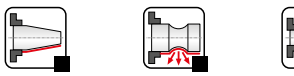
Ext. PSC Quick Change Tool, Screw Lock, 107.5° Cutting Angle, VB/VC.. Inserts

External Right/Left hand tool, through coolant, for screw type positive VB.. 16 and VC.. 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 35° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 up to C6. Body treated for longer tool life.









	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-SVHBR-27050-16	40	27	50	107.5	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVHBR-35060-16	50	35	60	107.5	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVHBR-45065-16	63	45	65	107.5	0	0	✓	1.13	GI017	C-SV16S-2
L	C4-SVHBL-27050-16	40	27	50	107.5	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVHBL-35060-16	50	35	60	107.5	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVHBL-45065-16	63	45	65	107.5	0	0	✓	1.12	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..

		Nm						
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

C.-SVJB(RL) EXT

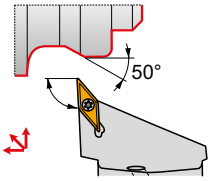
P M K N S H

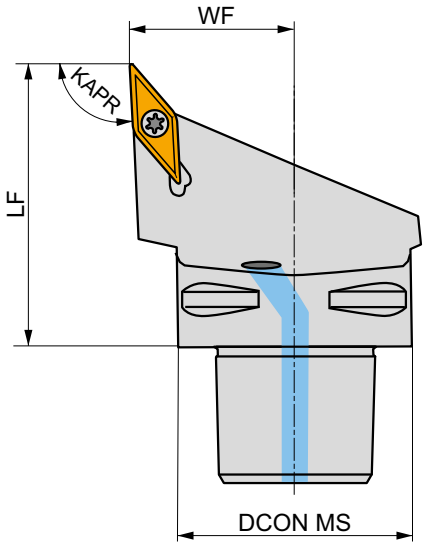
PRAMET

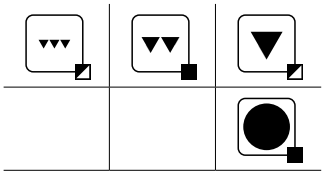
S

Ext. PSC Quick Change Tool, Screw Lock, 93° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool, through coolant, for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 50° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C3 up to C6. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SVJBR-22040-11-B1	32	22	40	93	0	0	✓	0.17	GI194	C-SV11
	C4-SVJBR-27050-11-B1	40	27	50	93	0	0	✓	0.34	GI194	C-SV11
	C4-SVJBR-27050-16	40	27	50	93	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVJBR-35060-16	50	35	60	93	0	0	✓	0.63	GI017	C-SV16S-2
	C6-SVJBR-45065-16	63	45	65	93	0	0	✓	1.11	GI017	C-SV16S-2
L	C4-SVJBL-27050-16	40	27	50	93	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVJBL-35060-16	50	35	60	93	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVJBL-45065-16	63	45	65	93	0	0	✓	1.11	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
C-SV11	US 2003-T07P	0.8	M 2.5	6.5	–	–	FLAG T07P	CN 034-01
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

C.-SVVBN EXT

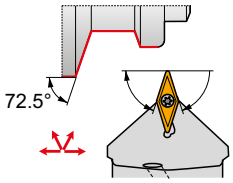
P M K N S H

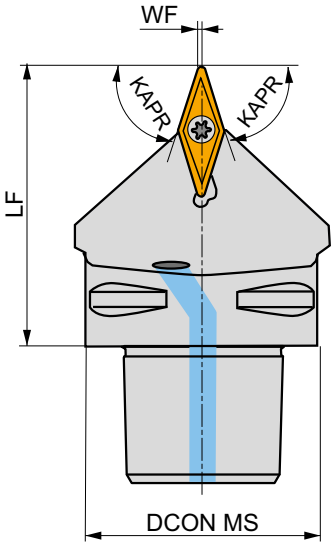
PRAMET

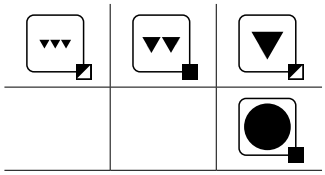
S

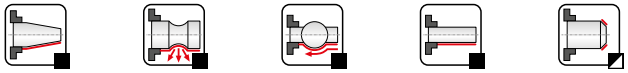
Ext. PSC Quick Change Tool, Screw Lock, 72.5° Cutting Angle, VB/VC.. Inserts

External neutral tool, through coolant, for screw type positive VB.. 16 and VC.. 16 inserts. Suited for external longitudinal turning without shoulder, taper, copy turning up to 72.5° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 up to C6. Body treated for longer tool life.









	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
N	**C4-SVVBN-00050-16**	40	0.6	50	72.5	0	0	✓	0.32	GI017	C-SV16S-1
	C5-SVVBN-00060-16	50	0.6	60	72.5	0	0	✓	0.56	GI017	C-SV16S-2
	C6-SVVBN-00065-16	63	0.6	65	72.5	0	0	✓	0.99	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..

		Nm						
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

SVJB(RL) INT

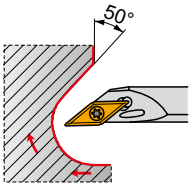
P M K N S H

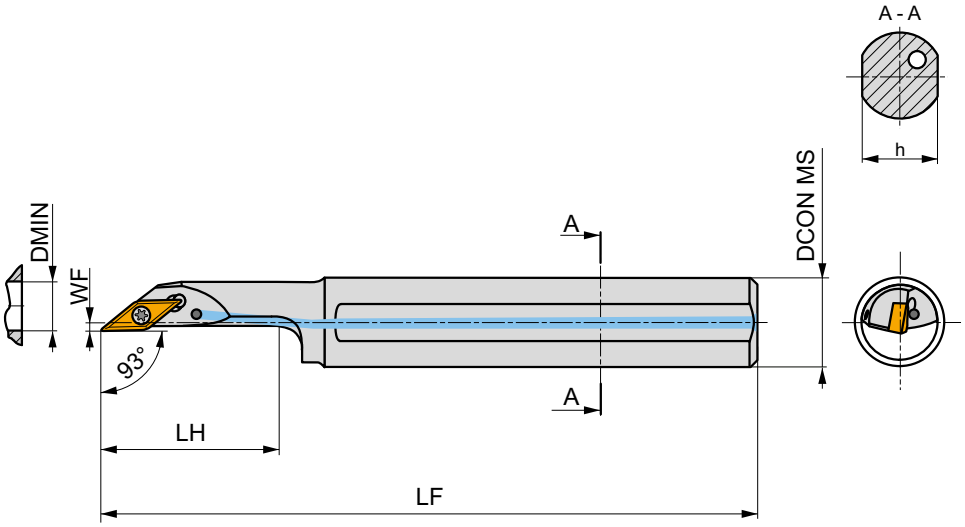
PRAMET

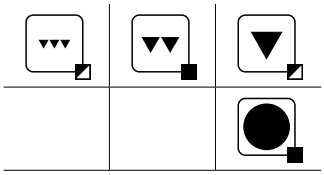
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant, with 93° cutting angle for screw type VB.. 11 and VC.. 11 inserts. Minimum internal turning diameter Ø25 mm. Suited for face copy turning under 50°. Available with shank size Ø20 and Ø25 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	A20R-SVJBR 11	20	25	2	18	200	40	-5	-5	✓	0.44	GI194	S07
	A25S-SVJBR 11	25	32	3.5	23	250	50	-5	-5	✓	0.82	GI194	S07
L	A20R-SVJBL 11	20	25	2	18	200	40	-5	-5	✓	0.42	GI194	S07
	A25S-SVJBL 11	25	32	3.5	23	250	50	-5	-5	✓	0.82	GI194	S07

GI194	VB.. 1103..	VC.. 1103..

S07	US 2506-T07P	0.9 Nm	M 2.5	6.3	FLAG T07P

SVQB(C)(RL) INT

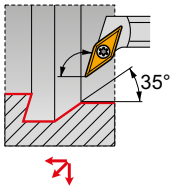
P M K N S H

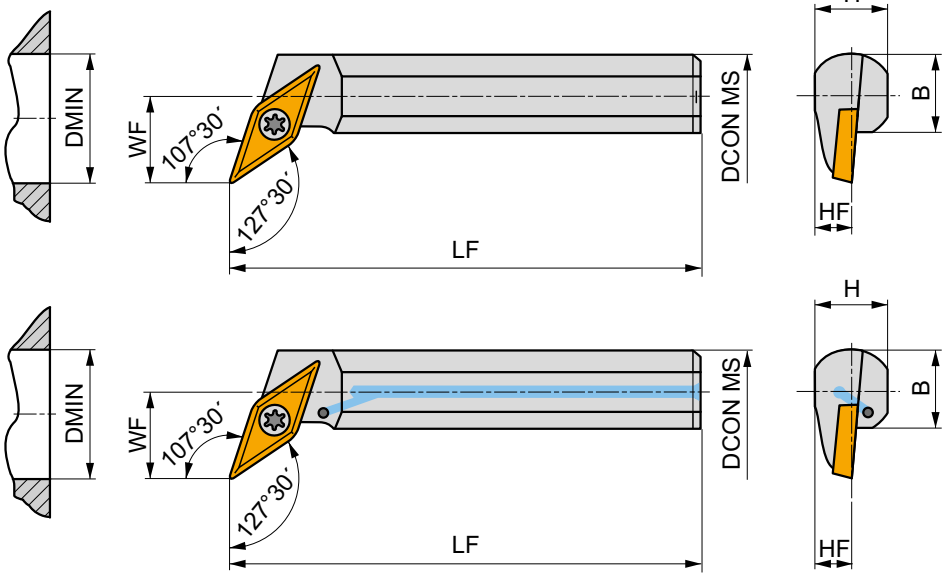
PRAMET

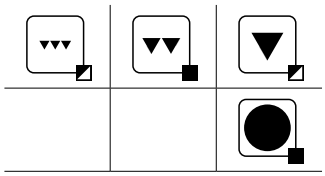
S

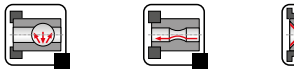
Internal Screw Lock Boring Bar with 107.5° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant available, with 107.5° cutting angle for screw type VB../VC.. 11 and 16 inserts. Minimum internal turning diameter Ø20 mm. Suited for a wide range of internal turning operations. Available with shank size Ø16 up to Ø40 mm.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16R-SVQBR 11	16	20	11	14.5	15	200	-5	0	✓	0.33	GI194	S01
	A20S-SVQBR 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A16R-SVQCR 13	16	21	11	15	15	200	-6	0	✓	0.30	GI211	SV21
	A20S-SVQCR 13	20	25	13	18	18.5	250	-4	0	✓	0.12	GI211	SV21
	S25T-SVQCR 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVQCR 16	32	40	22	30	30	350	-5	0	–	2.07	GI017	S08
	S40V-SVQCR 16-A	40	50	27	38	38	400	-5	0	–	3.80	GI017	SV10
L	A16R-SVQBL 11	16	20	11	14.5	15	200	-5	0	✓	0.33	GI194	S01
	A20S-SVQBL 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A16R-SVQCL 13	16	21	11	15	15	200	-6	0	✓	0.29	GI211	SV21
	A20S-SVQCL 13	20	25	13	18	18.5	250	-4	0	✓	0.54	GI211	SV21
	S25T-SVQCL 16	25	32	17	23	23	300	-7	0	–	1.09	GI017	S08
	S32U-SVQCL 16	32	40	22	30	30	350	-5	0	–	2.07	GI017	S08
	S40V-SVQCL 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–

SVUB(C)(RL) INT

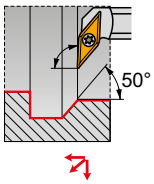
P M K N S H

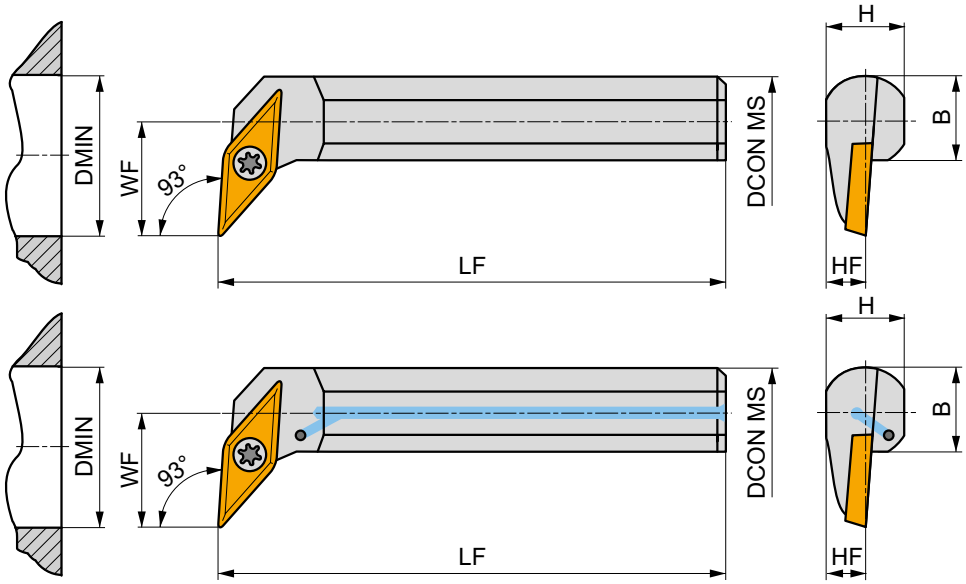
PRAMET

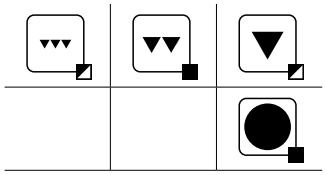
S

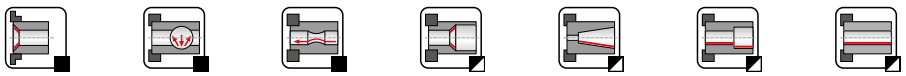
Internal Screw Lock Boring Bar with 93° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant available, with 93° cutting angle for screw type VB../VC.. 11 and 16 inserts. Minimum internal turning diameter Ø20 mm. For a wide range of internal turning operations and copying under 50°. Ø16 up to Ø40 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16R-SVUBR 11	16	20	11	14.5	15	200	-5	0	✓	0.34	GI194	S01
	A20S-SVUBR 11	20	25	13	18	18.8	250	-4	0	✓	0.58	GI194	S01
	A20S-SVUCR 13	20	25	13	19	18.5	250	-4	2	✓	0.40	GI211	SV21
	A25T-SVUCR 13	25	32	17	24	23	300	-2	2	✓	0.96	GI211	SV22
	A32T-SVUCR 13	32	40	22	30	30	300	-1	2	✓	1.70	GI211	SV22
	S25T-SVUCR 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVUCR 16	32	40	22	30	30	350	-5	0	–	2.10	GI017	S08
	S40V-SVUCR 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10
L	A16R-SVUBL 11	16	20	11	14.5	15	200	-5	0	✓	0.34	GI194	S01
	A20S-SVUBL 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A20S-SVUCL 13	20	25	13	19	18.5	250	-4	2	✓	0.32	GI211	SV21
	A25T-SVUCL 13	25	32	17	24	23	300	-2	2	✓	0.96	GI211	SV22
	A32T-SVUCL 13	32	40	22	30	30	300	-1	2	✓	1.70	GI211	SV22
	S25T-SVUCL 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVUCL 16	32	40	22	30	30	350	-5	0	–	2.10	GI017	S08
	S40V-SVUCL 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

C.-SVQB(RL) INT

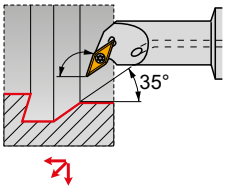
P M K N S H

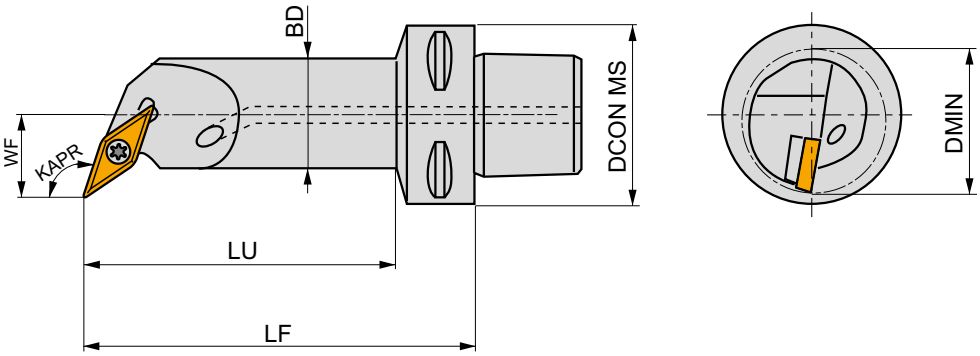
PRAMET

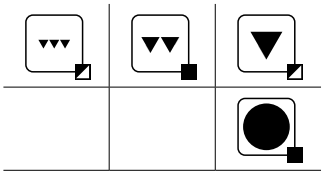
S

Int. PSC Quick Change Tool, Screw Lock, 107.5° Cutting Angle, VB/VC.. Inserts

Internal Right/Left hand tool, through coolant, with 107.5° cutting angle for screw type VB.. 16 or VC.. 16 inserts. Minimum internal turning diameter Ø33 mm. Suited for a wide range of internal turning operations. PSC shank (Polygon Shank Coupling) size C4 and C5 with choice of lengths. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-SVQBR-18090-16	40	33	18	90	68	25	107.5	-7.2	0	✓	0.48	GI017	SV16
	C5-SVQBR-18090-16	50	33	18	90	67	25	107.5	-7.2	0	✓	0.67	GI017	SV16
L	C4-SVQBL-18090-16	40	33	18	90	68	25	107.5	-7.2	0	✓	0.48	GI017	SV16
	C5-SVQBL-18090-16	50	33	18	90	67	25	107.5	-7.2	0	✓	0.68	GI017	SV16

GI017	VB.. 1604..	VC.. 1604..

SV16	US 2010-T15P	3.0 Nm	M 3.5	10.1	FLAG T15P/3,5

VC

07/ 11/ 13/ 16

CARBIDE INSERTS

VCGT

186

VCGW

189

VCGX

189

VCMT

190

VCMW

191

PCD INSERTS

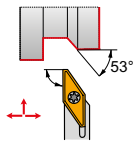
VCMW PCD

192

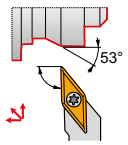
MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
VCGT **07**0204E-FF2	SVGCR 1010 M **07**

ISO TURNING – EXTERNAL

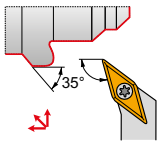
SVAC(RL)-DC EXT

90°	VC..
	13
10×10 25×25	
193	186 – 192

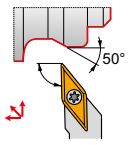
SVGC(RL) EXT

90°	VC..
	07
08×08 16×16	
194	186 – 192

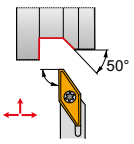
SVHB(C)(RL) EXT

107°30´	VB, VC..
	11 16
16×16 25×25	
195	168 – 171 186 – 192

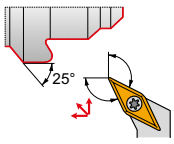
SVJB(C)(RL) EXT

93°	VB, VC..
	11 13 16
12×12 32×25	
196	168 – 171 186 – 192

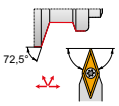
SVJC(RL)-DC EXT

93°	VC..
	13
10×10 25×25	
197	186 – 192

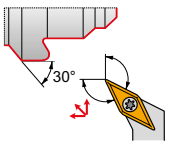
SVPB(C)(RL) EXT

117°30´	VB, VC..
	11 16
16×16 32×25	
198	168 – 171 186 – 192

SVVB(C)N EXT

72°30´	VB, VC..
	11 13 16
12×12 32×25	
199	168 – 171 186 – 192

SVXB(C)(RL) EXT

98°	VB, VC..
	11 13 16
12×12 32×25	
200	168 – 171 186 – 192

VC

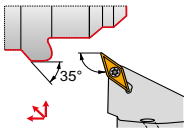
07/ 11/ 13/ 16

C.-SVHB(RL) EXT

107°30´

VB, VC..

16



C4 / C6

201

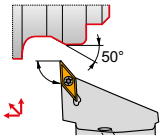
168 – 171
186 – 192

C.-SVJB(RL) EXT

93°

VB, VC..

11
16



C3 / C6

202

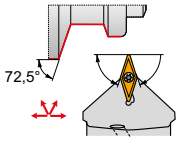
168 – 171
186 – 192

C.-SVVBN EXT

72°30´

VB, VC..

16



C4 / C6

203

168 – 171
186 – 192

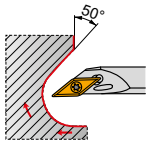
ISO TURNING – INTERNAL

SVJB(RL) INT

93°

VB, VC..

11



ØDmin

25 / 32

204

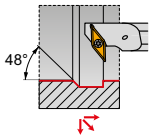
168 – 171
186 – 192

SVLC(RL) INT

95°

VC..

13



ØDmin

27 / 43

205

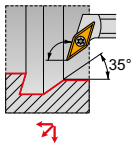
186 – 192

SVQB(C)(RL) INT

107°30´

VB, VC..

11
13
16



ØDmin

20 / 50

206

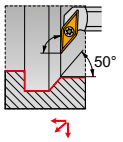
168 – 171
186 – 192

SVUB(C)(RL) INT

93°

VB, VC..

11
13
16



ØDmin

20 / 50

207

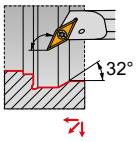
168 – 171
186 – 192

SVXC(RL) INT

113°

VC..

07



ØDmin

12,5 / 17,5

208

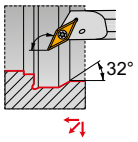
186 – 192

SVXC(RL)-E INT

113°

VC..

07



ØDmin

12,5 / 17,5

209

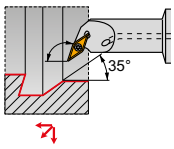
186 – 192

C.-SVQB(C)(RL) INT

108°

VB, VC..

16



ØDmin

33

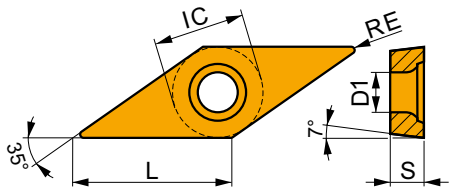
210

168 – 171
186 – 192

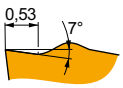
VCGT

PRAMET

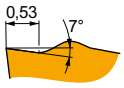
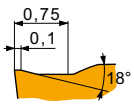
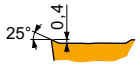
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0702	3.970	2.20	6.90	2.38
1102-SF3	6.350	2.80	11.10	2.58
1103	6.350	2.80	11.10	3.18
1103-SF3	6.350	2.80	11.10	3.43
1303	7.940	3.40	13.80	3.18
1303-AL	7.940	3.40	13.80	3.43
1303-SF3	7.940	3.40	13.80	3.43
1604	9.525	4.40	16.60	4.76
1604-SF3	9.525	4.40	16.60	5.01



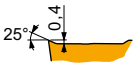
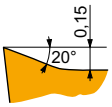
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																				
VCGT 070202F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	315	0.12	1.0	–	–	–	–	–	–
VCGT 110302F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	300	0.12	1.5	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	465	0.12	0.8	–	–	–	–	–	–
VCGT 110304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	240	0.24	1.5	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	375	0.24	0.8	–	–	–	–	–	–
VCGT 130302F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	285	0.12	1.7	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	420	0.12	1.7	–	–	–	–	–	–
VCGT 130304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	240	0.24	1.7	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	345	0.24	1.7	–	–	–	–	–	–
VCGT 130308F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	210	0.48	1.7	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	315	0.48	1.7	–	–	–	–	–	–
VCGT 160402F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	285	0.12	2.4	–	–	–	–	–	–
	T0315	0.2	–	–	–	–	–	–	–	–	–	420	0.12	2.4	–	–	–	–	–	–
VCGT 160404F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	225	0.24	2.4	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	330	0.24	2.4	–	–	–	–	–	–
VCGT 160408F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	210	0.48	2.4	–	–	–	–	–	–
	T0315	0.8	–	–	–	–	–	–	–	–	–	300	0.48	2.4	–	–	–	–	–	–
VCGT 160412F-AL	**HF7**	1.2	–	–	–	–	–	–	–	–	–	180	0.72	2.4	–	–	–	–	–	–
	T0315	1.2	–	–	–	–	–	–	–	–	–	270	0.72	2.4	–	–	–	–	–	–
																				
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
VCGT 070202E-FF2	**T8315**	0.2	150	0.05	0.8	–	–	–	140	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.2	145	0.05	0.8	–	–	–	135	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	190	0.05	0.8	–	–	–	155	0.05	0.8	–	–	–	–	–	–	–	–	–
VCGT 070204E-FF2	**T8315**	0.4	125	0.12	0.8	–	–	–	115	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.4	120	0.12	0.8	–	–	–	110	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	145	0.12	0.8	–	–	–	120	0.12	0.8	–	–	–	–	–	–	–	–	–
VCGT 130302E-FF2	**T5315**	0.2	250	0.05	1.0	–	–	–	235	0.05	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.2	165	0.05	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.2	140	0.05	1.0	–	–	–	130	0.05	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.2	185	0.05	1.0	–	–	–	150	0.05	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.2	265	0.05	1.0	–	–	–	250	0.05	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.2	240	0.05	1.0	–	–	–	225	0.05	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.2	240	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																	
VCGT 130304E-FF2	**T5315**	0.4	◪ 195	0.12	1.0	–	–	–	■ 185	0.12	1.0	–	–	–	–	–	–	–	–	–
	T7325	0.4	◪ 135	0.12	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 115	0.12	1.0	–	–	–	■ 105	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 140	0.12	1.0	–	–	–	◪ 115	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 195	0.12	1.0	–	–	–	◪ 185	0.12	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 175	0.12	1.0	–	–	–	◪ 165	0.12	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 245	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VCGT 130308E-FF2	**T7325**	0.8	◪ 145	0.17	1.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 200	0.17	1.0	–	–	–	◪ 190	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 180	0.17	1.0	–	–	–	◪ 170	0.17	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.8	■ 245	0.10	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
			FM2 geometry for finish to medium machining, and continuous to interrupted cuts.																	
VCGT 130308E-FM2	**T8330**	0.8	■ 125	0.17	1.0	◪ 75	0.15	1.0	■ 115	0.17	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 145	0.17	1.0	◪ 80	0.15	1.0	◪ 120	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 180	0.17	1.0	◪ 105	0.15	1.0	◪ 170	0.17	1.0	–	–	–	–	–	–	–	–	–
																				
			NF2 geometry with positive design for fine-finish to semi-rough machining, and continuous cuts.																	
VCGT 130302E-NF2	**H07**	0.2	–	–	–	◪ 60	0.09	1.0	◪ 95	0.10	1.0	◪ 310	0.12	1.0	■ 30	0.07	0.8	–	–	–
	T6310	0.2	◪ 125	0.07	1.0	■ 90	0.06	1.0	◪ 100	0.07	1.0	◪ 375	0.08	1.0	■ 35	0.06	0.8	–	–	–
	T7325	0.2	◪ 150	0.07	1.0	■ 115	0.06	1.0	–	–	–	–	–	–	■ 45	0.06	0.8	–	–	–
	T7335	0.2	◪ 150	0.07	1.0	■ 115	0.06	1.0	–	–	–	–	–	–	■ 45	0.06	0.8	–	–	–
	T9315	0.2	◪ 200	0.10	1.0	–	–	–	◪ 190	0.10	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.2	◪ 210	0.07	1.0	■ 125	0.06	1.0	◪ 195	0.07	1.0	–	–	–	◪ 45	0.06	0.8	–	–	–
	T9335	0.2	◪ 155	0.10	1.0	■ 90	0.09	1.0	–	–	–	–	–	–	◪ 30	0.07	0.8	–	–	–
	TT010	0.2	◪ 240	0.05	0.5	◪ 140	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–
VCGT 130304E-NF2	**H07**	0.4	–	–	–	◪ 60	0.11	1.0	◪ 95	0.12	1.0	◪ 310	0.14	1.0	■ 30	0.11	0.8	–	–	–
	T5315	0.4	◪ 195	0.12	1.0	–	–	–	◪ 185	0.12	1.0	–	–	–	–	–	–	–	–	–
	T6310	0.4	◪ 115	0.12	1.0	■ 80	0.11	1.0	◪ 90	0.12	1.0	◪ 345	0.14	1.0	■ 30	0.11	0.8	–	–	–
	T7325	0.4	◪ 135	0.12	1.0	■ 105	0.11	1.0	–	–	–	–	–	–	■ 40	0.08	0.8	–	–	–
	T7335	0.4	◪ 135	0.12	1.0	■ 105	0.11	1.0	–	–	–	–	–	–	■ 40	0.08	0.8	–	–	–
	T9315	0.4	◪ 210	0.10	1.0	–	–	–	◪ 195	0.10	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.4	◪ 175	0.12	1.0	■ 105	0.11	1.0	◪ 165	0.12	1.0	–	–	–	◪ 35	0.08	0.8	–	–	–
	T9335	0.4	◪ 150	0.12	1.0	■ 90	0.11	1.0	–	–	–	–	–	–	◪ 30	0.11	0.8	–	–	–
	TT010	0.4	◪ 245	0.06	0.5	◪ 145	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–
VCGT 130308E-NF2	**T5315**	0.8	◪ 205	0.17	1.0	–	–	–	◪ 190	0.17	1.0	–	–	–	–	–	–	–	–	–
	T6310	0.8	◪ 125	0.17	1.0	■ 90	0.15	1.0	◪ 100	0.17	1.0	◪ 375	0.20	1.0	■ 35	0.12	0.8	–	–	–
	T7325	0.8	◪ 145	0.17	1.0	■ 110	0.15	1.0	–	–	–	–	–	–	■ 45	0.12	0.8	–	–	–
	T7335	0.8	◪ 140	0.17	1.0	■ 105	0.15	1.0	–	–	–	–	–	–	■ 45	0.12	0.8	–	–	–
	T9315	0.8	◪ 200	0.17	1.0	–	–	–	◪ 190	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	◪ 180	0.17	1.0	■ 105	0.15	1.0	◪ 170	0.17	1.0	–	–	–	◪ 40	0.12	0.8	–	–	–
	T9335	0.8	◪ 155	0.18	1.0	■ 90	0.16	1.0	–	–	–	–	–	–	◪ 30	0.16	0.8	–	–	–
	TT010	0.8	◪ 245	0.10	0.8	◪ 145	0.09	0.8	–	–	–	–	–	–	–	–	–	–	–	–
																				
			SF2 geometry with highly positive design for fine to finish machining, and continuous cuts.																	
VCGT 130301E-SF2	**H07**	0.1	–	–	–	◪ 80	0.05	1.0	–	–	–	◪ 405	0.06	1.0	■ 40	0.04	0.8	–	–	–
	T6310	0.1	◪ 140	0.05	1.0	■ 100	0.05	1.0	–	–	–	◪ 420	0.06	1.0	■ 40	0.04	0.8	–	–	–

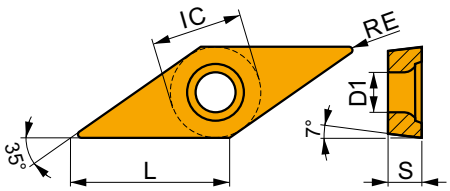
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
SF2 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
VCGT 130302E-SF2	**H07**	0.2	–	–	–	80	0.05	1.0	–	–	–	405	0.06	1.0	40	0.04	0.8	–	–	–
	HF7	0.2	–	–	–	90	0.05	1.0	–	–	–	450	0.06	1.0	–	–	–	–	–	–
	T6310	0.2	140	0.05	1.0	100	0.05	1.0	–	–	–	420	0.06	1.0	40	0.04	0.8	–	–	–
VCGT 130304E-SF2	**H07**	0.4	–	–	–	65	0.09	1.0	–	–	–	335	0.12	1.0	30	0.07	0.8	–	–	–
	HF7	0.4	–	–	–	75	0.09	1.0	–	–	–	375	0.12	1.0	–	–	–	–	–	–
	T6310	0.4	125	0.10	1.0	90	0.09	1.0	–	–	–	375	0.12	1.0	35	0.07	0.8	–	–	–
VCGT 130308E-SF2	**H07**	0.8	–	–	–	75	0.09	1.0	–	–	–	390	0.12	1.0	35	0.08	0.8	–	–	–
	HF7	0.8	–	–	–	85	0.09	1.0	–	–	–	435	0.12	1.0	–	–	–	–	–	–
	T6310	0.8	145	0.10	1.0	100	0.09	1.0	–	–	–	435	0.12	1.0	40	0.08	0.8	–	–	–
																				
SF3 geometry with highly positive design for fine to finish machining, and continuous cuts.																				
VCGT 070202E-SF3	**H07**	0.2	–	–	–	80	0.05	0.8	130	0.05	0.8	415	0.06	0.8	40	0.04	0.6	–	–	–
	T6310	0.2	145	0.05	0.8	100	0.05	0.8	115	0.05	0.8	435	0.06	0.8	40	0.04	0.6	25	0.15	1.0
VCGT 070204E-SF3	**T6310**	0.4	125	0.10	0.8	90	0.09	0.8	100	0.10	0.8	375	0.12	0.8	35	0.07	0.6	25	0.15	1.0
VCGT 110201E-SF3	**T6310**	0.1	140	0.05	0.5	100	0.05	0.5	110	0.05	0.5	420	0.06	0.5	40	0.04	0.4	25	0.15	1.0
VCGT 110202E-SF3	**H07**	0.2	–	–	–	80	0.05	0.8	130	0.05	0.8	415	0.06	0.8	40	0.04	0.6	–	–	–
	T6310	0.2	145	0.05	0.8	100	0.05	0.8	115	0.05	0.8	435	0.06	0.8	40	0.04	0.6	25	0.15	1.0
	T8315	0.2	150	0.05	0.8	90	0.05	0.8	140	0.05	0.8	450	0.06	0.8	35	0.04	0.6	30	0.15	1.0
VCGT 110204E-SF3	**H07**	0.4	–	–	–	65	0.09	0.8	105	0.10	0.8	335	0.12	0.8	30	0.07	0.6	–	–	–
	T6310	0.4	125	0.10	0.8	90	0.09	0.8	100	0.10	0.8	375	0.12	0.8	35	0.07	0.6	25	0.15	1.0
	T8315	0.4	135	0.10	0.8	80	0.09	0.8	125	0.10	0.8	405	0.12	0.8	30	0.07	0.6	25	0.15	1.0
VCGT 110301E-SF3	**T6310**	0.1	140	0.05	0.5	100	0.05	0.5	110	0.05	0.5	420	0.06	0.5	40	0.04	0.4	25	0.15	1.0
VCGT 110302E-SF3	**T6310**	0.2	145	0.05	0.8	100	0.05	0.8	115	0.05	0.8	435	0.06	0.8	40	0.04	0.6	25	0.15	1.0
VCGT 110304E-SF3	**T6310**	0.4	125	0.10	0.8	90	0.09	0.8	100	0.10	0.8	375	0.12	0.8	35	0.07	0.6	25	0.15	1.0
VCGT 130302E-SF3	**H07**	0.2	–	–	–	80	0.05	0.8	130	0.05	0.8	415	0.06	0.8	40	0.04	0.6	–	–	–
	T6310	0.2	145	0.05	0.8	100	0.05	0.8	115	0.05	0.8	435	0.06	0.8	40	0.04	0.6	25	0.15	1.0
	T8315	0.2	150	0.05	0.8	90	0.05	0.8	140	0.05	0.8	450	0.06	0.8	35	0.04	0.6	30	0.15	1.0
VCGT 130304E-SF3	**H07**	0.4	–	–	–	65	0.09	1.0	105	0.10	1.0	335	0.12	1.0	30	0.07	0.8	–	–	–
	T6310	0.4	125	0.10	1.0	90	0.09	1.0	100	0.10	1.0	375	0.12	1.0	35	0.07	0.8	25	0.15	1.0
	T8315	0.4	130	0.10	1.0	75	0.09	1.0	120	0.10	1.0	390	0.12	1.0	30	0.07	0.8	25	0.15	1.0
VCGT 130308E-SF3	**H07**	0.8	–	–	–	75	0.09	1.0	120	0.10	1.0	390	0.12	1.0	35	0.08	0.8	–	–	–
	T6310	0.8	145	0.10	1.0	100	0.09	1.0	115	0.10	1.0	435	0.12	1.0	40	0.08	0.8	25	0.15	1.0
	T8315	0.8	155	0.10	1.0	90	0.09	1.0	145	0.10	1.0	465	0.12	1.0	35	0.08	0.8	30	0.15	1.0
VCGT 160402E-SF3	**T6310**	0.2	145	0.05	0.8	100	0.05	0.8	115	0.05	0.8	435	0.06	0.8	40	0.04	0.6	25	0.15	1.0
VCGT 160404E-SF3	**H07**	0.4	–	–	–	65	0.09	1.0	105	0.10	1.0	335	0.12	1.0	30	0.07	0.8	–	–	–
	T6310	0.4	125	0.10	1.0	90	0.09	1.0	100	0.10	1.0	375	0.12	1.0	35	0.07	0.8	25	0.15	1.0
	T8315	0.4	130	0.10	1.0	75	0.09	1.0	120	0.10	1.0	390	0.12	1.0	30	0.07	0.8	25	0.15	1.0
VCGT 160408E-SF3	**H07**	0.8	–	–	–	75	0.09	1.2	120	0.10	1.2	390	0.12	1.2	35	0.08	1.0	–	–	–
	T6310	0.8	145	0.10	1.2	100	0.09	1.2	115	0.10	1.2	435	0.12	1.2	40	0.08	1.0	25	0.15	1.0
	T8315	0.8	155	0.10	1.2	90	0.09	1.2	145	0.10	1.2	465	0.12	1.2	35	0.08	1.0	30	0.15	1.0
VCGT 160412E-SF3	**H07**	1.2	–	–	–	60	0.18	1.2	95	0.20	1.2	310	0.24	1.2	30	0.14	1.0	–	–	–
	T6310	1.2	125	0.20	1.2	90	0.18	1.2	100	0.20	1.2	375	0.24	1.2	35	0.14	1.0	25	0.15	1.0

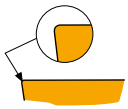
VCGW

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1303	7.940	3.40	13.80	3.18



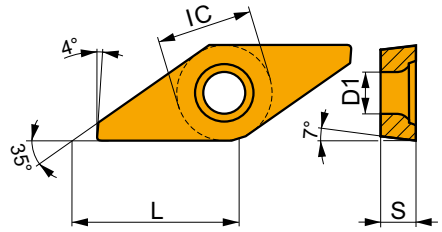
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
VCGW 130302	**T5305**	0.2	–	–	–	–	–	–	170	0.08	1.3	–	–	–	–	–	–	35	0.15	1.0
VCGW 130304	**T5305**	0.4	–	–	–	–	–	–	165	0.10	1.3	–	–	–	–	–	–	35	0.15	1.0
VCGW 130308	**T5305**	0.8	–	–	–	–	–	–	160	0.18	1.3	–	–	–	–	–	–	30	0.15	1.0

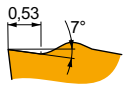
VCGX

PRAMET

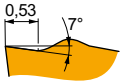
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1303	7.940	3.40	13.80	3.18



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			U		E															
			FR-FF2 geometry with positive right-handed design for fine-finish to finish machining, and continuous cuts.																	
VCGX 130300FR-FF2	**T6310**	0.0	140	0.05	1.0	–	–	–	110	0.05	1.0	–	–	–	–	–	–	–	–	–
	T8315	0.0	150	0.05	1.0	–	–	–	140	0.05	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.0	240	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VCGX 130301FR-FF2	**T6310**	0.1	140	0.05	1.0	–	–	–	110	0.05	1.0	–	–	–	–	–	–	–	–	–
	T8315	0.1	150	0.05	1.0	–	–	–	140	0.05	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.1	240	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

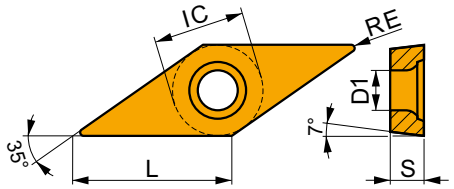
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			FL-FF2 geometry with positive left-handed design for fine-finish to finish machining, and continuous cuts.																	
VCGX 130300FL-FF2	**T6310**	0.0	140	0.05	1.0	–	–	–	110	0.05	1.0	–	–	–	–	–	–	–	–	–
	T8315	0.0	150	0.05	1.0	–	–	–	140	0.05	1.0	–	–	–	–	–	–	–	–	–
	TT010	0.0	240	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VCGX 130301FL-FF2	**T6310**	0.1	140	0.05	1.0	–	–	–	110	0.05	1.0	–	–	–	–	–	–	–	–	–
	T8315	0.1	150	0.05	1.0	–	–	–	140	0.05	1.0	–	–	–	–	–	–	–	–	–

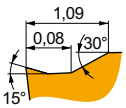
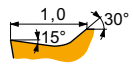
VCMT

PRAMET

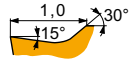
	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
1103	6.350	2.80	11.10	3.18
1604	9.525	4.40	16.60	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
VCMT 160404E-FM	**T7325**	0.4	125	0.19	1.2	95	0.17	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	130	0.12	1.2	75	0.11	1.2	120	0.12	1.2	390	0.14	1.2	–	–	–	–	–	–
	T8430	0.4	150	0.12	1.2	80	0.11	1.2	125	0.12	1.2	420	0.14	1.2	–	–	–	–	–	–
	T9315	0.4	210	0.12	1.2	–	–	–	195	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	155	0.19	1.2	90	0.17	1.2	145	0.19	1.2	–	–	–	–	–	–	–	–	–
VCMT 160408E-FM	**T7325**	0.8	155	0.17	1.2	120	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	135	0.17	1.2	80	0.15	1.2	125	0.17	1.2	405	0.20	1.2	–	–	–	–	–	–
	T8430	0.8	155	0.17	1.2	85	0.15	1.2	130	0.17	1.2	435	0.20	1.2	–	–	–	–	–	–
	T9315	0.8	220	0.17	1.2	–	–	–	205	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	195	0.17	1.2	115	0.15	1.2	185	0.17	1.2	–	–	–	–	–	–	–	–	–
																				
			UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																	
VCMT 110304E-UR	**T7325**	0.4	110	0.19	0.8	85	0.17	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	110	0.12	0.8	65	0.11	0.8	100	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	135	0.12	0.8	75	0.11	0.8	110	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	190	0.12	0.8	–	–	–	180	0.12	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	140	0.19	0.8	80	0.17	0.8	130	0.19	0.8	–	–	–	–	–	–	–	–	–
VCMT 110308E-UR	**T7325**	0.8	140	0.17	0.8	105	0.15	0.8	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	125	0.17	0.8	75	0.15	0.8	115	0.17	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.8	140	0.17	0.8	75	0.15	0.8	115	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	195	0.17	0.8	–	–	–	185	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	175	0.17	0.8	105	0.15	0.8	165	0.17	0.8	–	–	–	–	–	–	–	–	–

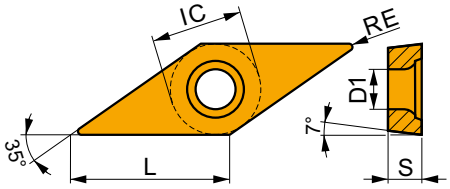
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																	
VCMT 160404E-UR	**T7325**	0.4	◪ 110	0.19	1.2	◪ 85	0.17	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 110	0.12	1.2	◪ 65	0.11	1.2	■ 100	0.12	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 130	0.12	1.2	◪ 70	0.11	1.2	◪ 105	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	■ 180	0.12	1.2	–	–	–	◪ 170	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 135	0.19	1.2	◪ 80	0.17	1.2	◪ 125	0.19	1.2	–	–	–	–	–	–	–	–	–
VCMT 160408E-UR	**T7325**	0.8	◪ 135	0.17	1.2	◪ 105	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 115	0.17	1.2	◪ 65	0.15	1.2	■ 105	0.17	1.2	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 135	0.17	1.2	◪ 75	0.15	1.2	◪ 110	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 190	0.17	1.2	–	–	–	◪ 180	0.17	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 170	0.17	1.2	◪ 100	0.15	1.2	◪ 160	0.17	1.2	–	–	–	–	–	–	–	–	–

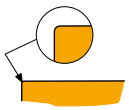
VCMW

PRAMET

	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
1103	6.350	2.80	11.10	3.18
1604	9.525	4.40	16.60	4.76



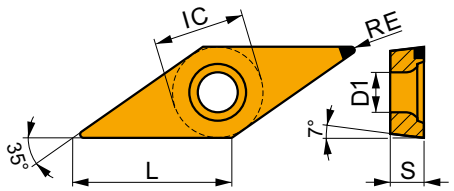
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
VCMW 110302	**T5305**	0.2	–	–	–	–	–	–	■ 170	0.08	1.2	–	–	–	–	–	–	◪ 35	0.15	1.0
	T5315	0.2	–	–	–	–	–	–	■ 145	0.08	1.2	–	–	–	–	–	–	◪ 30	0.15	1.0
	T6310	0.2	–	–	–	–	–	–	■ 70	0.08	1.2	–	–	–	–	–	–	◪ 15	0.15	1.0
VCMW 110304	**T5305**	0.4	–	–	–	–	–	–	■ 165	0.10	1.2	–	–	–	–	–	–	◪ 35	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	■ 145	0.10	1.2	–	–	–	–	–	–	◪ 30	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	■ 70	0.10	1.2	–	–	–	–	–	–	◪ 15	0.15	1.0
VCMW 160404	**T5305**	0.4	–	–	–	–	–	–	■ 165	0.10	1.5	–	–	–	–	–	–	◪ 35	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	■ 140	0.10	1.5	–	–	–	–	–	–	◪ 30	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	■ 70	0.10	1.5	–	–	–	–	–	–	◪ 15	0.15	1.0
VCMW 160408	**T5305**	0.8	–	–	–	–	–	–	■ 155	0.18	1.5	–	–	–	–	–	–	◪ 30	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	■ 135	0.18	1.5	–	–	–	–	–	–	◪ 25	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	■ 70	0.18	1.5	–	–	–	–	–	–	◪ 15	0.15	1.0

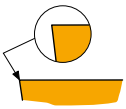
VCMW PCD

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	4.40	16.60	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC F																	
PCD tipped for finish to semi-rough machining, high speeds and stable cutting conditions.																				
VCMW 160404FN	**PD1**	0.4	–	–	–	–	–	–	–	–	–	■ 900	0.12	0.5	–	–	–	–	–	–
VCMW 160408FN	**PD1**	0.8	–	–	–	–	–	–	–	–	–	■ 1050	0.12	1.0	–	–	–	–	–	–

SVAC(RL)-DC EXT

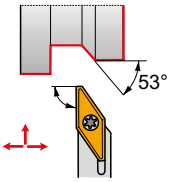
P M K N S H

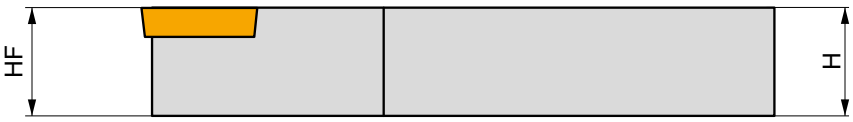
PRAMET

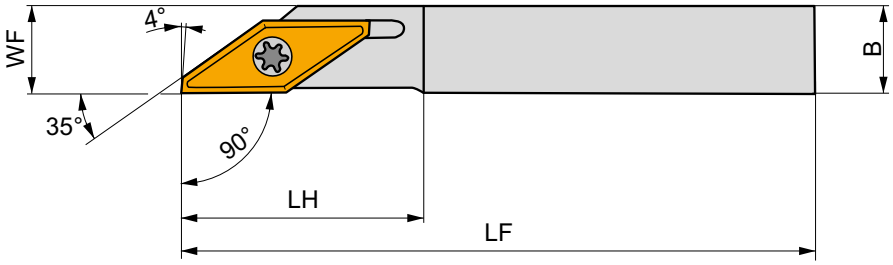
S

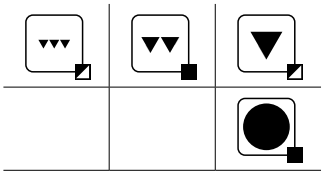
Ext. Screw Lock Swiss Style Tool Holder, 90° Cutting Angle for VCGX 13 Insert

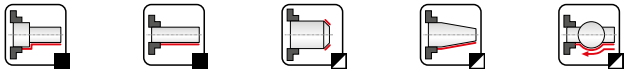
External Right/Left hand tool holder for screw type positive VCGX 13 Swiss style inserts. Suited for external face and longitudinal turning with shoulder, taper, copy turning up to 53° and chamfer turning. Available with shank size 10x10 up to 25x25mm. Body treated for longer tool life.











	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVACR 1010 L 13-DC	10	10	10	10	140	25	0	0	0.12	GI222	SV20
	SVACR 1212 L 13-DC	12	12	12	12	140	25	0	0	0.17	GI222	SV20
	SVACR 1616 M 13-DC	16	16	16	16	150	25	0	0	0.29	GI222	SV20
	SVACR 2020 M 13-DC	20	20	20	20	150	25	0	0	0.46	GI222	SV20
	SVACR 2525 M 13-DC	25	25	25	25	150	25	0	0	0.67	GI222	SV20
L	SVACL 1010 L 13-DC	10	10	10	10	140	25	0	0	0.10	GI222	SV20
	SVACL 1212 L 13-DC	12	12	12	12	140	25	0	0	0.19	GI222	SV20
	SVACL 1616 M 13-DC	16	16	16	16	150	25	0	0	0.29	GI222	SV20
	SVACL 2020 M 13-DC	20	20	20	20	150	25	0	0	0.43	GI222	SV20
	SVACL 2525 M 13-DC	25	25	25	25	150	25	0	0	0.67	GI222	SV20

GI222	VCGX 1303..

		Nm			
SV20	5513 020-24	1.5	M 3	8.5	PT-8002

SVGC(RL) EXT

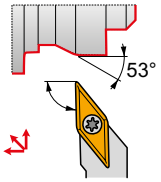
P M K N S H

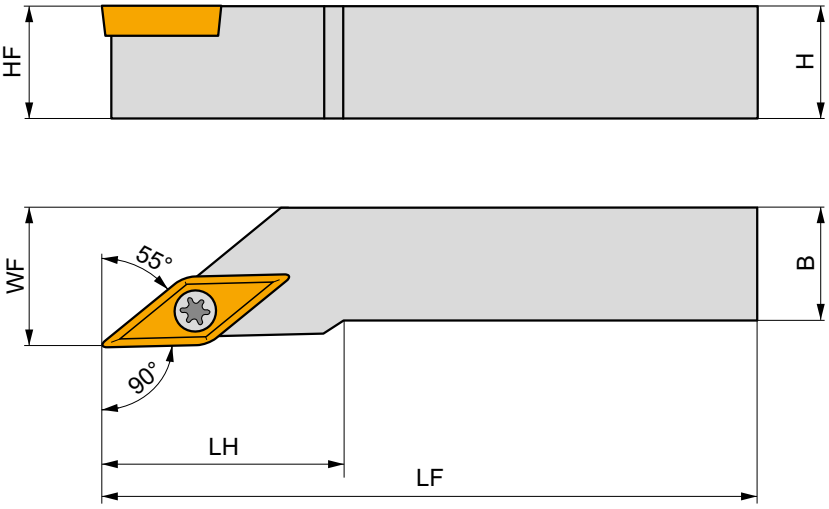
PRAMET

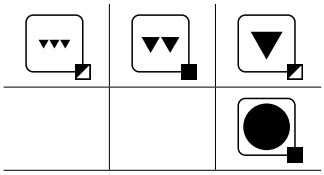
S

External Screw Lock Tool Holder with 90° Cutting Angle for VC.. Insert

External Right/Left hand tool holder for screw type positive VC.. 07 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 53° and chamfer turning. Available with shank size 08x08 up to 16x16 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVGCR 0808 K 07	8	8	8	8.5	125	15	0	0	0.07	GI234	SV23
	SVGCR 1010 M 07	10	10	10	10.5	150	15	0	0	0.13	GI234	SV23
	SVGCR 1212 M 07	12	12	12	12.5	150	18	0	0	0.17	GI234	SV23
	SVGCR 1616 P 07	16	16	16	16.3	170	23	0	0	0.33	GI234	SV23
L	SVGCL 0808 K 07	8	8	8	8.5	125	15	0	0	0.07	GI234	SV23
	SVGCL 1010 M 07	10	10	10	10.5	150	15	0	0	0.13	GI234	SV23
	SVGCL 1212 M 07	12	12	12	12.5	150	18	0	0	0.17	GI234	SV23
	SVGCL 1616 P 07	16	16	16	16.3	170	23	0	0	0.33	GI234	SV23

GI234	VC.. 0702..

SV23	DVF 3584	0.6	M 2	5.5	DMD 1650

SVHB(C)(RL) EXT

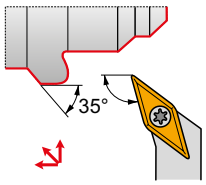
P M K N S H

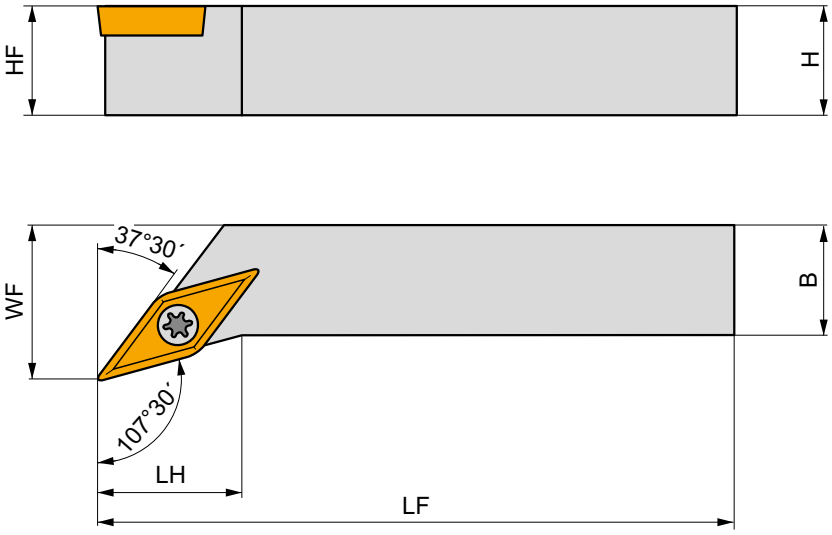
PRAMET

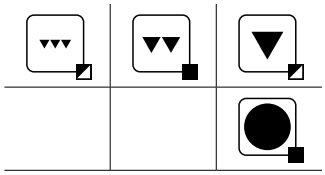
S

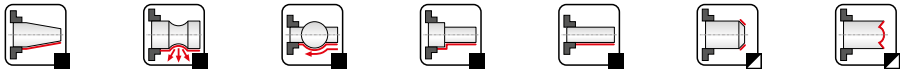
Ext. Screw Lock Tool Holder with 107.5° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 or 16 inserts. Suited for external face and longitudinal turning with shoulder, taper, face and longitudinal copy turning up to 35° and chamfer turning. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**SVHBR 1616 H 11**	16	16	16	20	100	14	0	0	0.21	GI194	S01
	SVHCR 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVHCR 2525 M 16-M-A	25	25	25	32	150	20	0	0	0.68	GI017	SV10
L	**SVHBL 1616 H 11**	16	16	16	20	100	14	0	0	0.19	GI194	S01
	SVHCL 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVHCL 2525 M 16-M-A	25	25	25	32	150	20	0	0	0.07	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5

SVJB(C)(RL) EXT

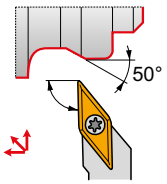
P M K N S H

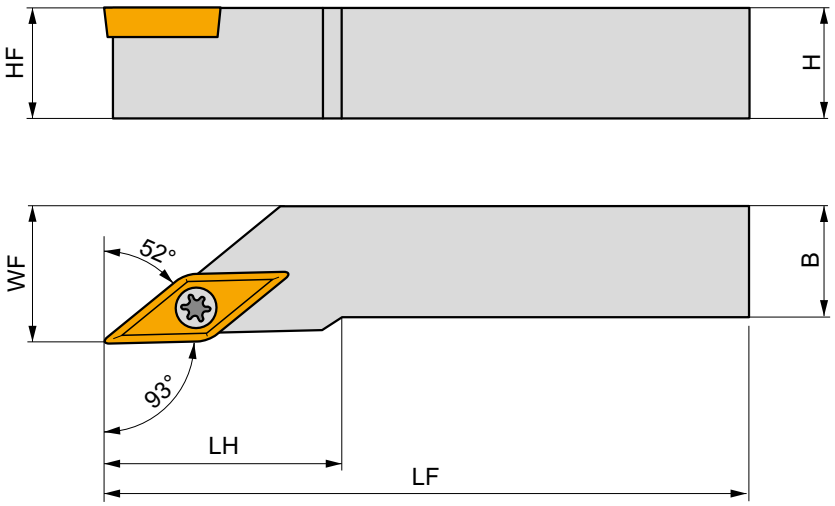
PRAMET

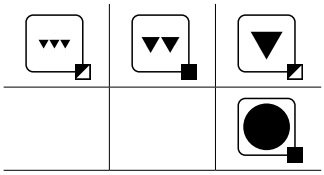
S

External Screw Lock Tool Holder with 93° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 50° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVJBR 1212 F 11	12	12	12	16	80	20	0	0	0.09	GI194	S01
	SVJBR 1616 H 11	16	16	16	20	100	20	0	0	0.20	GI194	S01
	SVJCR 1212 N 13	12	12	12	16	160	27	0	0	0.19	GI211	SV21
	SVJCR 1616 H 13	16	16	16	20	100	30	0	0	0.20	GI211	SV21
	SVJCR 2020 K 13	20	20	20	25	125	30	0	0	0.37	GI211	SV22
	SVJCR 2525 M 13	25	25	25	32	150	30	0	0	0.67	GI211	SV22
	SVJCR 2020 K 16-M-A	20	20	20	25	125	28	0	0	0.35	GI017	SV10
	SVJCR 2525 M 16-M-A	25	25	25	32	150	32	0	0	0.68	GI017	SV10
	SVJCR 3225 P 16-M-A	32	25	32	32	170	32	0	0	0.99	GI017	SV10
L	SVJBL 1212 F 11	12	12	12	16	80	20	0	0	0.09	GI194	S01
	SVJBL 1616 H 11	16	16	16	20	100	20	0	0	0.19	GI194	S01
	SVJCL 1212 N 13	12	12	12	16	160	27	0	0	0.19	GI211	SV21
	SVJCL 1616 H 13	16	16	16	20	100	30	0	0	0.20	GI211	SV21
	SVJCL 2020 K 13	20	20	20	25	125	30	0	0	0.37	GI211	SV22
	SVJCL 2525 M 13	25	25	25	32	150	30	0	0	0.67	GI211	SV22
	SVJCL 2020 K 16-M-A	20	20	20	25	125	28	0	0	0.40	GI017	SV10
	SVJCL 2525 M 16-M-A	25	25	25	32	150	32	0	0	0.70	GI017	SV10
	SVJCL 3225 P 16-M-A	32	25	32	32	170	32	0	0	0.99	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVJC(RL)-DC EXT

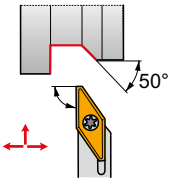
P M K N S H

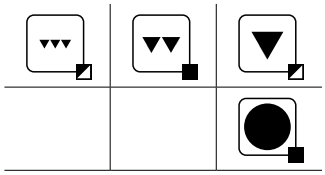
PRAMET

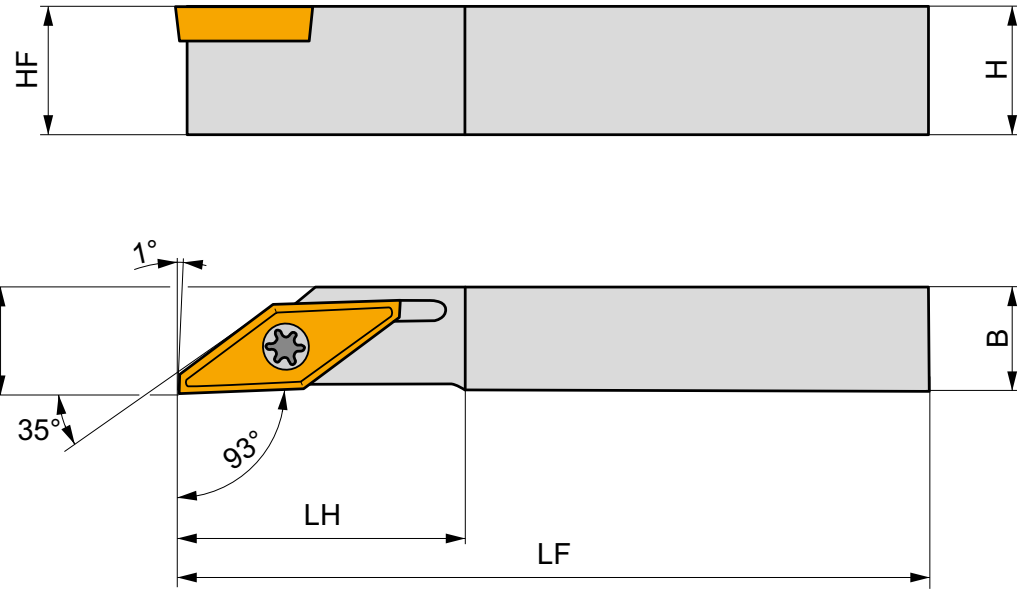
S

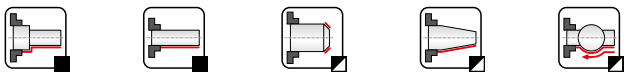
Ext. Screw Lock Swiss Style Tool Holder, 93° Cutting Angle for VCGX 13 Insert

External Right/Left hand tool holder for screw type positive VCGX 13 Swiss style inserts. Suited for external face and longitudinal turning with shoulder, taper, copy turning up to 50° and chamfer turning. Available with shank size 10x10 up to 25x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**SVJCR 1010 L 13-DC**	10	10	10	0	140	25	0	0	0.12	GI222	SV20
	SVJCR 1212 L 13-DC	12	12	12	0	140	25	0	0	0.17	GI222	SV20
	SVJCR 1616 M 13-DC	16	16	16	0	150	25	0	0	0.29	GI222	SV20
	SVJCR 2020 M 13-DC	20	20	20	0	150	25	0	0	0.45	GI222	SV20
	SVJCR 2525 M 13-DC	25	25	25	0	150	25	0	0	0.68	GI222	SV20
L	**SVJCL 1010 L 13-DC**	10	10	10	0	140	25	0	0	0.12	GI222	SV20
	SVJCL 1212 L 13-DC	12	12	12	0	140	25	0	0	0.17	GI222	SV20
	SVJCL 1616 M 13-DC	16	16	16	0	150	25	0	0	0.30	GI222	SV20
	SVJCL 2020 M 13-DC	20	20	20	0	150	25	0	0	0.47	GI222	SV20
	SVJCL 2525 M 13-DC	25	25	25	0	150	25	0	0	0.69	GI222	SV20

GI222	VCGX 1303..

SV20	5513 020-24	1.5	M 3	8.5	PT-8002

SVPB(C)(RL) EXT

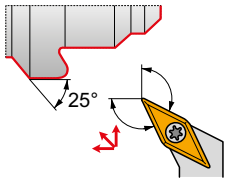
P M K N S H

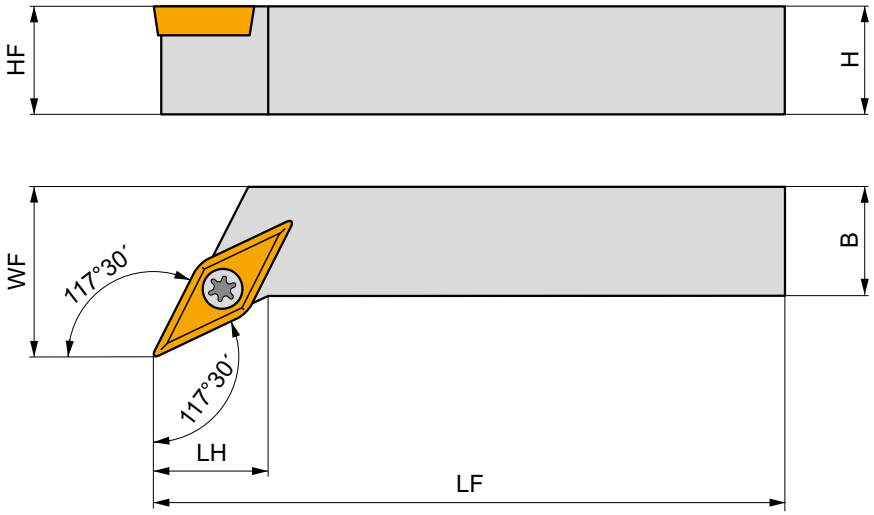
PRAMET

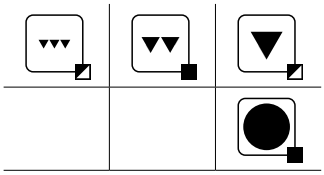
S

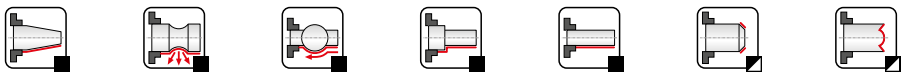
External Screw Lock Tool Holder, 117.5° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 or 16 inserts. Suited for external face and longitudinal turning with shoulder, taper, face copy turning up to 25° and chamfer turning. Available with shank size 16x16 up to 32x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SVPBR 1616 H 11	16	16	16	20	100	12	0	0	0.20	GI194	S01
	SVPBR 2020 K 11	20	20	20	25	125	12	0	0	0.41	GI194	S01
	SVPCR 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.40	GI017	SV10
	SVPCR 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.75	GI017	SV10
	SVPCR 3225 P 16-M-A	32	25	32	32	170	25	0	0	1.10	GI017	SV10
L	SVPBL 1616 H 11	16	16	16	20	100	12	0	0	0.20	GI194	S01
	SVPBL 2020 K 11	20	20	20	25	125	12	0	0	0.39	GI194	S01
	SVPCL 2020 K 16-M-A	20	20	20	25	125	20	0	0	0.70	GI017	SV10
	SVPCL 2525 M 16-M-A	25	25	25	32	150	25	0	0	0.70	GI017	SV10
	SVPCL 3225 P 16-M-A	32	25	32	32	170	25	0	0	1.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5

SVVB(C)N EXT

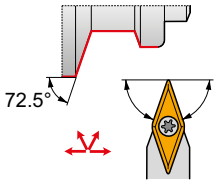
P M K N S H

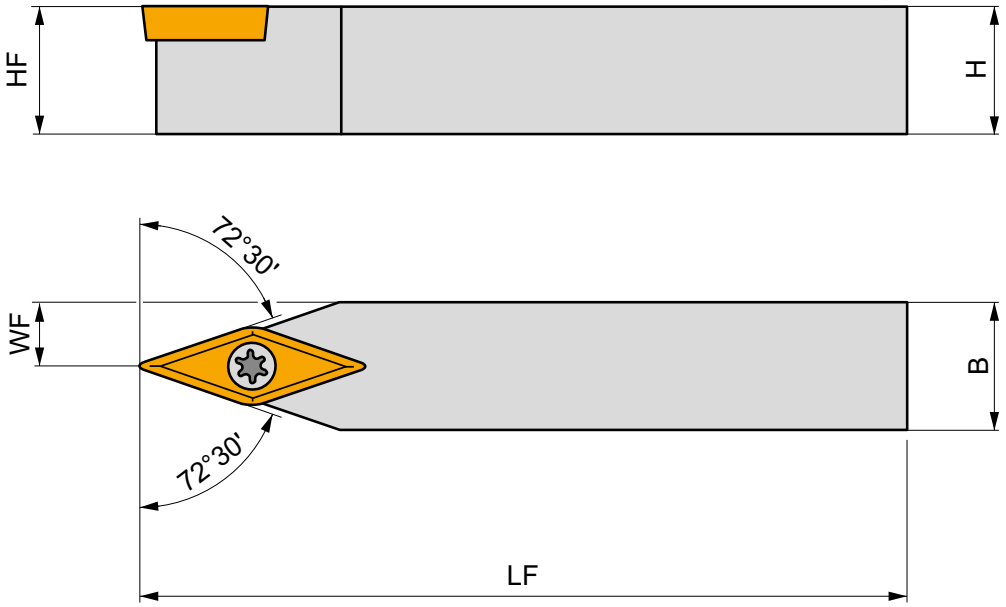
PRAMET

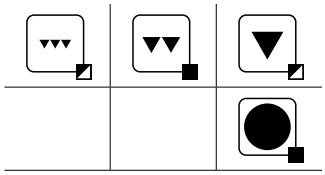
S

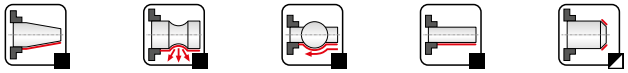
External Screw Lock Tool Holder, 72.5° Cutting Angle for VB/VC.. Inserts

External neutral tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning without shoulder, taper, copy turning up to 72.5° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
N	**SVVBN 1212 F 11**	12	12	12	6	80	–	0	0	0.11	GI194	S01
	SVVBN 1616 H 11	16	16	16	8	100	–	0	0	0.18	GI194	S01
	SVVBN 2020 K 11	20	20	20	10	125	–	0	0	0.38	GI194	S01
	SVVCN 1212 N 13	12	12	12	6	160	–	0	0	0.19	GI211	SV21
	SVVCN 1616 H 13	16	16	16	8	100	–	0	0	0.20	GI211	SV21
	SVVCN 2020 K 13	20	20	20	10	125	–	0	0	0.36	GI211	SV22
	SVVCN 2525 M 13	25	25	25	12.5	150	–	0	0	0.66	GI211	SV22
	SVVCN 2020 K 16-M-A	20	20	20	10	125	–	0	0	0.34	GI017	SV10
	SVVCN 2525 M 16-M-A	25	25	25	12.5	150	–	0	0	0.68	GI017	SV10
	SVVCN 3225 P 16-M-A	32	25	32	12.5	170	–	0	0	0.98	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVXB(C)(RL) EXT

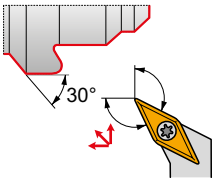
P M K N S H

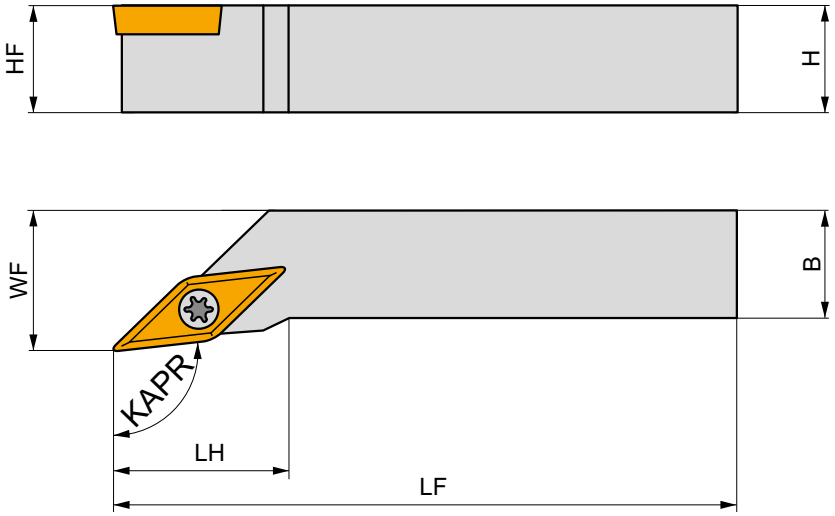
PRAMET

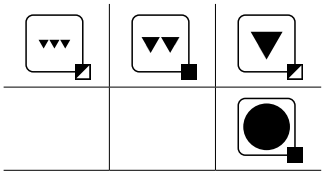
S

External Screw Lock Tool Holder 98/113° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool holder for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 30° and chamfer turning. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	KAPR [°]	LAMS [°]	GAMO [°]	kg		
R	SVXBR 1212 F 11	12	12	12	16	80	20	98	0	0	0.09	GI194	SO1
	SVXBR 1616 H 11	16	16	16	20	100	14	98	0	0	0.19	GI194	SO1
	SVXCR 2020 K 13	20	20	20	25	125	12	113	0	0	0.38	GI211	SV22
	SVXCR 2020 K 16-M-A	20	20	20	25	125	28	98	0	0	0.41	GI017	SV10
	SVXCR 2525 M 16-M-A	25	25	25	32	150	32	98	0	0	0.68	GI017	SV10
	SVXCR 3225 P 16-M-A	32	25	32	32	170	32	98	0	0	1.00	GI017	SV10
L	SVXBL 1212 F 11	12	12	12	16	80	20	98	0	0	0.09	GI194	SO1
	SVXBL 1616 H 11	16	16	16	20	100	14	98	0	0	0.19	GI194	SO1
	SVXCL 2020 K 13	20	20	20	25	125	12	113	0	0	0.38	GI211	SV22
	SVXCL 2020 K 16-M-A	20	20	20	25	125	28	98	0	0	0.38	GI017	SV10
	SVXCL 2525 M 16-M-A	25	25	25	32	150	32	98	0	0	0.69	GI017	SV10
	SVXCL 3225 P 16-M-A	32	25	32	32	170	32	98	0	0	0.99	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
SO1	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

C.-SVHB(RL) EXT

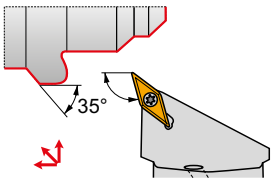
P M K N S H

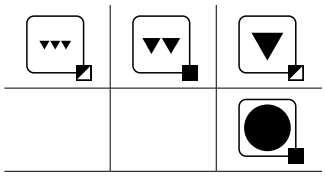
PRAMET

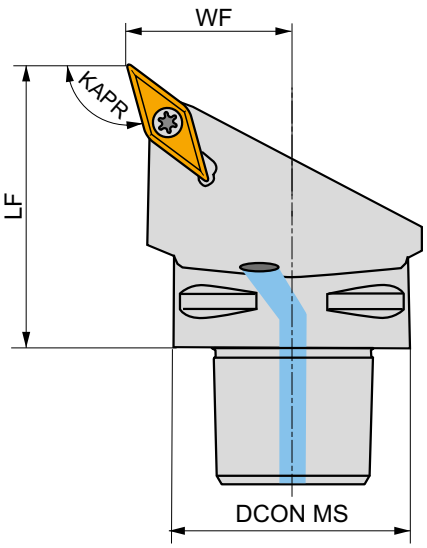
S

Ext. PSC Quick Change Tool, Screw Lock, 107.5° Cutting Angle, VB/VC.. Inserts

External Right/Left hand tool, through coolant, for screw type positive VB.. 16 and VC.. 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 35° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 up to C6. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-SVHBR-27050-16	40	27	50	107.5	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVHBR-35060-16	50	35	60	107.5	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVHBR-45065-16	63	45	65	107.5	0	0	✓	1.13	GI017	C-SV16S-2
L	C4-SVHBL-27050-16	40	27	50	107.5	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVHBL-35060-16	50	35	60	107.5	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVHBL-45065-16	63	45	65	107.5	0	0	✓	1.12	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..

		Nm						
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

C.-SVJB(RL) EXT

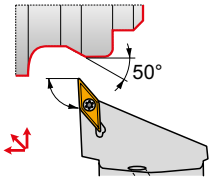
P M K N S H

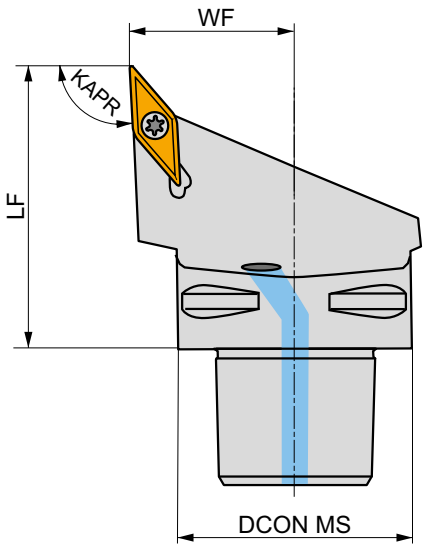
PRAMET

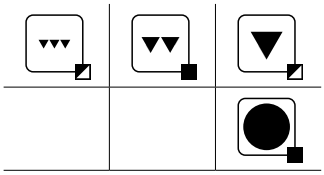
S

Ext. PSC Quick Change Tool, Screw Lock, 93° Cutting Angle for VB/VC.. Inserts

External Right/Left hand tool, through coolant, for screw type positive VB.. 11 or 16 and VC.. 11 up to 16 inserts. Suited for external longitudinal turning with shoulder, taper, copy turning up to 50° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C3 up to C6. Body treated for longer tool life.







	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C3-SVJBR-22040-11-B1	32	22	40	93	0	0	✓	0.17	GI194	C-SV11
	C4-SVJBR-27050-11-B1	40	27	50	93	0	0	✓	0.34	GI194	C-SV11
	C4-SVJBR-27050-16	40	27	50	93	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVJBR-35060-16	50	35	60	93	0	0	✓	0.63	GI017	C-SV16S-2
	C6-SVJBR-45065-16	63	45	65	93	0	0	✓	1.11	GI017	C-SV16S-2
L	C4-SVJBL-27050-16	40	27	50	93	0	0	✓	0.35	GI017	C-SV16S-1
	C5-SVJBL-35060-16	50	35	60	93	0	0	✓	0.64	GI017	C-SV16S-2
	C6-SVJBL-45065-16	63	45	65	93	0	0	✓	1.11	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..

		Nm						
C-SV11	US 2003-T07P	0.8	M 2.5	6.5	–	–	FLAG T07P	CN 034-01
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

C.-SVVBN EXT

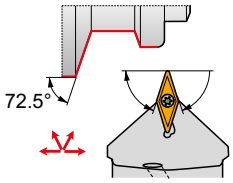
P M K N S H

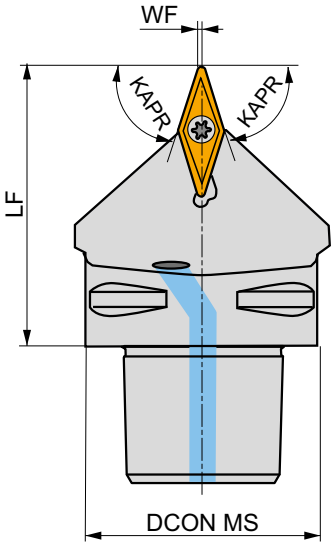
PRAMET

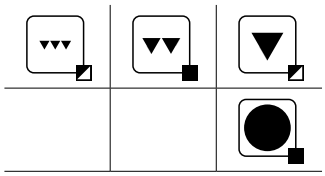
S

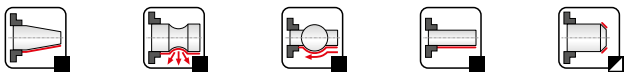
Ext. PSC Quick Change Tool, Screw Lock, 72.5° Cutting Angle, VB/VC.. Inserts

External neutral tool, through coolant, for screw type positive VB.. 16 and VC.. 16 inserts. Suited for external longitudinal turning without shoulder, taper, copy turning up to 72.5° and chamfer turning. Available with PSC (Polygon Shank Coupling) size C4 up to C6. Body treated for longer tool life.









	Product	DCON MS [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
N	**C4-SVVBN-00050-16**	40	0.6	50	72.5	0	0	✓	0.32	GI017	C-SV16S-1
	C5-SVVBN-00060-16	50	0.6	60	72.5	0	0	✓	0.56	GI017	C-SV16S-2
	C6-SVVBN-00065-16	63	0.6	65	72.5	0	0	✓	0.99	GI017	C-SV16S-2

GI017	VB.. 1604..	VC.. 1604..

		Nm						
C-SV16S-1	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-01
C-SV16S-2	US 2001-T15P	3.0	M 3.5	12.1	SVS 270-01	MS 9001	FLAG T15P/3,5	CN 034-02

SVJB(RL) INT

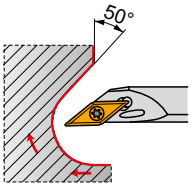
P M K N S H

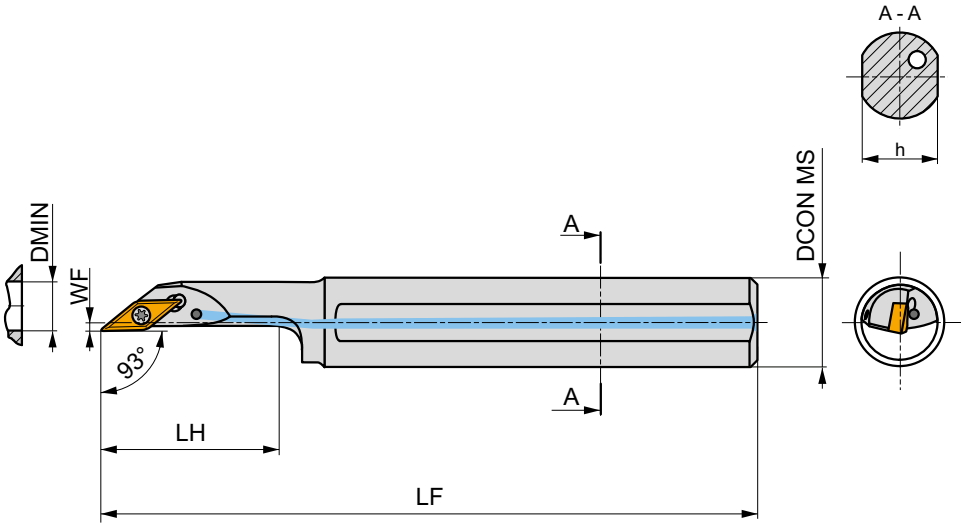
PRAMET

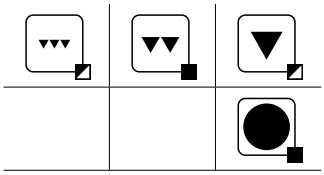
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant, with 93° cutting angle for screw type VB.. 11 and VC.. 11 inserts. Minimum internal turning diameter Ø25 mm. Suited for face copy turning under 50°. Available with shank size Ø20 and Ø25 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	A20R-SVJBR 11	20	25	2	18	200	40	-5	-5	✓	0.44	GI194	S07
	A25S-SVJBR 11	25	32	3.5	23	250	50	-5	-5	✓	0.82	GI194	S07
L	A20R-SVJBL 11	20	25	2	18	200	40	-5	-5	✓	0.42	GI194	S07
	A25S-SVJBL 11	25	32	3.5	23	250	50	-5	-5	✓	0.82	GI194	S07

GI194	VB.. 1103..	VC.. 1103..

S07	US 2506-T07P	0.9 Nm	M 2.5	6.3	FLAG T07P

SVLC(RL) INT

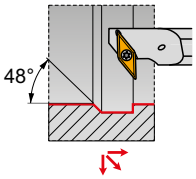
P M K N S H

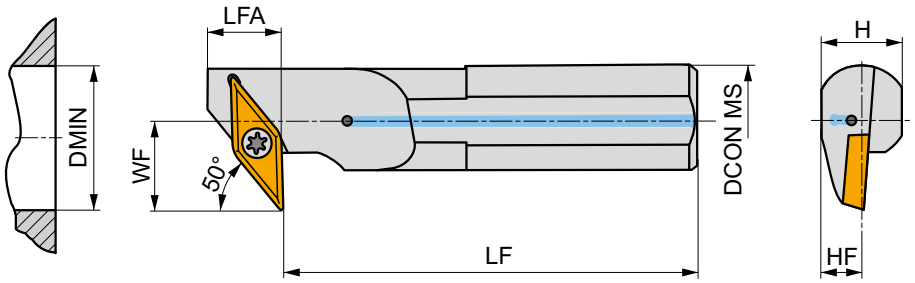
PRAMET

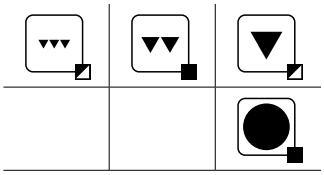
S

Internal Screw Lock Boring Bar with 50° Cutting Angle for VC.. Insert

Internal Right/Left hand boring bar, through coolant, with 50° cutting angle for screw type VC.. 13 inserts. Minimum internal turning diameter Ø27 mm. Suited for a wide range of internal pulling turning operations and copying under 48° . Available with shank size Ø20 up to Ø32 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	LF [mm]	HF [mm]	LFA [mm]	LAMS [°]	GAMO [°]		kg		
R	**A20S-SVLCR 13-X**	20	27	15	18	250	9	15	-4	-2	✓	0.57	GI211	SV21
	A25T-SVLCR 13-X	25	35	20	24	300	12	18	-2	-2	✓	1.01	GI211	SV22
	A32T-SVLCR 13-X	32	43	25	30	300	15	18	-1	-2	✓	1.75	GI211	SV22
L	**A20S-SVLCL 13-X**	20	27	15	18	250	9	15	-4	-2	✓	0.57	GI211	SV21
	A25T-SVLCL 13-X	25	35	20	24	300	12	18	-2	-2	✓	0.05	GI211	SV22
	A32T-SVLCL 13-X	32	43	25	30	300	15	18	-1	-2	✓	1.75	GI211	SV22

GI211	VC.. 1303..

		Nm						
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVQB(C)(RL) INT

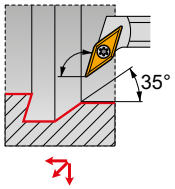
P M K N S H

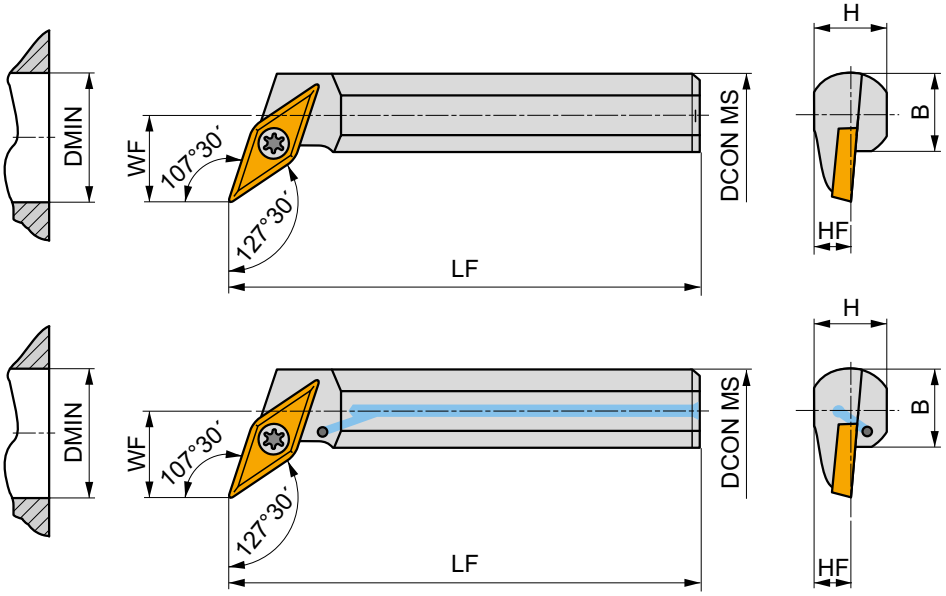
PRAMET

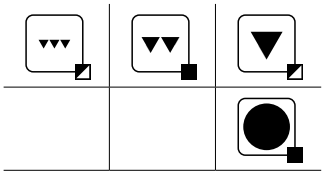
S

Internal Screw Lock Boring Bar with 107.5° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant available, with 107.5° cutting angle for screw type VB../VC.. 11 and 16 inserts. Minimum internal turning diameter Ø20 mm. Suited for a wide range of internal turning operations. Available with shank size Ø16 up to Ø40 mm.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16R-SVQBR 11	16	20	11	14.5	15	200	-5	0	✓	0.33	GI194	S01
	A20S-SVQBR 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A16R-SVQCR 13	16	21	11	15	15	200	-6	0	✓	0.30	GI211	SV21
	A20S-SVQCR 13	20	25	13	18	18.5	250	-4	0	✓	0.12	GI211	SV21
	S25T-SVQCR 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVQCR 16	32	40	22	30	30	350	-5	0	–	2.07	GI017	S08
	S40V-SVQCR 16-A	40	50	27	38	38	400	-5	0	–	3.80	GI017	SV10
L	A16R-SVQBL 11	16	20	11	14.5	15	200	-5	0	✓	0.33	GI194	S01
	A20S-SVQBL 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A16R-SVQCL 13	16	21	11	15	15	200	-6	0	✓	0.29	GI211	SV21
	A20S-SVQCL 13	20	25	13	18	18.5	250	-4	0	✓	0.54	GI211	SV21
	S25T-SVQCL 16	25	32	17	23	23	300	-7	0	–	1.09	GI017	S08
	S32U-SVQCL 16	32	40	22	30	30	350	-5	0	–	2.07	GI017	S08
	S40V-SVQCL 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–

SVUB(C)(RL) INT

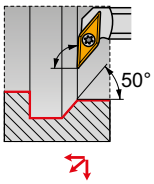
P M K N S H

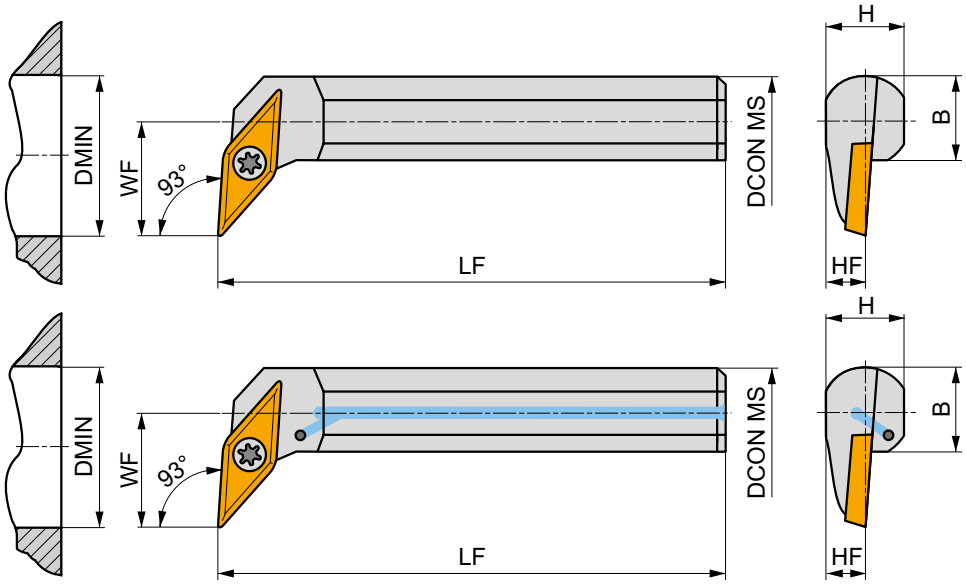
PRAMET

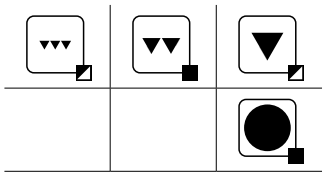
S

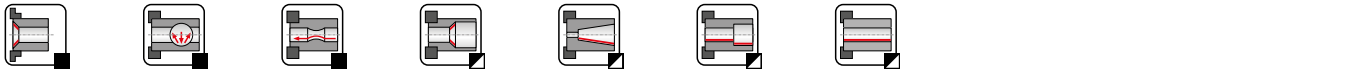
Internal Screw Lock Boring Bar with 93° Cutting Angle for VB/VC.. Inserts

Internal Right/Left hand boring bar, through coolant available, with 93° cutting angle for screw type VB../VC.. 11 and 16 inserts. Minimum internal turning diameter Ø20 mm. For a wide range of internal turning operations and copying under 50°. Ø16 up to Ø40 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16R-SVUBR 11	16	20	11	14.5	15	200	-5	0	✓	0.34	GI194	S01
	A20S-SVUBR 11	20	25	13	18	18.8	250	-4	0	✓	0.58	GI194	S01
	A20S-SVUCR 13	20	25	13	19	18.5	250	-4	2	✓	0.40	GI211	SV21
	A25T-SVUCR 13	25	32	17	24	23	300	-2	2	✓	0.96	GI211	SV22
	A32T-SVUCR 13	32	40	22	30	30	300	-1	2	✓	1.70	GI211	SV22
	S25T-SVUCR 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVUCR 16	32	40	22	30	30	350	-5	0	–	2.10	GI017	S08
	S40V-SVUCR 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10
L	A16R-SVUBL 11	16	20	11	14.5	15	200	-5	0	✓	0.34	GI194	S01
	A20S-SVUBL 11	20	25	13	18	18.5	250	-4	0	✓	0.58	GI194	S01
	A20S-SVUCL 13	20	25	13	19	18.5	250	-4	2	✓	0.32	GI211	SV21
	A25T-SVUCL 13	25	32	17	24	23	300	-2	2	✓	0.96	GI211	SV22
	A32T-SVUCL 13	32	40	22	30	30	300	-1	2	✓	1.70	GI211	SV22
	S25T-SVUCL 16	25	32	17	23	23	300	-7	0	–	1.10	GI017	S08
	S32U-SVUCL 16	32	40	22	30	30	350	-5	0	–	2.10	GI017	S08
	S40V-SVUCL 16-A	40	50	27	38	38	400	-5	0	–	4.10	GI017	SV10

GI017	VB.. 1604..	VC.. 1604..
GI194	VB.. 1103..	VC.. 1103..
GI211	–	VC.. 1303..

		Nm						
S01	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–
S08	US 3510-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–
SV10	US 3512-T15P	3.0	M 3.5	12.6	SVN 160304	MS 3510	FLAG T15P	HXK 3.5
SV21	5513 020-24	1.5	M 3	8.5	–	–	PT-8002	–
SV22	DVF 0573	1.5	M 3	10.3	DAP 0331	DVT 0332	PT-8002	174.1-870

SVXC(RL) INT

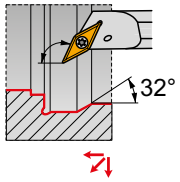
P M K N S H

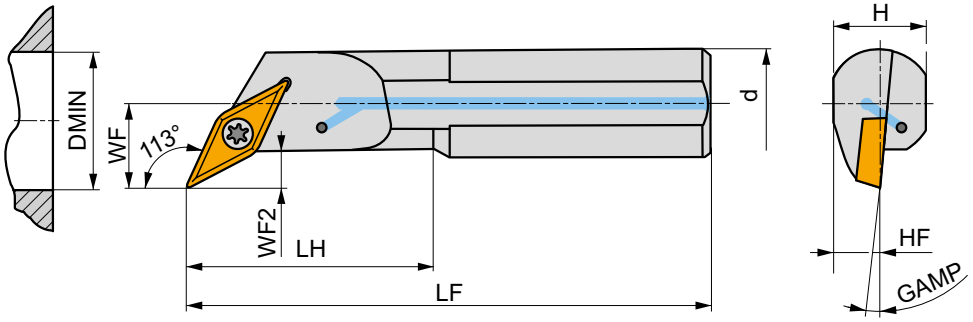
PRAMET

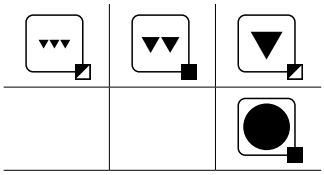
S

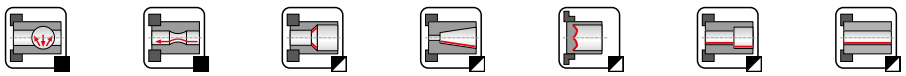
Internal Screw Lock Boring Bar with 113° Cutting Angle for VC.. Insert

Internal Right/Left hand boring bar, through coolant, with 113° cutting angle for screw type VC.. 07 inserts. Minimum internal turning diameter Ø12.5 mm. Suited for a wide range of internal turning operations and copying under 32° . Available with shank size Ø10 up to Ø16 mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	LF [mm]	HF [mm]	LH [mm]	WF2 [mm]	GAMP [°]		kg		
R	A10H-SVXCR 07	10	12.5	7	9	100	4.5	22	3	-10	✓	0.06	GI234	SV23
	A12K-SVXCR 07	12	15.5	9	11	125	5.5	28	3	-8	✓	0.11	GI234	SV23
	A16M-SVXCR 07	16	17.5	11	15	150	7.5	36	3	-6	✓	0.19	GI234	SV23
L	A10H-SVXCL 07	10	12.5	7	9	100	4.5	22	3	-10	✓	0.06	GI234	SV23
	A12K-SVXCL 07	12	15.5	9	11	125	5.5	28	3	-8	✓	0.11	GI234	SV23
	A16M-SVXCL 07	16	17.5	11	15	150	7.5	36	3	-6	✓	0.20	GI234	SV23

GI234	VC.. 0702..

SV23	DVF 3584	0.6 Nm	M 2	5.5	DMD 1650

SVXC(RL)-E INT

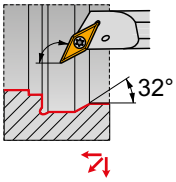
P M K N S H

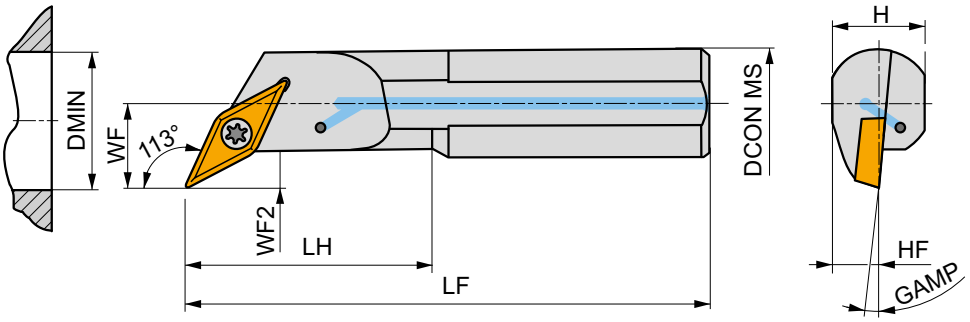
PRAMET

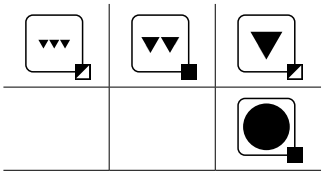
S

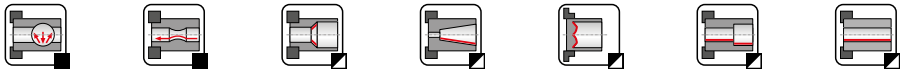
Internal Carbide Screw Lock Boring Bar, 113° Cutting Angle for VC.. Insert

Internal Right/Left hand carbide boring bar, through coolant, with 113° cutting angle for screw type VC.. 07 inserts. Minimum internal turning diameter Ø12.5 mm. Suited for a wide range of internal turning operations and copying under 32° . Available with shank size Ø10 up to Ø16 mm. For tool overhang >3xD.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	WF2 [mm]	GAMP [°]		kg		
R	**E10H-SVXCR 07**	10	12.5	7	9	4.5	100	22	3	-10	✓	0.10	GI234	SV23
	E12K-SVXCR 07	12	15.5	9	11	5.5	125	28	3	-8	✓	0.19	GI234	SV23
	E16M-SVXCR 07	16	17.5	11	15	7.5	150	36	3	-6	✓	0.33	GI234	SV23
L	**E10H-SVXCL 07**	10	12.5	7	9	4.5	100	22	3	-10	✓	0.10	GI234	SV23
	E12K-SVXCL 07	12	15.5	9	11	5.5	125	28	3	-8	✓	0.19	GI234	SV23
	E16M-SVXCL 07	16	17.5	11	15	7.5	150	36	3	-6	✓	0.33	GI234	SV23

GI234	VC.. 0702..

		Nm			
SV23	DVF 3584	0.6	M 2	5.5	DMD 1650

C.-SVQB(RL) INT

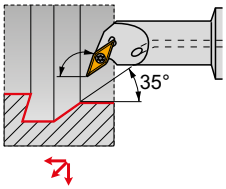
P M K N S H

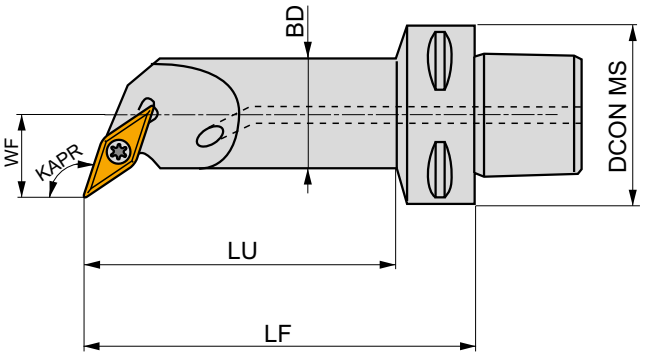
PRAMET

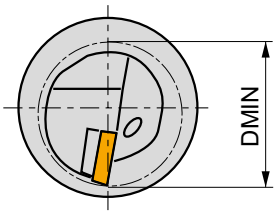
S

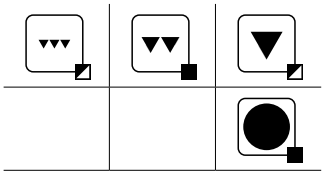
Int. PSC Quick Change Tool, Screw Lock, 107.5° Cutting Angle, VB/VC.. Inserts

Internal Right/Left hand tool, through coolant, with 107.5° cutting angle for screw type VB.. 16 or VC.. 16 inserts. Minimum internal turning diameter Ø33 mm. Suited for a wide range of internal turning operations. PSC shank (Polygon Shank Coupling) size C4 and C5 with choice of lengths. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-SVQBR-18090-16	40	33	18	90	68	25	107.5	-7.2	0	✓	0.48	GI017	SV16
	C5-SVQBR-18090-16	50	33	18	90	67	25	107.5	-7.2	0	✓	0.67	GI017	SV16
L	C4-SVQBL-18090-16	40	33	18	90	68	25	107.5	-7.2	0	✓	0.48	GI017	SV16
	C5-SVQBL-18090-16	50	33	18	90	67	25	107.5	-7.2	0	✓	0.68	GI017	SV16

GI017	VB.. 1604..	VC.. 1604..

		Nm			
SV16	US 2010-T15P	3.0	M 3.5	10.1	FLAG T15P/3,5

WC

02/ 06/ 08/ 16

CARBIDE INSERTS

WCGT

212

WCGX

213

WCMT

213

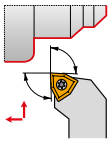
MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
WCGT 020102E-FF2	A0508H-SWUCR 02

ISO TURNING – EXTERNAL

SWLC(RL) EXT

95°



WC..

06
08

16×16
25×25

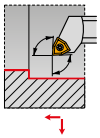
215

212 – 214

ISO TURNING – INTERNAL

SWLC(RL) INT

95°



WC..

06
08

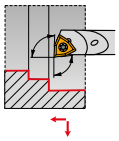
ØDmin 25 / 40

216

212 – 214

SWUC(RL) INT

93°



WC..

02

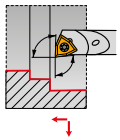
ØDmin 5,8 / 7,8

217

212 – 214

SWUC(RL)-E INT

93°



WC..

02

ØDmin 5,8 / 7,8

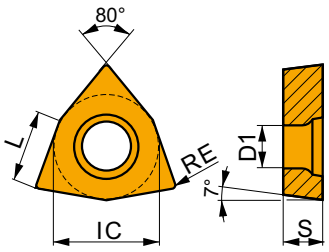
218

212 – 214

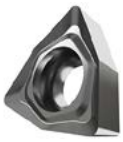
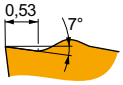
WCGT

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0201	3.970	2.20	2.70	1.59
06T3	9.525	4.40	6.50	3.97
0804	12.700	5.50	8.70	4.76



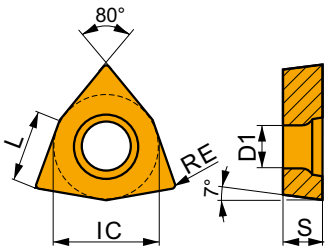
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
			F																	
AL geometry with highly positive design for fine-finish to rough machining, and continuous to slightly interrupted cuts.																				
WCGT 06T302F-AL	**HF7**	0.2	–	–	–	–	–	–	–	–	–	■ 450	0.12	1.0	–	–	–	–	–	–
WCGT 06T304F-AL	**HF7**	0.4	–	–	–	–	–	–	–	–	–	■ 360	0.24	1.0	–	–	–	–	–	–
	T0315	0.4	–	–	–	–	–	–	–	–	–	■ 525	0.24	1.0	–	–	–	–	–	–
WCGT 06T308F-AL	**HF7**	0.8	–	–	–	–	–	–	–	–	–	■ 315	0.48	1.5	–	–	–	–	–	–
WCGT 080412F-AL	**HF7**	1.2	–	–	–	–	–	–	–	–	–	■ 255	0.72	2.4	–	–	–	–	–	–
	T0315	1.2	–	–	–	–	–	–	–	–	–	■ 375	0.72	2.4	–	–	–	–	–	–
			E																	
FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.																				
WCGT 020102E-FF2	**HF7**	0.2	–	–	–	–	–	–	■ 210	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.2	■ 205	0.05	0.8	–	–	–	■ 190	0.05	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.2	■ 280	0.05	0.8	–	–	–	◪ 230	0.05	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.2	■ 345	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WCGT 020104E-FF2	**HF7**	0.4	–	–	–	–	–	–	■ 155	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.4	■ 170	0.12	0.8	–	–	–	■ 160	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	■ 205	0.12	0.8	–	–	–	◪ 170	0.12	0.8	–	–	–	–	–	–	–	–	–
	TT010	0.4	■ 350	0.06	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

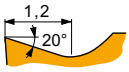
WCGX

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0201	3.970	2.20	2.70	1.59



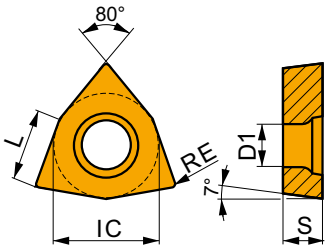
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			 JZ geometry with left-handed design for fine-finish machining, and continuous cuts.																	
WCGX 020102FL-JZ	**TT010**	0.2	■ 330	0.06	0.5	◪ 195	0.05	0.5	–	–	–	–	–	–	–	–	–	–	–	–

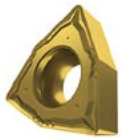
WCMT

PRAMET

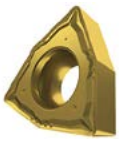
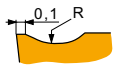
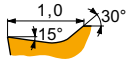
	IC [mm]	D1 [mm]	L [mm]	S [mm]
06T3	9.525	4.40	6.50	3.97
0804	12.700	5.50	8.70	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			 FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
WCMT 06T304E-FM	**T7325**	0.4	◪ 195	0.15	1.2	■ 150	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.4	◪ 190	0.15	1.2	■ 145	0.15	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 180	0.15	1.2	■ 105	0.14	1.2	◪ 170	0.15	1.2	◪ 540	0.18	1.2	–	–	–	–	–	–
	T8330	0.4	■ 170	0.15	1.2	■ 100	0.14	1.2	◪ 160	0.15	1.2	◪ 510	0.18	1.2	–	–	–	–	–	–
	T8430	0.4	■ 200	0.15	1.2	■ 110	0.14	1.2	◪ 165	0.15	1.2	◪ 555	0.18	1.2	–	–	–	–	–	–
	T9315	0.4	■ 275	0.15	1.2	–	–	–	◪ 260	0.15	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 245	0.15	1.2	■ 145	0.15	1.2	◪ 230	0.15	1.2	–	–	–	–	–	–	–	–	–
WCMT 06T308E-FM	**T7325**	0.8	◪ 215	0.20	1.2	■ 165	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 205	0.20	1.2	■ 155	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 195	0.20	1.2	■ 115	0.18	1.2	◪ 185	0.20	1.2	◪ 585	0.24	1.2	–	–	–	–	–	–
	T8330	0.8	■ 185	0.20	1.2	■ 110	0.18	1.2	◪ 175	0.20	1.2	◪ 555	0.24	1.2	–	–	–	–	–	–
	T8430	0.8	■ 210	0.20	1.2	■ 115	0.18	1.2	◪ 175	0.20	1.2	◪ 585	0.24	1.2	–	–	–	–	–	–
	T9315	0.8	■ 290	0.20	1.2	–	–	–	◪ 275	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 260	0.20	1.2	■ 155	0.18	1.2	◪ 245	0.20	1.2	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
WCMT 080404E-FM	**T7325**	0.4	◪ 190	0.15	1.7	■ 145	0.15	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪ 170	0.15	1.7	■ 100	0.14	1.7	◪ 160	0.15	1.7	◪ 510	0.18	1.7	–	–	–	–	–	–
	T8330	0.4	■ 165	0.15	1.7	■ 95	0.14	1.7	◪ 155	0.15	1.7	◪ 495	0.18	1.7	–	–	–	–	–	–
	T8430	0.4	■ 195	0.15	1.7	■ 105	0.14	1.7	◪ 160	0.15	1.7	◪ 540	0.18	1.7	–	–	–	–	–	–
	T9315	0.4	■ 265	0.15	1.7	–	–	–	◪ 250	0.15	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 240	0.15	1.7	■ 140	0.15	1.7	◪ 225	0.15	1.7	–	–	–	–	–	–	–	–	–
WCMT 080408E-FM	**T7325**	0.8	◪ 205	0.20	1.7	■ 155	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 200	0.20	1.7	■ 155	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 190	0.20	1.7	■ 110	0.18	1.7	◪ 180	0.20	1.7	◪ 570	0.24	1.7	–	–	–	–	–	–
	T8330	0.8	■ 180	0.20	1.7	■ 105	0.18	1.7	◪ 170	0.20	1.7	◪ 540	0.24	1.7	–	–	–	–	–	–
	T8430	0.8	■ 205	0.20	1.7	■ 110	0.18	1.7	◪ 170	0.20	1.7	◪ 570	0.24	1.7	–	–	–	–	–	–
	T9315	0.8	■ 280	0.20	1.7	–	–	–	◪ 265	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 250	0.20	1.7	■ 150	0.18	1.7	◪ 235	0.20	1.7	–	–	–	–	–	–	–	–	–
WCMT 080412E-FM	**T8330**	1.2	■ 175	0.27	1.7	■ 105	0.24	1.7	◪ 165	0.27	1.7	◪ 525	0.32	1.7	–	–	–	–	–	–
	T8430	1.2	■ 190	0.27	1.7	■ 105	0.24	1.7	◪ 155	0.27	1.7	◪ 525	0.32	1.7	–	–	–	–	–	–
	T9325	1.2	■ 235	0.27	1.7	■ 140	0.24	1.7	◪ 220	0.27	1.7	–	–	–	–	–	–	–	–	–
	 I.C. / R: 9,525 / 1,5; 12,7 / 2,5																			
			RF geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WCMT 06T308E-RF	**T7335**	0.8	◪ 165	0.20	1.5	◪ 125	0.18	1.5	–	–	–	–	–	–	–	–	–	–	–	–
WCMT 080412E-RF	**T7335**	1.2	◪ 160	0.22	2.2	◪ 120	0.22	2.2	–	–	–	–	–	–	–	–	–	–	–	–
																				
			UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.																	
WCMT 06T308E-UR	**T7325**	0.8	◪ 185	0.20	1.2	◪ 140	0.18	1.2	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 250	0.20	1.2	–	–	–	◪ 235	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 225	0.20	1.2	◪ 135	0.18	1.2	◪ 210	0.20	1.2	–	–	–	–	–	–	–	–	–

SWLC(RL) EXT

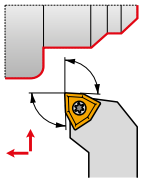
P M K N S H

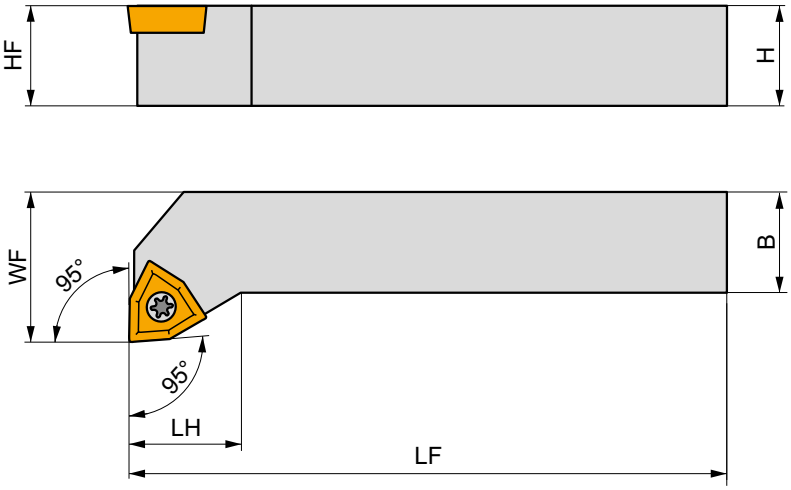
PRAMET

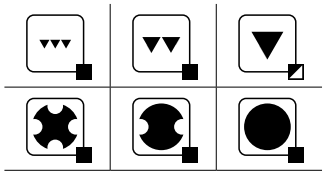
S

External Screw Lock Tool Holder with 95° Cutting Angle for WC.. Insert

External Right/Left hand tool holder for screw type positive screw type WC.. 06 or 08 inserts. Suited for face and longitudinal turning with shoulder, taper and chamfer turning. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	SWLCR 1616 H 06	16	16	16	20	100	15	0	0	0.24	GI055	S04
	SWLCR 2020 K 06	20	20	20	25	125	15	0	0	0.40	GI055	S04
	SWLCR 2525 M 08	25	25	25	32	150	20	0	0	0.77	GI049	S09
L	SWLCL 1616 H 06	16	16	16	20	100	15	0	0	0.23	GI055	S04
	SWLCL 2020 K 06	20	20	20	25	125	15	0	0	0.40	GI055	S04
	SWLCL 2525 M 08	25	25	25	32	150	20	0	0	0.75	GI049	S09

GI049	WC.. 0804..
GI055	WC.. 06T3..

		Nm			
S04	US 3510-T15P	3.0	M 3.5	10.6	FLAG T15P
S09	US 4512-T15P	5.0	M 4.5	12.2	FLAG T15P

SWLC(RL) INT

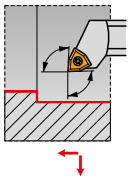
P M K N S H

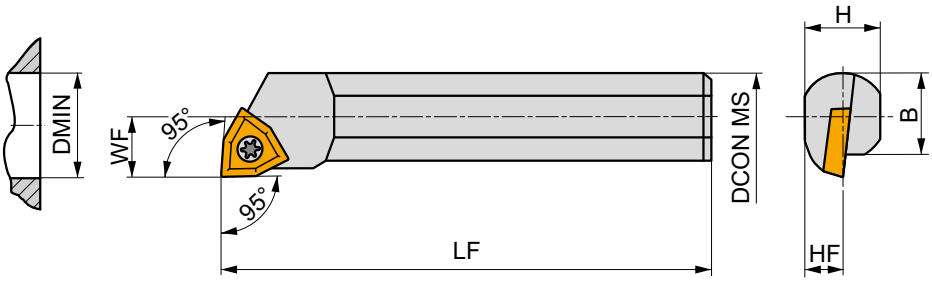
PRAMET

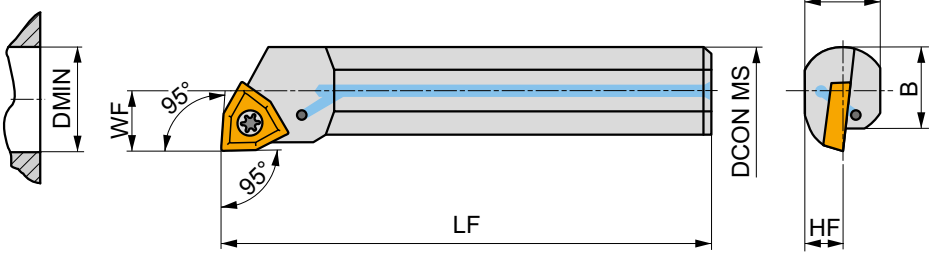
S

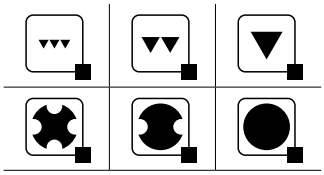
Internal Screw Lock Boring Bar with 95° Cutting Angle for WC.. Insert

Internal Right/Left hand boring bar, through coolant available, 95° cutting angle for screw type WC.. 06 and 08 inserts. Minimum internal turning diameter Ø25 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø20 to Ø32mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A20Q-SWLCR 06	20	25	13	18	18.5	180	-7	0	✓	0.37	GI055	S04
	S20S-SWLCR 06	20	25	13	18	18.5	250	-7	0	–	0.62	GI055	S04
	A25R-SWLCR 06	25	32	17	23	23	200	-7	0	✓	0.70	GI055	S04
	S25T-SWLCR 06	25	32	17	23	23	300	-7	0	–	1.15	GI055	S04
	A25R-SWLCR 08	25	32	17	23	23	200	-7	0	✓	0.70	GI049	S04
	A32S-SWLCR 08	32	40	22	30	30	250	-5	0	✓	1.32	GI049	S09
	S32U-SWLCR 08	32	40	22	30	30	350	-5	0	–	2.05	GI049	S09
L	A20Q-SWLCL 06	20	25	13	18	18.5	180	-7	0	✓	0.00	GI055	S04
	S20S-SWLCL 06	20	25	13	18	18.5	250	-7	0	–	0.60	GI055	S04
	A25R-SWLCL 06	25	32	17	23	23	200	-7	0	✓	0.70	GI055	S04
	S25T-SWLCL 06	25	32	17	23	23	300	-7	0	–	1.15	GI055	S04
	A25R-SWLCL 08	25	32	17	23	23	200	-7	0	✓	0.70	GI049	S04
	A32S-SWLCL 08	32	40	22	30	30	250	-5	0	✓	1.32	GI049	S09
	S32U-SWLCL 08	32	40	22	30	30	350	-5	0	–	4.10	GI049	S09

GI049	WC.. 0804..
GI055	WC.. 06T3..

		Nm			
S04	US 3510-T15P	3.0	M 3.5	10.6	FLAG T15P
S09	US 4512-T15P	5.0	M 4.5	12.2	FLAG T15P

SWUC(RL) INT

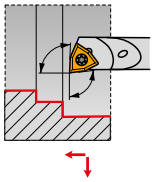
P M K N S H

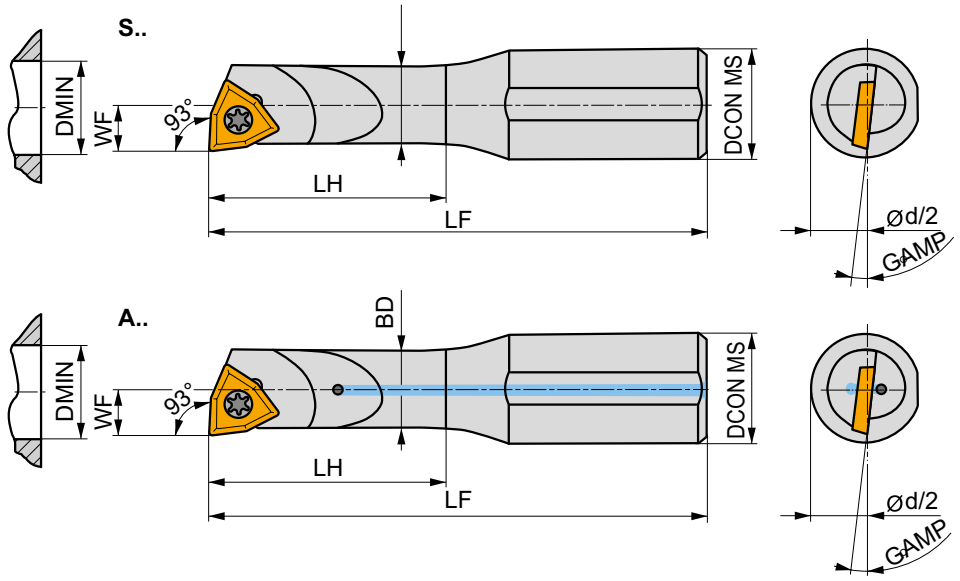
PRAMET

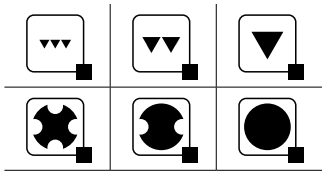
S

Internal Screw Lock Boring Bar with 93° Cutting Angle for WC.. Insert

Internal Right/Left hand boring bar, through coolant available, 93° cutting angle for screw type WC.. 0201 inserts. Minimum internal turning diameter Ø5.8 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø8 mm only. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	GAMP [°]		kg		
R	A0508H-SWUCR 02	8	5.8	5	2.9	100	18	-17	✓	0.09	GI221	SW21
	S0508H-SWUCR 02	8	5.8	5	2.9	100	18	-17	–	0.04	GI221	SW21
	A0608H-SWUCR 02	8	7.8	6	3.9	100	24	-12	✓	0.04	GI221	SW21
	S0608H-SWUCR 02	8	7.8	6	3.9	100	24	-12	–	0.04	GI221	SW21
L	A0508H-SWUCL 02	8	5.8	5	2.9	100	18	-17	✓	0.04	GI221	SW21
	S0508H-SWUCL 02	8	5.8	5	2.9	100	18	-17	–	0.04	GI221	SW21
	A0608H-SWUCL 02	8	7.8	6	3.9	100	24	-12	✓	0.04	GI221	SW21
	S0608H-SWUCL 02	8	7.8	6	3.9	100	24	-12	–	0.04	GI221	SW21

GI221	WC.. 0201..

SW21	T20.037	0.6	M 2	3.7	DMD 1650

SWUC(RL)-E INT

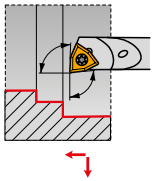
P M K N S H

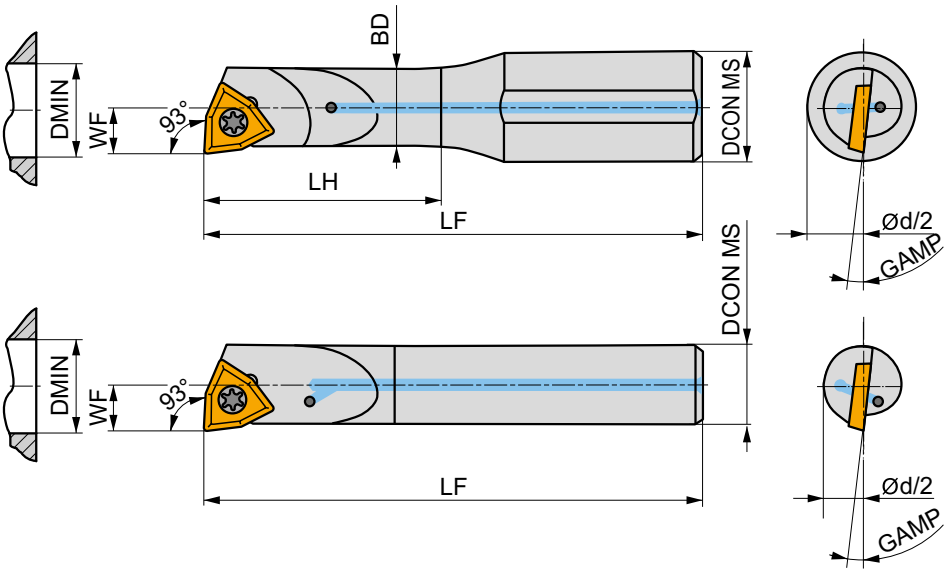
PRAMET

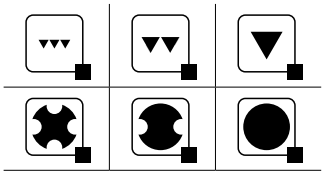
S

Internal carbide Screw Lock Boring Bar with 93° Cutting Angle for WC.. Insert

Internal Right/Left hand carbide boring bar, through coolant, with 93° cutting angle for screw type WC.. 0201 inserts. Minimum internal turning diameter Ø5.8 mm. Suited for internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø5 up to Ø8 mm. For tool overhang >3xD.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	LF [mm]	LH [mm]	GAMP [°]		kg		
R	E0508H-SWUCR 02	8	5.8	5	2.9	100	24	-17	✓	0.06	GI221	SW21
	E05F-SWUCR 02	5	5.8	–	2.9	85	–	-17	✓	0.03	GI221	SW21
	E0608H-SWUCR 02	8	7.8	6	3.9	100	32	-12	✓	0.06	GI221	SW21
	E06G-SWUCR 02	6	7.8	–	3.9	95	–	-12	✓	0.04	GI221	SW21
L	E0508H-SWUCL 02	8	5.8	5	2.9	100	24	-17	✓	0.07	GI221	SW21
	E05F-SWUCL 02	5	5.8	–	2.9	85	–	-17	✓	0.03	GI221	SW21
	E0608H-SWUCL 02	8	7.8	6	3.9	100	32	-12	✓	0.06	GI221	SW21
	E06G-SWUCL 02	6	7.8	–	3.9	95	–	-12	✓	0.04	GI221	SW21

GI221	WC.. 0201..

		Nm			
SW21	T20.037	0.6	M 2	3.7	DMD 1650

NEGATIVE INSERTS

CN

09/ 12/ 16/ 19/ 25

CARBIDE INSERTS

CNGG

222

CNMA

222

CNMG

223

CNMM

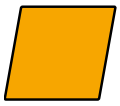
234

CER AND CBN INSERTS

CNGA CER

238

CNGN CER



238

CNGA CBN

239

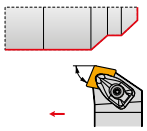
MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
CNMM 120412E-OR	DCBNR 2525 M 12

ISO TURNING – EXTERNAL

DCBN(RL) EXT

75°



CN..

12
16
19

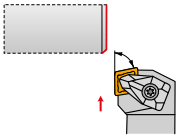
20×20
40×40

240

222 – 239

DCKN(RL) EXT

75°



CN..

12
16

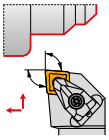
20×20
32×32

242

222 – 239

DCLN(RL) EXT

95°



CN..

09
12
16
19

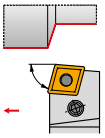
16×16
40×40

243

222 – 239

PCBN(RL) EXT

75°



CN..

12
16
19
25

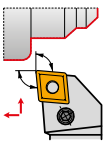
20×20
50×50

245

222 – 239

PCLN(RL) EXT

95°



CN..

12
16
19
25

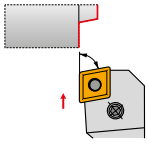
20×20
50×50

247

222 – 239

PCKN(RL) EXT

75°



CN..

12
16
19

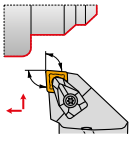
20×20
40×40

246

222 – 239

C.-DCLN(RL) EXT

95°



CN..

12
16
19

C3
C8

249

222 – 239

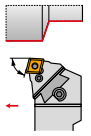
CN

09/ 12/ 16/ 19/ 25

ISO TURNING – HEAVY ROUGHING – EXTERNAL

KHP-CBNR + DKH(RL)

75°



40×50
60×80

CN..

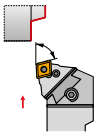
25

251, 253

222 – 239

KHP-CBNL + DKH(RL)

75°



40×50
60×80

CN..

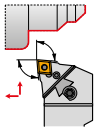
25

251, 253

222 – 239

KHP-CLNR/L + DKH(RL)

95°



40×50
60×80

CN..

19
25

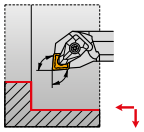
252, 253

222 – 239

ISO TURNING – INTERNAL

DCLN(RL) INT

95°



32
50

CN..

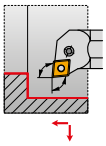
09
12

254

222 – 239

PCLN(RL) INT

95°



20
80

CN..

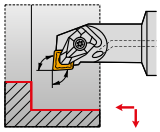
09
12
16
19

255

222 – 239

C.-DCLN(RL) INT

95°



25
50

CN..

09
12
16

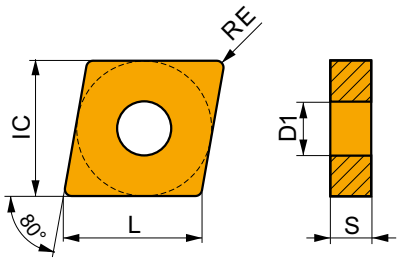
257

222 – 239

CNGG

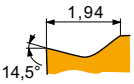
PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.90	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
CNGG 120402E-SF	**H07**	0.2	–	–	–	105	0.09	1.0	165	0.10	1.0	525	0.12	1.0	50	0.08	0.8	–	–	–
	T6310	0.2	195	0.10	1.0	140	0.09	1.0	155	0.10	1.0	585	0.12	1.0	55	0.08	0.8	35	0.15	1.0
	T8315	0.2	205	0.10	1.0	120	0.09	1.0	190	0.10	1.0	615	0.12	1.0	50	0.08	0.8	40	0.15	1.0
	T8330	0.2	195	0.10	1.0	115	0.09	1.0	185	0.10	1.0	585	0.12	1.0	45	0.08	0.8	35	0.15	1.0
	T8430	0.2	240	0.10	1.0	130	0.09	1.0	195	0.10	1.0	660	0.12	1.0	50	0.08	0.8	40	0.15	1.0

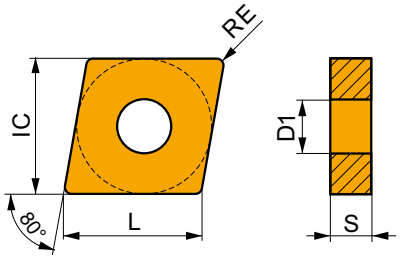


SF geometry with positive design for fine-finish machining of thin walls in continuous cuts.

CNMA

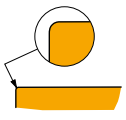
PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.90	4.76
1606	15.875	6.35	16.10	6.35
1906	19.050	7.94	19.30	6.35



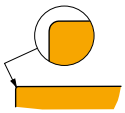
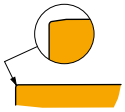
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc	M f	M ap	K vc	K f	K ap	N vc	N f	N ap	S vc	S f	S ap	H vc	H f	H ap
CNMA 120404	**T5305**	0.4	–	–	–	–	–	–	235	0.10	4.0	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	200	0.10	4.0	–	–	–	–	–	–	40	0.15	1.0
CNMA 120408	**T5305**	0.8	–	–	–	–	–	–	220	0.20	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	190	0.20	4.0	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	100	0.20	4.0	–	–	–	–	–	–	25	0.15	1.0
CNMA 120412	**T5305**	1.2	–	–	–	–	–	–	195	0.30	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	180	0.30	4.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	1.2	–	–	–	–	–	–	95	0.30	4.0	–	–	–	–	–	–	20	0.15	1.0
CNMA 120416	**T5305**	1.6	–	–	–	–	–	–	190	0.40	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.6	–	–	–	–	–	–	170	0.40	4.0	–	–	–	–	–	–	35	0.15	1.0



For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.

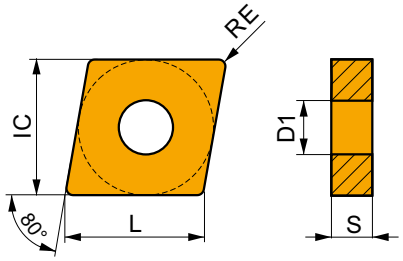
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
CNMA 160612	**T5305**	1.2	–	–	–	–	–	–	■	190	0.30	5.0	–	–	–	–	–	–	◪	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	■	175	0.30	5.0	–	–	–	–	–	–	◪	35	0.15	1.0
	T6310	1.2	–	–	–	–	–	–	■	90	0.30	5.0	–	–	–	–	–	–	◪	20	0.15	1.0
CNMA 160616	**T5305**	1.6	–	–	–	–	–	–	■	185	0.40	5.0	–	–	–	–	–	–	◪	35	0.15	1.0
	T5315	1.6	–	–	–	–	–	–	■	165	0.40	5.0	–	–	–	–	–	–	◪	35	0.15	1.0
CNMA 190612	**T5305**	1.2	–	–	–	–	–	–	■	190	0.30	6.0	–	–	–	–	–	–	◪	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	■	170	0.30	6.0	–	–	–	–	–	–	◪	35	0.15	1.0
	T6310	1.2	–	–	–	–	–	–	■	85	0.30	6.0	–	–	–	–	–	–	◪	20	0.15	1.0
CNMA 190616	**T5305**	1.6	–	–	–	–	–	–	■	180	0.40	6.0	–	–	–	–	–	–	◪	35	0.15	1.0
	T5315	1.6	–	–	–	–	–	–	■	160	0.40	6.0	–	–	–	–	–	–	◪	30	0.15	1.0
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
CNMA 120408S	**T5305**	0.8	–	–	–	–	–	–	■	220	0.20	4.0	–	–	–	–	–	–	◪	45	0.15	1.0
CNMA 120412S	**T5305**	1.2	–	–	–	–	–	–	■	190	0.40	4.0	–	–	–	–	–	–	◪	40	0.15	1.0
CNMA 160612S	**T5305**	1.2	–	–	–	–	–	–	■	190	0.30	5.0	–	–	–	–	–	–	◪	40	0.15	1.0
CNMA 190616S	**T5305**	1.6	–	–	–	–	–	–	■	180	0.40	6.0	–	–	–	–	–	–	◪	35	0.15	1.0

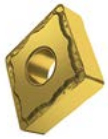
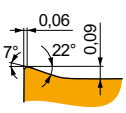
CNMG

PRAMET

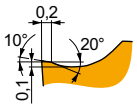
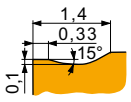
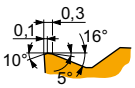
	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
0903	9.525	3.81	9.70	3.18
1204	12.700	5.16	12.90	4.76
1606	15.880	6.35	16.10	6.35
1906	19.050	7.94	19.30	6.35
2509	25.400	9.12	25.80	9.53



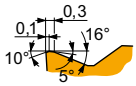
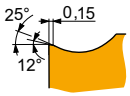
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			FF geometry with highly positive design for fine-finish machining, and continuous to slightly interrupted cuts.																	
CNMG 120404E-FF	**T7325**	0.4	◪	235	0.12	1.0	■	180	0.11	1.0		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	◪	220	0.12	1.0	■	130	0.11	1.0	◪	205	0.12	1.0	–	–	–	–	–	–	–	–	–
CNMG 120408E-FF	**T7325**	0.8	◪	265	0.15	1.0	■	205	0.14	1.0		–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪	245	0.15	1.0	■	145	0.14	1.0	◪	230	0.15	1.0	–	–	–	–	–	–	–	–	–

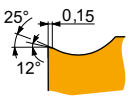
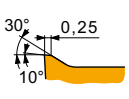
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
CNMG 090304E-FM	**T7325**	0.4	195	0.20	1.4	150	0.18	1.4	–	–	–	–	–	–	60	0.16	1.1	–	–	–
	T8330	0.4	175	0.20	1.4	105	0.18	1.4	165	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T8430	0.4	195	0.20	1.4	105	0.18	1.4	160	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T9315	0.4	265	0.20	1.4	–	–	–	250	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	1.4	140	0.18	1.4	225	0.20	1.4	–	–	–	50	0.16	1.1	–	–	–
CNMG 090308E-FM	**T7325**	0.8	235	0.20	1.4	180	0.18	1.4	–	–	–	–	–	–	75	0.16	1.1	–	–	–
	T8330	0.8	205	0.20	1.4	120	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T8430	0.8	235	0.20	1.4	125	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T9315	0.8	315	0.20	1.4	–	–	–	295	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.8	285	0.20	1.4	170	0.18	1.4	270	0.20	1.4	–	–	–	60	0.16	1.1	–	–	–
CNMG 120404E-FM	**T7325**	0.4	185	0.20	2.1	140	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T7335	0.4	180	0.20	2.1	140	0.18	2.1	–	–	–	–	–	–	55	0.16	1.7	–	–	–
	T8315	0.4	175	0.20	2.1	105	0.18	2.1	165	0.20	2.1	–	–	–	40	0.14	1.7	–	–	–
	T8330	0.4	165	0.20	2.1	95	0.18	2.1	155	0.20	2.1	–	–	–	40	0.14	1.7	–	–	–
	T8430	0.4	190	0.20	2.1	105	0.18	2.1	155	0.20	2.1	–	–	–	40	0.14	1.7	–	–	–
	T9310	0.4	285	0.20	2.1	–	–	–	270	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9315	0.4	255	0.20	2.1	–	–	–	240	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.4	230	0.20	2.1	135	0.18	2.1	215	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
	TT310	0.4	260	0.20	2.1	155	0.18	2.1	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120408E-FM	**T7325**	0.8	220	0.20	2.1	170	0.18	2.1	–	–	–	–	–	–	70	0.16	1.7	–	–	–
	T7335	0.8	215	0.20	2.1	165	0.18	2.1	–	–	–	–	–	–	65	0.16	1.7	–	–	–
	T8315	0.8	205	0.20	2.1	120	0.18	2.1	190	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
	T8330	0.8	195	0.20	2.1	115	0.18	2.1	185	0.20	2.1	–	–	–	45	0.16	1.7	–	–	–
	T8430	0.8	225	0.20	2.1	120	0.18	2.1	185	0.20	2.1	–	–	–	45	0.16	1.7	–	–	–
	T9310	0.8	335	0.20	2.1	–	–	–	315	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9315	0.8	305	0.20	2.1	–	–	–	285	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.8	275	0.20	2.1	165	0.18	2.1	260	0.20	2.1	–	–	–	60	0.16	1.7	–	–	–
	TT310	0.8	310	0.20	2.1	185	0.18	2.1	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120412E-FM	**T7325**	1.2	210	0.27	2.1	160	0.24	2.1	–	–	–	–	–	–	65	0.19	1.7	–	–	–
	T9315	1.2	285	0.27	2.1	–	–	–	270	0.27	2.1	–	–	–	–	–	–	–	–	–
	T9325	1.2	255	0.27	2.1	150	0.24	2.1	240	0.27	2.1	–	–	–	55	0.19	1.7	–	–	–
																				
KR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CNMG 120408E-KR	**T5305**	0.8	255	0.35	4.0	–	–	–	240	0.35	4.0	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.8	225	0.35	4.0	–	–	–	210	0.35	4.0	–	–	–	–	–	–	45	0.15	1.0
CNMG 120412E-KR	**T5305**	1.2	255	0.40	4.0	–	–	–	240	0.40	4.0	–	–	–	–	–	–	50	0.15	1.0
	T5315	1.2	230	0.40	4.0	–	–	–	215	0.40	4.0	–	–	–	–	–	–	45	0.15	1.0
																				
M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																				
CNMG 090308E-M	**T9315**	0.8	230	0.32	1.8	–	–	–	215	0.32	1.8	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	205	0.32	1.8	–	–	–	190	0.32	1.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	180	0.32	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120404E-M	**T5315**	0.4	245	0.20	2.1	–	–	–	230	0.20	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9310	0.4	260	0.20	2.1	–	–	–	245	0.20	2.1	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.4	235	0.20	2.1	–	–	–	220	0.20	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.4	210	0.20	2.1	–	–	–	195	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9335	0.4	180	0.20	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

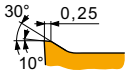
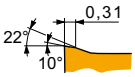
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																	
CNMG 120408E-M	**6640**	0.8	■	165	0.32	2.1	–	–	–	■	155	0.32	2.1	–	–	–	–	–	–	–	–	–
	T5305	0.8	◪	280	0.32	2.1	–	–	–	■	265	0.32	2.1	–	–	–	–	–	–	◪	55	0.15	1.0
	T5315	0.8	◪	250	0.32	2.1	–	–	–	■	235	0.32	2.1	–	–	–	–	–	–	◪	50	0.15	1.0
	T8330	0.8	■	155	0.32	2.1	–	–	–	■	145	0.32	2.1	–	–	–	–	–	–	◪	30	0.15	1.0
	T8430	0.8	■	170	0.32	2.1	–	–	–	◪	135	0.32	2.1	–	–	–	–	–	–	◪	25	0.15	1.0
	T9310	0.8	■	245	0.32	2.1	–	–	–	◪	230	0.32	2.1	–	–	–	–	–	–	◪	45	0.15	1.0
	T9315	0.8	■	225	0.32	2.1	–	–	–	◪	210	0.32	2.1	–	–	–	–	–	–	◪	45	0.15	1.0
	T9325	0.8	■	200	0.32	2.1	–	–	–	◪	190	0.32	2.1	–	–	–	–	–	–		–	–	–
	T9335	0.8	■	180	0.32	2.1	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 120412E-M	**T5305**	1.2	◪	275	0.40	2.1	–	–	–	■	260	0.40	2.1	–	–	–	–	–	–	◪	55	0.15	1.0
	T5315	1.2	◪	245	0.40	2.1	–	–	–	■	230	0.40	2.1	–	–	–	–	–	–	◪	45	0.15	1.0
	T9310	1.2	■	235	0.40	2.1	–	–	–	◪	220	0.40	2.1	–	–	–	–	–	–	◪	45	0.15	1.0
	T9315	1.2	■	220	0.40	2.1	–	–	–	◪	205	0.40	2.1	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	1.2	■	195	0.40	2.1	–	–	–	◪	185	0.40	2.1	–	–	–	–	–	–		–	–	–
	T9335	1.2	■	170	0.40	2.1	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 120416E-M	**T9325**	1.6	■	200	0.40	2.1	–	–	–	◪	190	0.40	2.1	–	–	–	–	–	–		–	–	–
	T9335	1.6	■	175	0.40	2.1	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 160608E-M	**T9310**	0.8	■	235	0.32	3.6	–	–	–	◪	220	0.32	3.6	–	–	–	–	–	–	◪	45	0.15	1.0
	T9315	0.8	■	215	0.32	3.6	–	–	–	◪	200	0.32	3.6	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	0.8	■	190	0.32	3.6	–	–	–	◪	180	0.32	3.6	–	–	–	–	–	–		–	–	–
	T9335	0.8	■	170	0.32	3.6	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 160612E-M	**T9315**	1.2	■	210	0.40	3.6	–	–	–	◪	195	0.40	3.6	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	1.2	■	185	0.40	3.6	–	–	–	◪	175	0.40	3.6	–	–	–	–	–	–		–	–	–
	T9335	1.2	■	160	0.40	3.6	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 160616E-M	**T9325**	1.6	■	190	0.40	3.6	–	–	–	◪	180	0.40	3.6	–	–	–	–	–	–		–	–	–
	T9335	1.6	■	165	0.40	3.6	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 190608E-M	**T9315**	0.8	■	210	0.32	4.2	–	–	–	◪	195	0.32	4.2	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	0.8	■	190	0.32	4.2	–	–	–	◪	180	0.32	4.2	–	–	–	–	–	–		–	–	–
	T9335	0.8	■	165	0.32	4.2	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 190612E-M	**6640**	1.2	■	145	0.40	4.2	–	–	–	■	135	0.40	4.2	–	–	–	–	–	–		–	–	–
	T9310	1.2	■	220	0.40	4.2	–	–	–	◪	205	0.40	4.2	–	–	–	–	–	–	◪	40	0.15	1.0
	T9315	1.2	■	205	0.40	4.2	–	–	–	◪	190	0.40	4.2	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	1.2	■	185	0.40	4.2	–	–	–	◪	175	0.40	4.2	–	–	–	–	–	–		–	–	–
	T9335	1.2	■	160	0.40	4.2	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
CNMG 190616E-M	**T9310**	1.6	■	230	0.40	4.2	–	–	–	◪	215	0.40	4.2	–	–	–	–	–	–	◪	45	0.15	1.0
	T9315	1.6	■	215	0.40	4.2	–	–	–	◪	200	0.40	4.2	–	–	–	–	–	–	◪	40	0.15	1.0
	T9325	1.6	■	190	0.40	4.2	–	–	–	◪	180	0.40	4.2	–	–	–	–	–	–		–	–	–
	T9335	1.6	■	165	0.40	4.2	–	–	–		–	–	–	–	–	–	–	–	–		–	–	–
																				
			NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																	
CNMG 090304E-NF	**T6310**	0.4	■	190	0.17	0.8	■	135	0.15	0.8	◪	150	0.17	0.8	◪	570	0.20	0.8	◪	55	0.12	0.6	–	–	–
	T7335	0.4	◪	210	0.18	0.8	■	160	0.16	0.8		–	–	–		–	–	–	◪	65	0.16	0.6	–	–	–
	T8315	0.4	◪	200	0.17	0.8	■	120	0.15	0.8	◪	190	0.17	0.8	◪	600	0.20	0.8	◪	50	0.12	0.6	–	–	–
	T8430	0.4	■	225	0.17	0.8	■	120	0.15	0.8	◪	185	0.17	0.8	◪	615	0.20	0.8	◪	45	0.12	0.6	–	–	–
	T9325	0.4	■	265	0.18	0.8	■	155	0.16	0.8	◪	250	0.18	0.8		–	–	–	◪	55	0.16	0.6	–	–	–
CNMG 090308E-NF	**T6310**	0.8	■	215	0.19	1.0	■	150	0.17	1.0	◪	170	0.19	1.0	◪	645	0.23	1.0	◪	60	0.15	0.8	–	–	–
	T7335	0.8	◪	240	0.19	1.0	■	185	0.17	1.0		–	–	–		–	–	–	◪	75	0.15	0.8	–	–	–
	T8330	0.8	■	215	0.19	1.0	■	125	0.17	1.0	◪	200	0.19	1.0	◪	645	0.23	1.0	◪	50	0.15	0.8	–	–	–
	T8430	0.8	■	245	0.19	1.0	■	135	0.17	1.0	◪	200	0.19	1.0	◪	675	0.23	1.0	◪	50	0.15	0.8	–	–	–
	T9325	0.8	■	300	0.19	1.0	■	180	0.17	1.0	◪	285	0.19	1.0		–	–	–	◪	65	0.15	0.8	–	–	–

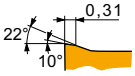
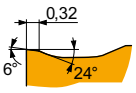
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
CNMG 120404E-NF	**HF7**	0.4	–	–	–	95	0.15	1.7	155	0.17	1.7	495	0.20	1.7	–	–	–	–	–	–
	T6310	0.4	180	0.17	1.7	125	0.15	1.7	145	0.17	1.7	540	0.20	1.7	50	0.14	1.4	–	–	–
	T7325	0.4	200	0.18	1.7	155	0.16	1.7	–	–	–	–	–	–	65	0.16	1.4	–	–	–
	T7335	0.4	195	0.18	1.7	150	0.16	1.7	–	–	–	–	–	–	60	0.16	1.4	–	–	–
	T8315	0.4	185	0.17	1.7	110	0.15	1.7	175	0.17	1.7	555	0.20	1.7	45	0.14	1.4	–	–	–
	T8330	0.4	180	0.17	1.7	105	0.15	1.7	170	0.17	1.7	540	0.20	1.7	45	0.14	1.4	–	–	–
	T8430	0.4	200	0.17	1.7	110	0.15	1.7	165	0.17	1.7	555	0.20	1.7	40	0.14	1.4	–	–	–
	T9315	0.4	285	0.17	1.7	–	–	–	270	0.17	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	250	0.18	1.7	150	0.16	1.7	235	0.18	1.7	–	–	–	55	0.16	1.4	–	–	–
CNMG 120408E-NF	**HF7**	0.8	–	–	–	110	0.17	1.7	180	0.19	1.7	570	0.23	1.7	–	–	–	–	–	–
	T6310	0.8	200	0.19	1.7	140	0.17	1.7	160	0.19	1.7	600	0.23	1.7	60	0.15	1.4	–	–	–
	T7325	0.8	235	0.19	1.7	180	0.17	1.7	–	–	–	–	–	–	75	0.15	1.4	–	–	–
	T7335	0.8	225	0.19	1.7	175	0.17	1.7	–	–	–	–	–	–	70	0.15	1.4	–	–	–
	T8315	0.8	215	0.19	1.7	125	0.17	1.7	200	0.19	1.7	645	0.23	1.7	50	0.15	1.4	–	–	–
	T8330	0.8	200	0.19	1.7	120	0.17	1.7	190	0.19	1.7	600	0.23	1.7	50	0.15	1.4	–	–	–
	T8430	0.8	235	0.19	1.7	125	0.17	1.7	190	0.19	1.7	645	0.23	1.7	50	0.15	1.4	–	–	–
	T9315	0.8	320	0.19	1.7	–	–	–	300	0.19	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	285	0.19	1.7	170	0.17	1.7	270	0.19	1.7	–	–	–	60	0.15	1.4	–	–	–
CNMG 120412E-NF	**T6310**	1.2	185	0.30	2.1	130	0.27	2.1	145	0.30	2.1	555	0.36	2.1	55	0.21	1.7	–	–	–
	T7325	1.2	205	0.30	2.1	155	0.27	2.1	–	–	–	–	–	–	65	0.21	1.7	–	–	–
	T7335	1.2	200	0.30	2.1	155	0.27	2.1	–	–	–	–	–	–	65	0.21	1.7	–	–	–
	T8330	1.2	185	0.30	2.1	110	0.27	2.1	175	0.30	2.1	555	0.36	2.1	45	0.21	1.7	–	–	–
	T8430	1.2	200	0.30	2.1	110	0.27	2.1	165	0.30	2.1	555	0.36	2.1	40	0.21	1.7	–	–	–
	T9315	1.2	275	0.30	2.1	–	–	–	260	0.30	2.1	–	–	–	–	–	–	–	–	–
	T9325	1.2	245	0.30	2.1	145	0.27	2.1	230	0.30	2.1	–	–	–	55	0.21	1.7	–	–	–
																				
NM geometry with highly positive design for fine-finish, medium and rough machining, with continuous cuts.																				
CNMG 120404E-NM	**T7325**	0.4	195	0.20	2.1	150	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T7335	0.4	190	0.20	2.1	145	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T8315	0.4	180	0.20	2.1	105	0.18	2.1	–	–	–	540	0.24	2.1	45	0.16	1.7	–	–	–
	T8330	0.4	170	0.20	2.1	100	0.18	2.1	–	–	–	510	0.24	2.1	40	0.16	1.7	–	–	–
	T8430	0.4	195	0.20	2.1	105	0.18	2.1	–	–	–	540	0.24	2.1	40	0.16	1.7	–	–	–
	T9315	0.4	270	0.20	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	2.1	140	0.18	2.1	–	–	–	–	–	–	50	0.16	1.7	–	–	–
CNMG 120408E-NM	**T7325**	0.8	215	0.25	2.1	165	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T7335	0.8	210	0.25	2.1	160	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T8315	0.8	205	0.25	2.1	120	0.23	2.1	–	–	–	615	0.30	2.1	50	0.20	1.7	–	–	–
	T8330	0.8	195	0.25	2.1	115	0.23	2.1	–	–	–	585	0.30	2.1	45	0.20	1.7	–	–	–
	T8430	0.8	210	0.25	2.1	115	0.23	2.1	–	–	–	585	0.30	2.1	45	0.20	1.7	–	–	–
	T9315	0.8	290	0.25	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.25	2.1	155	0.23	2.1	–	–	–	–	–	–	55	0.20	1.7	–	–	–
CNMG 120412E-NM	**T7325**	1.2	215	0.30	2.1	165	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T7335	1.2	210	0.30	2.1	160	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T8315	1.2	205	0.30	2.1	120	0.27	2.1	–	–	–	615	0.36	2.1	50	0.24	1.7	–	–	–
	T8330	1.2	195	0.30	2.1	115	0.27	2.1	–	–	–	585	0.36	2.1	45	0.24	1.7	–	–	–
	T8430	1.2	210	0.30	2.1	115	0.27	2.1	–	–	–	585	0.36	2.1	45	0.24	1.7	–	–	–
	T9315	1.2	285	0.30	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	255	0.30	2.1	150	0.27	2.1	–	–	–	–	–	–	55	0.24	1.7	–	–	–
CNMG 160608E-NM	**T7325**	0.8	195	0.30	3.6	150	0.27	3.6	–	–	–	–	–	–	60	0.27	2.9	–	–	–
	T7335	0.8	190	0.30	3.6	145	0.27	3.6	–	–	–	–	–	–	60	0.27	2.9	–	–	–
	T8315	0.8	185	0.30	3.6	110	0.27	3.6	–	–	–	555	0.36	3.6	45	0.27	2.9	–	–	–
	T8330	0.8	170	0.30	3.6	100	0.27	3.6	–	–	–	510	0.36	3.6	40	0.27	2.9	–	–	–
	T8430	0.8	185	0.30	3.6	100	0.27	3.6	–	–	–	510	0.36	3.6	40	0.27	2.9	–	–	–
	T9325	0.8	225	0.30	3.6	135	0.27	3.6	–	–	–	–	–	–	50	0.27	2.9	–	–	–

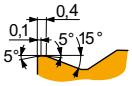
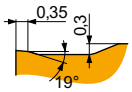
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			NM geometry with highly positive design for fine-finish, medium and rough machining, with continuous cuts.																	
CNMG 160612E-NM	**T7325**	1.2	205	0.30	3.6	155	0.27	3.6	–	–	–	–	–	–	65	0.27	2.9	–	–	–
	T7335	1.2	200	0.30	3.6	155	0.27	3.6	–	–	–	–	–	–	65	0.27	2.9	–	–	–
	T8315	1.2	195	0.30	3.6	115	0.27	3.6	–	–	–	585	0.36	3.6	45	0.27	2.9	–	–	–
	T9325	1.2	240	0.30	3.6	140	0.27	3.6	–	–	–	–	–	–	50	0.27	2.9	–	–	–
CNMG 190612E-NM	**T7325**	1.2	195	0.35	4.2	150	0.32	4.2	–	–	–	–	–	–	60	0.32	3.4	–	–	–
	T7335	1.2	180	0.35	4.2	140	0.32	4.2	–	–	–	–	–	–	55	0.32	3.4	–	–	–
	T8315	1.2	180	0.35	4.2	105	0.32	4.2	–	–	–	540	0.42	4.2	45	0.32	3.4	–	–	–
	T8330	1.2	170	0.35	4.2	100	0.32	4.2	–	–	–	510	0.42	4.2	40	0.32	3.4	–	–	–
	T8430	1.2	180	0.35	4.2	95	0.32	4.2	–	–	–	495	0.42	4.2	35	0.32	3.4	–	–	–
	T9325	1.2	220	0.35	4.2	130	0.32	4.2	–	–	–	–	–	–	45	0.32	3.4	–	–	–
																				
			NMR geometry with positive design for medium to rough machining, and continuous cuts.																	
CNMG 090308E-NMR	**T7325**	0.8	175	0.35	1.6	135	0.32	1.6	–	–	–	–	–	–	55	0.25	1.3	–	–	–
	T7335	0.8	170	0.35	1.6	130	0.32	1.6	–	–	–	–	–	–	55	0.25	1.3	–	–	–
	T9325	0.8	200	0.35	1.6	120	0.32	1.6	–	–	–	–	–	–	45	0.25	1.3	–	–	–
CNMG 120404E-NMR	**T6310**	0.4	140	0.25	2.7	100	0.23	2.7	–	–	–	–	–	–	40	0.20	2.2	–	–	–
	T7325	0.4	155	0.25	2.7	120	0.23	2.7	–	–	–	–	–	–	50	0.20	2.2	–	–	–
	T7335	0.4	155	0.25	2.0	120	0.23	2.0	–	–	–	–	–	–	50	0.20	1.6	–	–	–
	T8330	0.4	140	0.25	2.0	80	0.23	2.0	–	–	–	–	–	–	35	0.20	1.6	–	–	–
	T8430	0.4	150	0.25	2.7	80	0.23	2.7	–	–	–	–	–	–	30	0.20	2.2	–	–	–
	T9315	0.4	215	0.25	2.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.25	2.0	110	0.23	2.0	–	–	–	–	–	–	40	0.20	1.6	–	–	–
CNMG 120408E-NMR	**T6310**	0.8	150	0.35	2.7	105	0.32	2.7	–	–	–	–	–	–	45	0.25	2.2	–	–	–
	T7325	0.8	170	0.35	2.7	130	0.32	2.7	–	–	–	–	–	–	55	0.25	2.2	–	–	–
	T7335	0.8	160	0.35	2.7	120	0.32	2.7	–	–	–	–	–	–	50	0.25	2.2	–	–	–
	T8330	0.8	150	0.35	2.7	90	0.32	2.7	–	–	–	–	–	–	35	0.25	2.2	–	–	–
	T8430	0.8	155	0.35	2.7	85	0.32	2.7	–	–	–	–	–	–	30	0.25	2.2	–	–	–
	T9315	0.8	210	0.35	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.35	2.7	110	0.32	2.7	–	–	–	–	–	–	40	0.25	2.2	–	–	–
CNMG 120412E-NMR	**T6310**	1.2	150	0.40	2.7	105	0.36	2.7	–	–	–	–	–	–	45	0.28	2.2	–	–	–
	T7325	1.2	170	0.40	2.7	130	0.36	2.7	–	–	–	–	–	–	55	0.28	2.2	–	–	–
	T7335	1.2	160	0.40	2.7	120	0.36	2.7	–	–	–	–	–	–	50	0.28	2.2	–	–	–
	T8330	1.2	150	0.40	2.7	90	0.36	2.7	–	–	–	–	–	–	35	0.28	2.2	–	–	–
	T8430	1.2	155	0.40	2.7	85	0.36	2.7	–	–	–	–	–	–	30	0.28	2.2	–	–	–
	T9315	1.2	215	0.40	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	190	0.40	2.7	110	0.36	2.7	–	–	–	–	–	–	40	0.28	2.2	–	–	–
CNMG 120416E-NMR	**T7325**	1.6	170	0.45	2.7	130	0.41	2.7	–	–	–	–	–	–	55	0.32	2.2	–	–	–
	T7335	1.6	160	0.45	2.7	120	0.41	2.7	–	–	–	–	–	–	50	0.32	2.2	–	–	–
	T9325	1.6	190	0.45	2.7	110	0.41	2.7	–	–	–	–	–	–	40	0.32	2.2	–	–	–
CNMG 160608E-NMR	**T7325**	0.8	160	0.35	4.0	120	0.32	4.0	–	–	–	–	–	–	50	0.25	3.2	–	–	–
	T7335	0.8	150	0.35	4.0	115	0.32	4.0	–	–	–	–	–	–	45	0.25	3.2	–	–	–
	T9315	0.8	205	0.35	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.35	4.0	110	0.32	4.0	–	–	–	–	–	–	40	0.25	3.2	–	–	–
CNMG 160612E-NMR	**T7325**	1.2	165	0.40	4.0	125	0.36	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T7335	1.2	155	0.40	4.0	120	0.36	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T8330	1.2	145	0.40	4.0	85	0.36	4.0	–	–	–	–	–	–	35	0.28	3.2	–	–	–
	T8430	1.2	150	0.40	4.0	80	0.36	4.0	–	–	–	–	–	–	30	0.28	3.2	–	–	–
	T9315	1.2	205	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.40	4.0	110	0.36	4.0	–	–	–	–	–	–	40	0.28	3.2	–	–	–

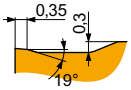
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NMR geometry with positive design for medium to rough machining, and continuous cuts.																				
CNMG 160616E-NMR	**T7325**	1.6	165	0.45	4.0	125	0.41	4.0	–	–	–	–	–	–	50	0.32	3.2	–	–	–
	T7335	1.6	155	0.45	4.0	120	0.41	4.0	–	–	–	–	–	–	50	0.32	3.2	–	–	–
	T8330	1.6	145	0.45	4.0	85	0.41	4.0	–	–	–	–	–	–	35	0.32	3.2	–	–	–
	T8430	1.6	150	0.45	4.0	80	0.41	4.0	–	–	–	–	–	–	30	0.32	3.2	–	–	–
	T9315	1.6	200	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.6	180	0.45	4.0	105	0.41	4.0	–	–	–	–	–	–	40	0.32	3.2	–	–	–
CNMG 190608E-NMR	**T6310**	0.8	140	0.35	5.2	100	0.32	5.2	–	–	–	–	–	–	40	0.25	4.2	–	–	–
	T7325	0.8	155	0.35	5.2	120	0.32	5.2	–	–	–	–	–	–	50	0.25	4.2	–	–	–
	T7335	0.8	150	0.35	5.2	115	0.32	5.2	–	–	–	–	–	–	45	0.25	4.2	–	–	–
	T9315	0.8	195	0.35	5.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	180	0.35	5.2	105	0.32	5.2	–	–	–	–	–	–	40	0.25	4.2	–	–	–
CNMG 190612E-NMR	**T6310**	1.2	140	0.40	5.2	100	0.36	5.2	–	–	–	–	–	–	40	0.28	4.2	–	–	–
	T7325	1.2	160	0.40	5.2	120	0.36	5.2	–	–	–	–	–	–	50	0.28	4.2	–	–	–
	T7335	1.2	150	0.40	5.2	115	0.36	5.2	–	–	–	–	–	–	45	0.28	4.2	–	–	–
	T8330	1.2	140	0.40	5.2	80	0.36	5.2	–	–	–	–	–	–	35	0.28	4.2	–	–	–
	T8430	1.2	145	0.40	5.2	80	0.36	5.2	–	–	–	–	–	–	30	0.28	4.2	–	–	–
	T9315	1.2	200	0.40	5.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	180	0.40	5.2	105	0.36	5.2	–	–	–	–	–	–	40	0.28	4.2	–	–	–
CNMG 190616E-NMR	**T7325**	1.6	160	0.45	5.2	120	0.41	5.2	–	–	–	–	–	–	50	0.32	4.2	–	–	–
	T7335	1.6	150	0.45	5.2	115	0.41	5.2	–	–	–	–	–	–	45	0.32	4.2	–	–	–
	T9315	1.6	195	0.45	5.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.6	175	0.45	5.2	105	0.41	5.2	–	–	–	–	–	–	35	0.32	4.2	–	–	–
																				
NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																				
CNMG 120408-NRM	**T7325**	0.8	160	0.35	4.0	120	0.32	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T7335	0.8	150	0.35	4.0	115	0.32	4.0	–	–	–	–	–	–	45	0.28	3.2	–	–	–
	T9315	0.8	205	0.35	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120412-NRM	**T7325**	1.2	165	0.40	4.0	125	0.36	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T7335	1.2	155	0.40	4.0	120	0.36	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T9315	1.2	205	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120416-NRM	**T7325**	1.6	165	0.45	4.0	125	0.41	4.0	–	–	–	–	–	–	50	0.36	3.2	–	–	–
	T7335	1.6	155	0.45	4.0	120	0.41	4.0	–	–	–	–	–	–	50	0.36	3.2	–	–	–
	T9315	1.6	200	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160608-NRM	**T7325**	0.8	155	0.35	6.0	120	0.32	6.0	–	–	–	–	–	–	50	0.28	4.8	–	–	–
	T7335	0.8	145	0.35	6.0	110	0.32	6.0	–	–	–	–	–	–	45	0.28	4.8	–	–	–
	T9315	0.8	195	0.35	6.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160612-NRM	**T7325**	1.2	155	0.40	6.0	120	0.36	6.0	–	–	–	–	–	–	50	0.32	4.8	–	–	–
	T7335	1.2	150	0.40	6.0	115	0.36	6.0	–	–	–	–	–	–	45	0.32	4.8	–	–	–
	T9315	1.2	200	0.40	6.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160616-NRM	**T7325**	1.6	155	0.45	6.0	120	0.41	6.0	–	–	–	–	–	–	50	0.36	4.8	–	–	–
	T7335	1.6	150	0.45	6.0	115	0.41	6.0	–	–	–	–	–	–	45	0.36	4.8	–	–	–
	T9315	1.6	195	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190608-NRM	**T7325**	0.8	150	0.35	8.0	115	0.32	8.0	–	–	–	–	–	–	45	0.28	6.4	–	–	–
	T7335	0.8	140	0.35	8.0	105	0.32	8.0	–	–	–	–	–	–	45	0.28	6.4	–	–	–
	T9315	0.8	190	0.35	8.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190612-NRM	**T7325**	1.2	155	0.40	8.0	120	0.36	8.0	–	–	–	–	–	–	50	0.32	6.4	–	–	–
	T7335	1.2	145	0.40	8.0	110	0.36	8.0	–	–	–	–	–	–	45	0.32	6.4	–	–	–
	T9315	1.2	190	0.40	8.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190616-NRM	**T7325**	1.6	150	0.45	8.0	115	0.41	8.0	–	–	–	–	–	–	45	0.36	6.4	–	–	–
	T7335	1.6	145	0.45	8.0	110	0.41	8.0	–	–	–	–	–	–	45	0.36	6.4	–	–	–
	T9315	1.6	190	0.45	8.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 250924-NRM	**T7325**	2.4	95	0.70	10.0	70	0.63	10.0	–	–	–	–	–	–	30	0.49	8.0	–	–	–
	T7335	2.4	90	0.70	10.0	70	0.63	10.0	–	–	–	–	–	–	25	0.49	8.0	–	–	–
	T9315	2.4	115	0.70	10.0	–	–	–	105	0.70	10.0	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

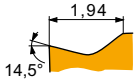
Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
R geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CNMG 120408E-R	**6640**	0.8	140	0.40	4.0	–	–	–	130	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5305	0.8	240	0.40	4.0	–	–	–	225	0.40	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	215	0.40	4.0	–	–	–	200	0.40	4.0	–	–	–	–	–	–	40	0.15	1.0
	T9310	0.8	205	0.40	4.0	–	–	–	190	0.40	4.0	–	–	–	–	–	–	40	0.15	1.0
	T9315	0.8	190	0.40	4.0	–	–	–	180	0.40	4.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	175	0.40	4.0	–	–	–	165	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	150	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120412E-R	**T5305**	1.2	245	0.45	4.0	–	–	–	230	0.45	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	1.2	220	0.45	4.0	–	–	–	205	0.45	4.0	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	195	0.45	4.0	–	–	–	185	0.45	4.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	175	0.45	4.0	–	–	–	165	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	155	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120416E-R	**T5315**	1.6	225	0.50	4.0	–	–	–	210	0.50	4.0	–	–	–	–	–	–	45	0.15	1.0
	T9335	1.6	150	0.50	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160608E-R	**T5315**	0.8	210	0.40	5.5	–	–	–	195	0.40	5.5	–	–	–	–	–	–	40	0.15	1.0
CNMG 160612E-R	**T5305**	1.2	235	0.45	5.5	–	–	–	220	0.45	5.5	–	–	–	–	–	–	45	0.15	1.0
	T5315	1.2	215	0.45	5.5	–	–	–	200	0.45	5.5	–	–	–	–	–	–	40	0.15	1.0
	T7335	1.2	145	0.45	5.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.2	205	0.45	5.5	–	–	–	190	0.45	5.5	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	190	0.45	5.5	–	–	–	180	0.45	5.5	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	170	0.45	5.5	–	–	–	160	0.45	5.5	–	–	–	–	–	–	–	–	–
CNMG 160616E-R	**T5305**	1.6	240	0.50	5.5	–	–	–	225	0.50	5.5	–	–	–	–	–	–	45	0.15	1.0
CNMG 190608E-R	**T5315**	0.8	205	0.40	7.0	–	–	–	190	0.40	7.0	–	–	–	–	–	–	40	0.15	1.0
CNMG 190612E-R	**6640**	1.2	135	0.45	7.0	–	–	–	125	0.45	7.0	–	–	–	–	–	–	–	–	–
	T5305	1.2	230	0.45	7.0	–	–	–	215	0.45	7.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	1.2	210	0.45	7.0	–	–	–	195	0.45	7.0	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	185	0.45	7.0	–	–	–	175	0.45	7.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	165	0.45	7.0	–	–	–	155	0.45	7.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	145	0.45	7.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190616E-R	**6640**	1.6	130	0.50	7.0	–	–	–	120	0.50	7.0	–	–	–	–	–	–	–	–	–
	T5305	1.6	235	0.50	7.0	–	–	–	220	0.50	7.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	1.6	210	0.50	7.0	–	–	–	195	0.50	7.0	–	–	–	–	–	–	40	0.15	1.0
	T9310	1.6	195	0.50	7.0	–	–	–	185	0.50	7.0	–	–	–	–	–	–	35	0.15	1.0
	T9315	1.6	180	0.50	7.0	–	–	–	170	0.50	7.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.6	165	0.50	7.0	–	–	–	155	0.50	7.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	145	0.50	7.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CNMG 120408E-RM	**T5305**	0.8	275	0.40	4.0	–	–	–	260	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	250	0.40	4.0	–	–	–	235	0.40	4.0	–	–	–	–	–	–	–	–	–
	T6310	0.8	155	0.40	4.0	110	0.36	4.0	125	0.40	4.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	180	0.40	4.0	140	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	165	0.40	4.0	125	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	165	0.40	4.0	95	0.36	4.0	155	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8330	0.8	155	0.40	4.0	90	0.36	4.0	145	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	165	0.40	4.0	90	0.36	4.0	135	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9310	0.8	240	0.40	4.0	–	–	–	225	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	220	0.40	4.0	–	–	–	205	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	200	0.40	4.0	120	0.36	4.0	190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	170	0.40	4.0	100	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMG 120412E-RM	**T5305**	1.2	280	0.45	4.0	–	–	–	265	0.45	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	250	0.45	4.0	–	–	–	235	0.45	4.0	–	–	–	–	–	–	–	–	–
	T6310	1.2	160	0.45	4.0	115	0.41	4.0	125	0.45	4.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	180	0.45	4.0	140	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	170	0.45	4.0	130	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	1.2	170	0.45	4.0	100	0.41	4.0	160	0.45	4.0	–	–	–	–	–	–	–	–	–
	T8330	1.2	160	0.45	4.0	95	0.41	4.0	150	0.45	4.0	–	–	–	–	–	–	–	–	–
	T8430	1.2	170	0.45	4.0	90	0.41	4.0	135	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9310	1.2	240	0.45	4.0	–	–	–	225	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	220	0.45	4.0	–	–	–	205	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	200	0.45	4.0	120	0.41	4.0	190	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	175	0.45	4.0	105	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 120416E-RM	**T5305**	1.6	280	0.50	4.0	–	–	–	265	0.50	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.6	255	0.50	4.0	–	–	–	240	0.50	4.0	–	–	–	–	–	–	–	–	–
	T7325	1.6	185	0.50	4.0	140	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.6	175	0.50	4.0	135	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.6	160	0.50	4.0	95	0.45	4.0	150	0.50	4.0	–	–	–	–	–	–	–	–	–
	T8430	1.6	170	0.50	4.0	90	0.45	4.0	135	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9310	1.6	240	0.50	4.0	–	–	–	225	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	220	0.50	4.0	–	–	–	205	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	205	0.50	4.0	120	0.45	4.0	190	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	175	0.50	4.0	105	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160608E-RM	**T5305**	0.8	265	0.40	6.0	–	–	–	250	0.40	6.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	240	0.40	6.0	–	–	–	225	0.40	6.0	–	–	–	–	–	–	–	–	–
	T8330	0.8	150	0.40	6.0	90	0.36	6.0	140	0.40	6.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	155	0.40	6.0	85	0.36	6.0	130	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	215	0.40	6.0	–	–	–	200	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.40	6.0	110	0.36	6.0	180	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	165	0.40	6.0	95	0.36	6.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160612E-RM	**T5305**	1.2	270	0.45	6.0	–	–	–	255	0.45	6.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	245	0.45	6.0	–	–	–	230	0.45	6.0	–	–	–	–	–	–	–	–	–
	T6310	1.2	155	0.45	6.0	110	0.41	6.0	125	0.45	6.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	170	0.45	6.0	130	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	165	0.45	6.0	125	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	155	0.45	6.0	90	0.41	6.0	145	0.45	6.0	–	–	–	–	–	–	–	–	–
	T8430	1.2	155	0.45	6.0	85	0.41	6.0	130	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9310	1.2	230	0.45	6.0	–	–	–	215	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	215	0.45	6.0	–	–	–	200	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.45	6.0	115	0.41	6.0	185	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	165	0.45	6.0	95	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 160616E-RM	**T5305**	1.6	270	0.50	6.0	–	–	–	255	0.50	6.0	–	–	–	–	–	–	–	–	–
	T5315	1.6	245	0.50	6.0	–	–	–	230	0.50	6.0	–	–	–	–	–	–	–	–	–
	T7325	1.6	175	0.50	6.0	135	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.6	165	0.50	6.0	125	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.6	225	0.50	6.0	–	–	–	210	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	215	0.50	6.0	–	–	–	200	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	190	0.50	6.0	110	0.45	6.0	180	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	165	0.50	6.0	95	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190608E-RM	**T5305**	0.8	260	0.40	7.5	–	–	–	245	0.40	7.5	–	–	–	–	–	–	–	–	–
	T5315	0.8	230	0.40	7.5	–	–	–	215	0.40	7.5	–	–	–	–	–	–	–	–	–
	T7335	0.8	155	0.40	7.5	120	0.36	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	0.8	210	0.40	7.5	–	–	–	195	0.40	7.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.40	7.5	110	0.36	7.5	180	0.40	7.5	–	–	–	–	–	–	–	–	–
	T9335	0.8	160	0.40	7.5	95	0.36	7.5	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

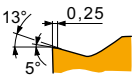
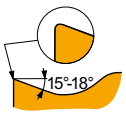
Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
CNMG 190612E-RM	**T5305**	1.2	260	0.45	7.5	–	–	–	245	0.45	7.5	–	–	–	–	–	–	–	–	–
	T5315	1.2	240	0.45	7.5	–	–	–	225	0.45	7.5	–	–	–	–	–	–	–	–	–
	T6310	1.2	155	0.45	7.5	110	0.41	7.5	125	0.45	7.5	–	–	–	–	–	–	–	–	–
	T7325	1.2	170	0.45	7.5	130	0.41	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	160	0.45	7.5	120	0.41	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	155	0.45	7.5	90	0.41	7.5	145	0.45	7.5	–	–	–	–	–	–	–	–	–
	T8430	1.2	150	0.45	7.5	80	0.41	7.5	125	0.45	7.5	–	–	–	–	–	–	–	–	–
	T9310	1.2	220	0.45	7.5	–	–	–	205	0.45	7.5	–	–	–	–	–	–	–	–	–
	T9315	1.2	210	0.45	7.5	–	–	–	195	0.45	7.5	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.45	7.5	110	0.41	7.5	175	0.45	7.5	–	–	–	–	–	–	–	–	–
	T9335	1.2	165	0.45	7.5	95	0.41	7.5	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 190616E-RM	**T5305**	1.6	265	0.50	7.5	–	–	–	250	0.50	7.5	–	–	–	–	–	–	–	–	–
	T5315	1.6	240	0.50	7.5	–	–	–	225	0.50	7.5	–	–	–	–	–	–	–	–	–
	T6310	1.6	155	0.50	7.5	110	0.45	7.5	125	0.50	7.5	–	–	–	–	–	–	–	–	–
	T7325	1.6	175	0.50	7.5	135	0.45	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.6	160	0.50	7.5	120	0.45	7.5	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.6	225	0.50	7.5	–	–	–	210	0.50	7.5	–	–	–	–	–	–	–	–	–
	T9315	1.6	210	0.50	7.5	–	–	–	195	0.50	7.5	–	–	–	–	–	–	–	–	–
	T9325	1.6	190	0.50	7.5	110	0.45	7.5	180	0.50	7.5	–	–	–	–	–	–	–	–	–
	T9335	1.6	160	0.50	7.5	95	0.45	7.5	–	–	–	–	–	–	–	–	–	–	–	–
CNMG 250924E-RM	**T7325**	2.4	105	0.80	12.0	80	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	2.4	100	0.80	12.0	75	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9226	2.4	90	0.80	12.0	50	0.72	12.0	85	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	120	0.80	12.0	–	–	–	110	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	105	0.80	12.0	60	0.72	12.0	95	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	85	0.80	12.0	50	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–



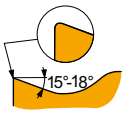
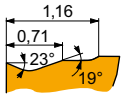
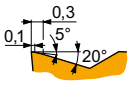
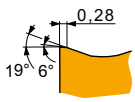
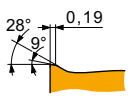
SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.

CNMG 120404E-SF	**H07**	0.4	–	–	–	90	0.14	1.0	145	0.15	1.0	470	0.18	1.0	45	0.12	0.8	–	–	–
	T6310	0.4	180	0.15	1.0	125	0.14	1.0	145	0.15	1.0	540	0.18	1.0	50	0.12	0.8	35	0.15	1.0
	T7325	0.4	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T7335	0.4	200	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T8315	0.4	195	0.15	1.0	115	0.14	1.0	185	0.15	1.0	585	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8330	0.4	180	0.15	1.0	105	0.14	1.0	170	0.15	1.0	540	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8430	0.4	220	0.15	1.0	120	0.14	1.0	180	0.15	1.0	600	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T9315	0.4	300	0.15	1.0	–	–	–	285	0.15	1.0	–	–	–	–	–	–	60	0.15	1.0
	T9325	0.4	255	0.17	1.0	150	0.15	1.0	240	0.17	1.0	–	–	–	55	0.15	0.8	–	–	–
CNMG 120408E-SF	**H07**	0.8	–	–	–	95	0.18	1.0	155	0.20	1.0	495	0.24	1.0	50	0.14	0.8	–	–	–
	T6310	0.8	200	0.20	1.0	140	0.18	1.0	160	0.20	1.0	600	0.24	1.0	60	0.14	0.8	40	0.15	1.0
	T7325	0.8	230	0.20	1.0	175	0.18	1.0	–	–	–	–	–	–	70	0.16	0.8	–	–	–
	T7335	0.8	220	0.20	1.0	170	0.18	1.0	–	–	–	–	–	–	70	0.16	0.8	–	–	–
	T8315	0.8	210	0.20	1.0	125	0.18	1.0	195	0.20	1.0	630	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8330	0.8	200	0.20	1.0	120	0.18	1.0	190	0.20	1.0	600	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8430	0.8	230	0.20	1.0	125	0.18	1.0	185	0.20	1.0	630	0.24	1.0	45	0.14	0.8	35	0.15	1.0
	T9315	0.8	315	0.20	1.0	–	–	–	295	0.20	1.0	–	–	–	–	–	–	60	0.15	1.0
	T9325	0.8	280	0.20	1.0	165	0.18	1.0	265	0.20	1.0	–	–	–	60	0.16	0.8	–	–	–
CNMG 120412E-SF	**T6310**	1.2	190	0.25	1.5	135	0.23	1.5	150	0.25	1.5	570	0.30	1.5	55	0.18	1.2	35	0.15	1.0
	T7325	1.2	220	0.25	1.5	170	0.23	1.5	–	–	–	–	–	–	70	0.18	1.2	–	–	–
	T8315	1.2	200	0.25	1.5	120	0.23	1.5	190	0.25	1.5	600	0.30	1.5	50	0.18	1.2	40	0.15	1.0
	T8430	1.2	210	0.25	1.5	115	0.23	1.5	175	0.25	1.5	585	0.30	1.5	45	0.18	1.2	35	0.15	1.0

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

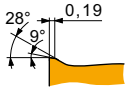
Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
SM geometry with positive design for medium machining, and continuous to interrupted cuts.																				
CNMG 120404E-SM	**T6310**	0.4	■ 155	0.22	2.0	■ 110	0.20	2.0	■ 125	0.22	2.0	◪ 465	0.26	2.0	■ 45	0.20	1.6	◪ 30	0.15	1.0
	T7325	0.4	◪ 175	0.22	2.0	■ 135	0.20	2.0	–	–	–	–	–	–	■ 55	0.20	1.6	–	–	–
	T7335	0.4	◪ 170	0.22	2.0	■ 130	0.20	2.0	–	–	–	–	–	–	■ 55	0.20	1.6	–	–	–
	T8330	0.4	■ 155	0.22	2.0	■ 90	0.20	2.0	■ 145	0.22	2.0	◪ 465	0.26	2.0	◪ 35	0.20	1.6	◪ 30	0.15	1.0
	T8430	0.4	■ 170	0.22	2.0	■ 90	0.20	2.0	◪ 135	0.22	2.0	◪ 465	0.26	2.0	◪ 35	0.20	1.6	◪ 25	0.15	1.0
	T9315	0.4	■ 245	0.20	2.0	–	–	–	◪ 230	0.20	2.0	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	0.4	■ 210	0.22	2.0	■ 125	0.20	2.0	◪ 195	0.22	2.0	–	–	–	◪ 45	0.20	1.6	–	–	–
CNMG 120408E-SM	**T6310**	0.8	■ 175	0.25	2.0	■ 125	0.23	2.0	■ 140	0.25	2.0	◪ 525	0.30	2.0	■ 50	0.20	1.6	◪ 35	0.15	1.0
	T7325	0.8	◪ 200	0.25	2.0	■ 155	0.23	2.0	–	–	–	–	–	–	■ 65	0.20	1.6	–	–	–
	T7335	0.8	◪ 190	0.25	2.0	■ 145	0.23	2.0	–	–	–	–	–	–	■ 60	0.20	1.6	–	–	–
	T8330	0.8	■ 175	0.25	2.0	■ 105	0.23	2.0	■ 165	0.25	2.0	◪ 525	0.30	2.0	◪ 40	0.20	1.6	◪ 35	0.15	1.0
	T8430	0.8	■ 195	0.25	2.0	■ 105	0.23	2.0	◪ 160	0.25	2.0	◪ 540	0.30	2.0	◪ 40	0.20	1.6	◪ 30	0.15	1.0
	T9315	0.8	■ 265	0.25	2.0	–	–	–	◪ 250	0.25	2.0	–	–	–	–	–	–	◪ 50	0.15	1.0
	T9325	0.8	■ 235	0.25	2.0	■ 140	0.23	2.0	◪ 220	0.25	2.0	–	–	–	◪ 50	0.20	1.6	–	–	–
CNMG 120412E-SM	**T6310**	1.2	■ 175	0.30	2.0	■ 125	0.27	2.0	■ 140	0.30	2.0	◪ 525	0.36	2.0	■ 50	0.24	1.6	◪ 35	0.15	1.0
	T7325	1.2	◪ 195	0.30	2.0	■ 150	0.27	2.0	–	–	–	–	–	–	■ 60	0.24	1.6	–	–	–
	T7335	1.2	◪ 190	0.30	2.0	■ 145	0.27	2.0	–	–	–	–	–	–	■ 60	0.24	1.6	–	–	–
	T8330	1.2	■ 175	0.30	2.0	■ 105	0.27	2.0	■ 165	0.30	2.0	◪ 525	0.36	2.0	◪ 40	0.24	1.6	◪ 35	0.15	1.0
	T8430	1.2	■ 190	0.30	2.0	■ 105	0.27	2.0	◪ 155	0.30	2.0	◪ 525	0.36	2.0	◪ 40	0.24	1.6	◪ 30	0.15	1.0
	T9315	1.2	■ 260	0.30	2.0	–	–	–	◪ 245	0.30	2.0	–	–	–	–	–	–	◪ 50	0.15	1.0
	T9325	1.2	■ 235	0.30	2.0	■ 140	0.27	2.0	◪ 220	0.30	2.0	–	–	–	◪ 50	0.24	1.6	–	–	–
CNMG 160608E-SM	**T7325**	0.8	◪ 185	0.26	3.0	■ 140	0.23	3.0	–	–	–	–	–	–	■ 60	0.23	2.4	–	–	–
	T7335	0.8	◪ 180	0.26	3.0	■ 140	0.23	3.0	–	–	–	–	–	–	■ 55	0.23	2.4	–	–	–
	T8330	0.8	■ 165	0.26	3.0	■ 95	0.23	3.0	■ 155	0.26	3.0	◪ 495	0.31	3.0	◪ 40	0.23	2.4	◪ 30	0.15	1.0
	T8430	0.8	■ 180	0.26	3.0	■ 95	0.23	3.0	◪ 145	0.26	3.0	◪ 495	0.31	3.0	◪ 35	0.23	2.4	◪ 30	0.15	1.0
	T9325	0.8	■ 225	0.26	3.0	■ 135	0.23	3.0	◪ 210	0.26	3.0	–	–	–	◪ 50	0.23	2.4	–	–	–
CNMG 160612E-SM	**T6310**	1.2	■ 170	0.30	3.0	■ 120	0.27	3.0	■ 135	0.30	3.0	◪ 510	0.36	3.0	■ 50	0.27	2.4	◪ 30	0.15	1.0
	T7325	1.2	◪ 190	0.30	3.0	■ 145	0.27	3.0	–	–	–	–	–	–	■ 60	0.27	2.4	–	–	–
	T7335	1.2	◪ 180	0.30	3.0	■ 140	0.27	3.0	–	–	–	–	–	–	■ 55	0.27	2.4	–	–	–
	T9315	1.2	■ 250	0.30	3.0	–	–	–	◪ 235	0.30	3.0	–	–	–	–	–	–	◪ 50	0.15	1.0
	T9325	1.2	■ 225	0.30	3.0	■ 135	0.27	3.0	◪ 210	0.30	3.0	–	–	–	◪ 50	0.27	2.4	–	–	–
CNMG 190612E-SM	**T6310**	1.2	■ 165	0.30	4.0	■ 115	0.27	4.0	■ 130	0.30	4.0	◪ 495	0.36	4.0	■ 45	0.27	3.2	◪ 30	0.15	1.0
	T7325	1.2	◪ 185	0.30	4.0	■ 140	0.27	4.0	–	–	–	–	–	–	■ 60	0.27	3.2	–	–	–
	T7335	1.2	◪ 175	0.30	4.0	■ 135	0.27	4.0	–	–	–	–	–	–	■ 55	0.27	3.2	–	–	–
	T9315	1.2	■ 245	0.30	4.0	–	–	–	◪ 230	0.30	4.0	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	1.2	■ 220	0.30	4.0	■ 130	0.27	4.0	◪ 205	0.30	4.0	–	–	–	◪ 45	0.27	3.2	–	–	–
																				
ER-SI geometry with positive right-handed design for fine-finish to semi-rough machining, and continuous cuts.																				
CNMG 120404ER-SI	**T7325**	0.4	◪ 220	0.20	1.7	■ 170	0.18	1.7	–	–	–	–	–	–	◪ 70	0.18	1.4	–	–	–
	T7335	0.4	◪ 215	0.20	1.7	■ 165	0.18	1.7	–	–	–	–	–	–	◪ 65	0.18	1.4	–	–	–
	T8330	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–
CNMG 120408ER-SI	**T7325**	0.8	◪ 215	0.35	1.7	■ 165	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T7335	0.8	◪ 205	0.35	1.7	■ 155	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T8315	0.8	◪ 205	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 50	0.25	1.4	–	–	–
	T8330	0.8	■ 195	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T8430	0.8	■ 210	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T9325	0.8	■ 255	0.35	1.7	■ 150	0.32	1.7	–	–	–	–	–	–	◪ 55	0.25	1.4	–	–	–
CNMG 120412ER-SI	**T8430**	1.2	■ 225	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 45	0.25	1.4	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			E																	
			EL-SI geometry with positive left-handed design for fine-finish to semi-rough machining, and continuous cuts.																	
CNMG 120404EL-SI	**T7325**	0.4	◪ 220	0.20	1.7	■ 170	0.18	1.7	–	–	–	–	–	–	◪ 70	0.18	1.4	–	–	–
	T7335	0.4	◪ 215	0.20	1.7	■ 165	0.18	1.7	–	–	–	–	–	–	◪ 65	0.18	1.4	–	–	–
	T8330	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–
CNMG 120408EL-SI	**T7325**	0.8	◪ 215	0.35	1.7	■ 165	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T7335	0.8	◪ 205	0.35	1.7	■ 155	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T8315	0.8	◪ 205	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 50	0.25	1.4	–	–	–
	T8330	0.8	■ 195	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T8430	0.8	■ 210	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T9325	0.8	■ 255	0.35	1.7	■ 150	0.32	1.7	–	–	–	–	–	–	◪ 55	0.25	1.4	–	–	–
CNMG 120412EL-SI	**T8430**	1.2	■ 225	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 45	0.25	1.4	–	–	–
																				
			W E																	
			W-F wiper geometry for fine to finish machining with increased feed rates and improved surface finish.																	
CNMG 120408W-F	**T9315**	0.8	■ 215	0.45	0.8	–	–	–	◪ 200	0.45	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 190	0.45	0.8	–	–	–	◪ 180	0.45	0.8	–	–	–	–	–	–	–	–	–
																				
			W S																	
			W-M wiper geometry for semi-rough to rough machining with increased feed rates and improved surface finish.																	
CNMG 120408W-M	**T5315**	0.8	◪ 230	0.45	1.5	–	–	–	◪ 215	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 200	0.45	1.5	–	–	–	◪ 190	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 185	0.45	1.5	–	–	–	◪ 175	0.45	1.5	–	–	–	–	–	–	–	–	–
CNMG 120412W-M	**T5315**	1.2	◪ 230	0.55	1.5	–	–	–	◪ 215	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9315	1.2	■ 200	0.55	1.5	–	–	–	◪ 190	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 180	0.55	1.5	–	–	–	◪ 170	0.55	1.5	–	–	–	–	–	–	–	–	–
																				
			W S																	
			W-MR wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																	
CNMG 120404W-MR	**T9315**	0.4	■ 200	0.30	1.5	–	–	–	◪ 190	0.30	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 180	0.30	1.5	◪ 105	0.27	1.5	◪ 170	0.30	1.5	–	–	–	–	–	–	–	–	–
CNMG 120408W-MR	**T5315**	0.8	◪ 230	0.45	1.5	–	–	–	◪ 215	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9310	0.8	■ 215	0.45	1.5	–	–	–	◪ 200	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 200	0.45	1.5	–	–	–	◪ 190	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 185	0.45	1.5	◪ 110	0.41	1.5	◪ 175	0.45	1.5	–	–	–	–	–	–	–	–	–
CNMG 120412W-MR	**T5315**	1.2	◪ 230	0.55	1.5	–	–	–	◪ 215	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9310	1.2	■ 210	0.55	1.5	–	–	–	◪ 195	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9315	1.2	■ 200	0.55	1.5	–	–	–	◪ 190	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 180	0.55	1.5	◪ 105	0.50	1.5	◪ 170	0.55	1.5	–	–	–	–	–	–	–	–	–
																				
			W 1 U S																	
			W-NM wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																	
CNMG 120404W-NM	**T7325**	0.4	◪ 195	0.20	2.1	◪ 150	0.18	2.1	–	–	–	–	–	–	◪ 60	0.16	1.7	–	–	–
	T7335	0.4	◪ 190	0.20	2.1	◪ 145	0.18	2.1	–	–	–	–	–	–	◪ 60	0.16	1.7	–	–	–
	T9315	0.4	■ 270	0.20	2.1	–	–	–	◪ 255	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 240	0.20	2.1	◪ 140	0.18	2.1	◪ 225	0.20	2.1	–	–	–	◪ 50	0.16	1.7	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
CNMG 120408W-NM	**T7325**	0.8	215	0.25	2.1	165	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T7335	0.8	210	0.25	2.1	160	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T9315	0.8	290	0.25	2.1	–	–	–	275	0.25	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.25	2.1	155	0.23	2.1	245	0.25	2.1	–	–	–	55	0.20	1.7	–	–	–
CNMG 120412W-NM	**T7325**	1.2	215	0.30	2.1	165	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T7335	1.2	210	0.30	2.1	160	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T9315	1.2	285	0.30	2.1	–	–	–	270	0.30	2.1	–	–	–	–	–	–	–	–	–
	T9325	1.2	255	0.30	2.1	150	0.27	2.1	240	0.30	2.1	–	–	–	55	0.24	1.7	–	–	–

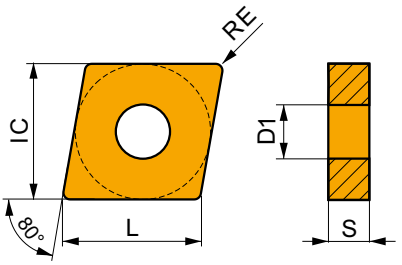


W-NM wiper geometry for finish to rough machining with increased feed rates and improved surface finish.

CNMM

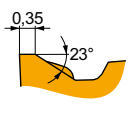
PRAMET

	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
1204	12.700	5.16	12.90	4.76
1606	15.875	6.35	16.10	6.35
1906	19.050	7.94	19.30	6.35
2509	25.400	9.12	25.80	9.53

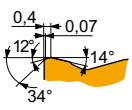


Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
CNMM 160612E-DR	**T9315**	1.2	225	0.45	6.0	–	–	–	210	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	200	0.45	6.0	120	0.41	6.0	190	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.45	6.0	100	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190608E-DR	**T9315**	0.8	215	0.40	8.0	–	–	–	200	0.40	8.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.40	8.0	110	0.36	8.0	180	0.40	8.0	–	–	–	–	–	–	–	–	–
CNMM 190612E-DR	**T9315**	1.2	220	0.45	8.0	–	–	–	205	0.45	8.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.45	8.0	115	0.41	8.0	185	0.45	8.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.45	8.0	100	0.41	8.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190616E-DR	**T9325**	1.6	195	0.50	9.0	115	0.45	9.0	185	0.50	9.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	170	0.50	9.0	100	0.45	9.0	–	–	–	–	–	–	–	–	–	–	–	–



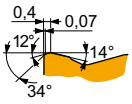
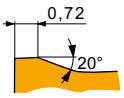
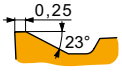
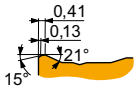
DR geometry for semi-rough to rough machining, and continuous to interrupted cuts.



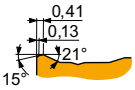
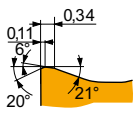
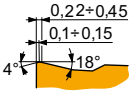
HR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.

CNMM 190616E-HR	**6640**	1.6	75	0.60	10.0	45	0.54	10.0	70	0.60	10.0	–	–	–	–	–	–	–	–	–
	T8345	1.6	55	0.60	10.0	30	0.54	10.0	50	0.60	10.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	105	0.60	10.0	60	0.54	10.0	95	0.60	10.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	80	0.60	10.0	45	0.54	10.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190624E-HR	**T8345**	2.4	60	0.65	10.0	35	0.59	10.0	55	0.65	10.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	115	0.65	10.0	–	–	–	105	0.65	10.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	100	0.65	10.0	60	0.59	10.0	95	0.65	10.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	85	0.65	10.0	50	0.59	10.0	–	–	–	–	–	–	–	–	–	–	–	–

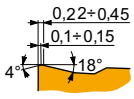
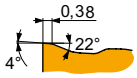
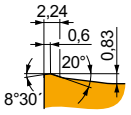
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			HR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																	
CNMM 250924E-HR	**6640**	2.4	■ 75	0.65	14.0	◪ 45	0.59	14.0	■ 70	0.65	14.0	–	–	–	–	–	–	–	–	–
	T8345	2.4	■ 55	0.65	14.0	◪ 30	0.59	14.0	◪ 50	0.65	14.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	■ 110	0.65	14.0	–	–	–	◪ 100	0.65	14.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	■ 100	0.65	14.0	◪ 60	0.59	14.0	◪ 95	0.65	14.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	■ 80	0.65	14.0	◪ 45	0.59	14.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			HR2 geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																	
CNMM 190616-HR2	**T9226**	1.6	■ 85	0.65	10.0	◪ 50	0.59	10.0	◪ 80	0.65	10.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	■ 110	0.65	10.0	–	–	–	◪ 100	0.65	10.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	■ 80	0.65	10.0	◪ 45	0.59	10.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 190624-HR2	**T9226**	2.4	■ 80	0.85	10.0	◪ 45	0.77	10.0	◪ 75	0.85	10.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	■ 100	0.85	10.0	–	–	–	◪ 95	0.85	10.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	■ 75	0.85	10.0	◪ 45	0.77	10.0	–	–	–	–	–	–	–	–	–	–	–	–
CNMM 250924-HR2	**T9315**	2.4	■ 100	0.85	12.0	–	–	–	◪ 95	0.85	12.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	■ 75	0.85	12.0	◪ 45	0.77	12.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			NR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMM 120408E-NR	**6640**	0.8	■ 155	0.40	3.0	■ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	◪ 175	0.40	3.0	■ 135	0.36	3.0	–	–	–	–	–	–	◪ 55	0.28	2.4	–	–	–
	T7335	0.8	◪ 165	0.40	3.0	■ 125	0.36	3.0	–	–	–	–	–	–	◪ 50	0.28	2.4	–	–	–
	T8330	0.8	■ 155	0.40	3.0	■ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	◪ 35	0.28	2.4	–	–	–
	T8430	0.8	■ 165	0.40	3.0	■ 90	0.36	3.0	◪ 135	0.40	3.0	–	–	–	◪ 35	0.28	2.4	–	–	–
	T9315	0.8	■ 215	0.40	3.0	–	–	–	◪ 200	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 195	0.40	3.0	■ 115	0.36	3.0	◪ 185	0.40	3.0	–	–	–	◪ 40	0.28	2.4	–	–	–
CNMM 120412E-NR	**T7325**	1.2	◪ 185	0.40	3.0	■ 140	0.36	3.0	–	–	–	–	–	–	◪ 60	0.28	2.4	–	–	–
	T7335	1.2	◪ 175	0.40	3.0	■ 135	0.36	3.0	–	–	–	–	–	–	◪ 55	0.28	2.4	–	–	–
	T8330	1.2	■ 165	0.40	3.0	■ 95	0.36	3.0	◪ 155	0.40	3.0	–	–	–	◪ 40	0.28	2.4	–	–	–
	T8430	1.2	■ 170	0.40	3.0	■ 90	0.36	3.0	◪ 135	0.40	3.0	–	–	–	◪ 35	0.28	2.4	–	–	–
	T9325	1.2	■ 205	0.40	3.0	■ 120	0.36	3.0	◪ 190	0.40	3.0	–	–	–	◪ 45	0.28	2.4	–	–	–
																				
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMM 120408E-NR2	**T7325**	0.8	◪ 165	0.40	5.0	■ 125	0.36	5.0	–	–	–	–	–	–	◪ 50	0.28	4.0	–	–	–
	T7335	0.8	◪ 155	0.40	5.0	■ 120	0.36	5.0	–	–	–	–	–	–	◪ 50	0.28	4.0	–	–	–
	T8330	0.8	■ 150	0.40	5.0	■ 90	0.36	5.0	◪ 140	0.40	5.0	–	–	–	◪ 35	0.28	4.0	–	–	–
	T8430	0.8	■ 150	0.40	5.0	■ 80	0.36	5.0	◪ 125	0.40	5.0	–	–	–	◪ 30	0.28	4.0	–	–	–
	T9315	0.8	■ 205	0.40	5.0	–	–	–	◪ 190	0.40	5.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 185	0.40	5.0	■ 110	0.36	5.0	◪ 175	0.40	5.0	–	–	–	◪ 40	0.28	4.0	–	–	–
CNMM 120412E-NR2	**T7335**	1.2	◪ 155	0.45	5.0	■ 120	0.41	5.0	–	–	–	–	–	–	◪ 50	0.32	4.0	–	–	–
	T8330	1.2	■ 150	0.45	5.0	■ 90	0.41	5.0	◪ 140	0.45	5.0	–	–	–	◪ 35	0.32	4.0	–	–	–
	T8430	1.2	■ 150	0.45	5.0	■ 80	0.41	5.0	◪ 125	0.45	5.0	–	–	–	◪ 30	0.32	4.0	–	–	–
	T9315	1.2	■ 205	0.45	5.0	–	–	–	◪ 190	0.45	5.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 185	0.45	5.0	■ 110	0.41	5.0	◪ 175	0.45	5.0	–	–	–	◪ 40	0.32	4.0	–	–	–
CNMM 160608E-NR2	**T8330**	0.8	■ 145	0.40	6.0	■ 85	0.36	6.0	◪ 135	0.40	6.0	–	–	–	◪ 35	0.32	4.8	–	–	–
	T8430	0.8	■ 150	0.40	6.0	■ 80	0.36	6.0	◪ 125	0.40	6.0	–	–	–	◪ 30	0.32	4.8	–	–	–
	T9325	0.8	■ 180	0.40	6.0	■ 105	0.36	6.0	◪ 170	0.40	6.0	–	–	–	◪ 40	0.32	4.8	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMM 160612E-NR2	**T7325**	1.2	165	0.45	6.0	125	0.41	6.0	–	–	–	–	–	–	50	0.36	4.8	–	–	–
	T7335	1.2	155	0.45	6.0	120	0.41	6.0	–	–	–	–	–	–	50	0.36	4.8	–	–	–
	T8330	1.2	145	0.45	6.0	85	0.41	6.0	135	0.45	6.0	–	–	–	35	0.36	4.8	–	–	–
	T8430	1.2	150	0.45	6.0	80	0.41	6.0	125	0.45	6.0	–	–	–	30	0.36	4.8	–	–	–
	T9315	1.2	205	0.45	6.0	–	–	–	190	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.45	6.0	110	0.41	6.0	175	0.45	6.0	–	–	–	40	0.36	4.8	–	–	–
CNMM 160616E-NR2	**T7325**	1.6	165	0.50	6.0	125	0.45	6.0	–	–	–	–	–	–	50	0.40	4.8	–	–	–
	T7335	1.6	160	0.50	6.0	120	0.45	6.0	–	–	–	–	–	–	50	0.40	4.8	–	–	–
	T9325	1.6	180	0.50	6.0	105	0.45	6.0	170	0.50	6.0	–	–	–	40	0.40	4.8	–	–	–
CNMM 190612E-NR2	**T7325**	1.2	155	0.45	9.0	120	0.41	9.0	–	–	–	–	–	–	50	0.36	7.2	–	–	–
	T7335	1.2	145	0.45	9.0	110	0.41	9.0	–	–	–	–	–	–	45	0.36	7.2	–	–	–
	T8330	1.2	140	0.45	9.0	80	0.41	9.0	130	0.45	9.0	–	–	–	35	0.36	7.2	–	–	–
	T8430	1.2	140	0.45	9.0	75	0.41	9.0	115	0.45	9.0	–	–	–	30	0.36	7.2	–	–	–
	T9325	1.2	175	0.45	9.0	105	0.41	9.0	165	0.45	9.0	–	–	–	35	0.36	7.2	–	–	–
CNMM 190616E-NR2	**T7325**	1.6	160	0.50	9.0	120	0.45	9.0	–	–	–	–	–	–	50	0.40	7.2	–	–	–
	T7335	1.6	150	0.50	9.0	115	0.45	9.0	–	–	–	–	–	–	45	0.40	7.2	–	–	–
	T8330	1.6	140	0.50	9.0	80	0.45	9.0	130	0.50	9.0	–	–	–	35	0.40	7.2	–	–	–
	T8430	1.6	140	0.50	9.0	75	0.45	9.0	115	0.50	9.0	–	–	–	30	0.40	7.2	–	–	–
	T9315	1.6	195	0.50	9.0	–	–	–	185	0.50	9.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	175	0.50	9.0	105	0.45	9.0	165	0.50	9.0	–	–	–	35	0.40	7.2	–	–	–
CNMM 190624E-NR2	**T7335**	2.4	130	0.80	9.0	100	0.72	9.0	–	–	–	–	–	–	40	0.56	7.2	–	–	–
	T9325	2.4	150	0.80	9.0	90	0.72	9.0	140	0.80	9.0	–	–	–	30	0.56	7.2	–	–	–
CNMM 250924E-NR2	**T7325**	2.4	100	0.80	12.0	75	0.72	12.0	–	–	–	–	–	–	30	0.56	9.6	–	–	–
	T7335	2.4	95	0.80	12.0	70	0.72	12.0	–	–	–	–	–	–	30	0.56	9.6	–	–	–
	T8430	2.4	80	0.80	12.0	45	0.72	12.0	65	0.80	12.0	–	–	–	15	0.56	9.6	–	–	–
	T9315	2.4	110	0.80	12.0	–	–	–	100	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	100	0.80	12.0	60	0.72	12.0	95	0.80	12.0	–	–	–	20	0.56	9.6	–	–	–
																				
			NRM geometry with positive design for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMM 250924-NRM	**T7325**	2.4	95	0.70	10.0	70	0.63	10.0	–	–	–	–	–	–	30	0.49	8.0	–	–	–
	T7335	2.4	90	0.70	10.0	70	0.63	10.0	–	–	–	–	–	–	25	0.49	8.0	–	–	–
	T9315	2.4	115	0.70	10.0	–	–	–	105	0.70	10.0	–	–	–	–	–	–	–	–	–
																				
			OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
CNMM 120408E-OR	**T8330**	0.8	150	0.40	5.0	90	0.36	5.0	140	0.40	5.0	–	–	–	35	0.28	4.0	–	–	–
	T8430	0.8	150	0.40	5.0	80	0.36	5.0	125	0.40	5.0	–	–	–	30	0.28	4.0	–	–	–
	T9315	0.8	205	0.40	5.0	–	–	–	190	0.40	5.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.40	5.0	110	0.36	5.0	175	0.40	5.0	–	–	–	40	0.28	4.0	–	–	–
	T9335	0.8	160	0.40	5.0	95	0.36	5.0	–	–	–	–	–	–	35	0.28	4.0	–	–	–
CNMM 120412E-OR	**T9315**	1.2	205	0.45	5.0	–	–	–	190	0.45	5.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.45	5.0	110	0.41	5.0	175	0.45	5.0	–	–	–	40	0.36	4.0	–	–	–
	T9335	1.2	165	0.45	5.0	95	0.41	5.0	–	–	–	–	–	–	35	0.36	4.0	–	–	–
CNMM 120416E-OR	**T9325**	1.6	190	0.50	5.0	110	0.45	5.0	180	0.50	5.0	–	–	–	40	0.40	4.0	–	–	–
	T9335	1.6	165	0.50	5.0	95	0.45	5.0	–	–	–	–	–	–	35	0.40	4.0	–	–	–
CNMM 160608E-OR	**T9315**	0.8	205	0.40	6.0	–	–	–	190	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	180	0.40	6.0	105	0.36	6.0	170	0.40	6.0	–	–	–	40	0.32	4.8	–	–	–
	T9335	0.8	160	0.40	6.0	95	0.36	6.0	–	–	–	–	–	–	35	0.32	4.8	–	–	–
CNMM 160612E-OR	**T8430**	1.2	150	0.45	6.0	80	0.41	6.0	125	0.45	6.0	–	–	–	30	0.36	4.8	–	–	–
	T9315	1.2	205	0.45	6.0	–	–	–	190	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.45	6.0	110	0.41	6.0	175	0.45	6.0	–	–	–	40	0.36	4.8	–	–	–

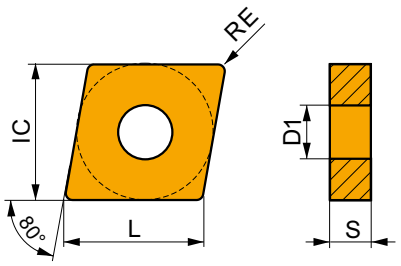
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
			P																	
OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
CNMM 160616E-OR	**T9315**	1.6	205	0.50	6.0	–	–	–	190	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	180	0.50	6.0	105	0.45	6.0	170	0.50	6.0	–	–	–	40	0.40	4.8	–	–	–
CNMM 190612E-OR	**T8330**	1.2	140	0.45	9.0	80	0.41	9.0	130	0.45	9.0	–	–	–	35	0.36	7.2	–	–	–
	T8430	1.2	140	0.45	9.0	75	0.41	9.0	115	0.45	9.0	–	–	–	30	0.36	7.2	–	–	–
	T9315	1.2	195	0.45	9.0	–	–	–	185	0.45	9.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	175	0.45	9.0	105	0.41	9.0	165	0.45	9.0	–	–	–	35	0.36	7.2	–	–	–
	T9335	1.2	150	0.45	9.0	90	0.41	9.0	–	–	–	–	–	–	30	0.36	7.2	–	–	–
CNMM 190616E-OR	**T8330**	1.6	140	0.50	9.0	80	0.45	9.0	130	0.50	9.0	–	–	–	35	0.40	7.2	–	–	–
	T8345	1.6	120	0.50	9.0	70	0.45	9.0	110	0.50	9.0	–	–	–	30	0.40	7.2	–	–	–
	T8430	1.6	140	0.50	9.0	75	0.45	9.0	115	0.50	9.0	–	–	–	30	0.40	7.2	–	–	–
	T9315	1.6	195	0.50	9.0	–	–	–	185	0.50	9.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	175	0.50	9.0	105	0.45	9.0	165	0.50	9.0	–	–	–	35	0.40	7.2	–	–	–
	T9335	1.6	155	0.50	9.0	90	0.45	9.0	–	–	–	–	–	–	30	0.40	7.2	–	–	–
CNMM 190624E-OR	**T9315**	2.4	165	0.80	9.0	–	–	–	155	0.80	9.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	150	0.80	9.0	90	0.72	9.0	140	0.80	9.0	–	–	–	30	0.56	7.2	–	–	–
CNMM 250924E-OR	**T8330**	2.4	75	1.00	12.0	45	0.90	12.0	70	1.00	12.0	–	–	–	15	0.70	9.6	–	–	–
	T8430	2.4	75	1.00	12.0	40	0.90	12.0	60	1.00	12.0	–	–	–	15	0.70	9.6	–	–	–
	T9315	2.4	100	1.00	12.0	–	–	–	95	1.00	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	95	1.00	12.0	55	0.90	12.0	90	1.00	12.0	–	–	–	20	0.70	9.6	–	–	–
	T9335	2.4	75	1.00	12.0	45	0.90	12.0	–	–	–	–	–	–	15	0.70	9.6	–	–	–
			S																	
OR1 geometry for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																				
CNMM 190616E-OR1	**T9325**	1.6	175	0.50	9.0	105	0.45	9.0	165	0.50	9.0	–	–	–	35	0.35	7.2	–	–	–
	T9335	1.6	155	0.50	9.0	90	0.45	9.0	–	–	–	–	–	–	30	0.35	7.2	–	–	–
			S																	
Geometry 923 for semi-rough to heavy-rough machining, and continuous to heavy interrupted cuts.																				
CNMM 250924S-923	**T8330**	2.4	75	0.85	12.0	45	0.77	12.0	70	0.85	12.0	–	–	–	15	0.60	9.6	–	–	–
	T8430	2.4	75	0.85	12.0	40	0.77	12.0	60	0.85	12.0	–	–	–	15	0.60	9.6	–	–	–
	T9335	2.4	75	0.85	12.0	45	0.77	12.0	–	–	–	–	–	–	15	0.60	9.6	–	–	–

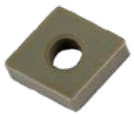
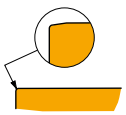
CNGA CER

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.90	4.76



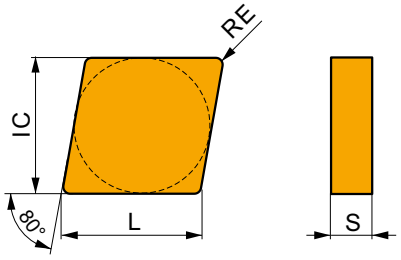
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
  HSC T																				
For machining with high speeds and continuous cuts.																				
CNGA 120404 T02020	**TC100**	0.4	–	–	–	–	–	–	590	0.10	2.0	–	–	–	–	–	–	–	–	–
CNGA 120408 T01020	**TC100**	0.8	–	–	–	–	–	–	550	0.20	2.0	–	–	–	–	–	–	–	–	–
CNGA 120412 T01020	**TC100**	1.2	–	–	–	–	–	–	540	0.25	2.0	–	–	–	–	–	–	–	–	–

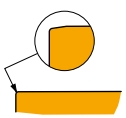
CNGN CER

PRAMET

	IC [mm]	L [mm]	S [mm]
1204	12.700	12.90	4.76
1207	12.700	12.90	7.94



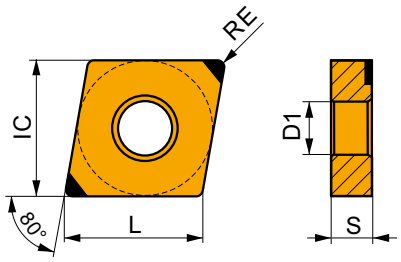
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
  HSC T																				
For machining with high speeds and continuous cuts.																				
CNGN 120408 T01020	**TC100**	0.8	–	–	–	–	–	–	550	0.20	2.0	–	–	–	–	–	–	–	–	–
CNGN 120708 T01020	**TC100**	0.8	–	–	–	–	–	–	550	0.20	2.0	–	–	–	–	–	–	–	–	–
CNGN 120712 T01020	**TC100**	1.2	–	–	–	–	–	–	540	0.25	2.0	–	–	–	–	–	–	–	–	–

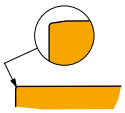
CNGA CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.90	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC		S															
			For finish machining and continuous cuts.																	
CNGA 120404S01020B	TB310	0.4	–	–	–	–	–	–	510	0.10	0.4	–	–	–	135	0.07	0.3	105	0.15	1.0
CNGA 120408S01020B	TB310	0.8	–	–	–	–	–	–	530	0.15	0.6	–	–	–	140	0.11	0.5	110	0.15	1.0

DCBN(RL) EXT

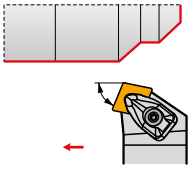
P M K N S H

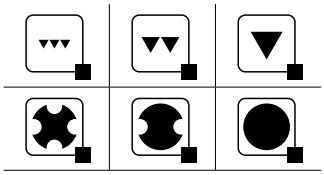
PRAMET

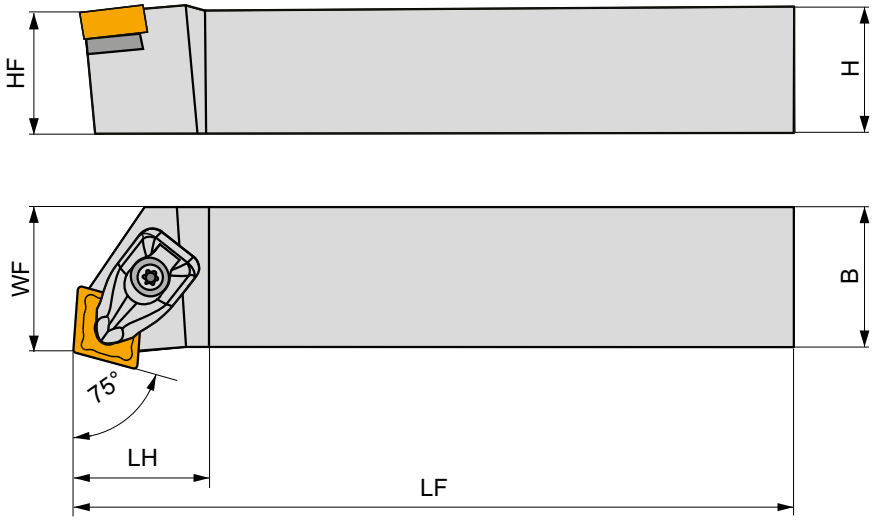
D

External Double Clamp Turning Holder with 75° Cutting Angle for CN.. Insert

External Right/Left hand double clamp 75° tool holder. Suited for longitudinal and face turning without shoulder and chamfering with negative CN.. 12 up to 19 size inserts. Available with shanks 20x20 up to 40x40 mm. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg			
R	**DCBNR 2020 K 12**	20	20	20	17	125	34.2	-6	-6	0.43	GI043	DC12	AT001
	DCBNR 2525 M 12	25	25	25	22	150	34.6	-6	-6	0.76	GI043	DC12	AT001
	DCBNR 3225 P 12	32	25	32	22	170	34.6	-6	-6	1.09	GI043	DC12	AT001
	DCBNR 2525 M 16	25	25	25	22	150	41.5	-6	-6	0.80	GI050	DC16	AT005
	DCBNR 3225 P 16	32	25	32	22	170	32	-6	-6	1.11	GI050	DC16	AT005
	DCBNR 3232 P 19	32	32	32	27	170	46.1	-6	-6	1.39	GI042	DC19	–
	DCBNR 4040 S 19	40	40	40	35	250	46.7	-6	-6	3.16	GI042	DC19	–
L	**DCBNL 2020 K 12**	20	20	20	17	125	34.2	-6	-6	0.43	GI043	DC12	AT001
	DCBNL 2525 M 12	25	25	25	22	150	34.6	-6	-6	0.76	GI043	DC12	AT001
	DCBNL 3225 P 12	32	25	32	22	170	34.6	-6	-6	1.09	GI043	DC12	AT001
	DCBNL 2525 M 16	25	25	25	22	150	41.5	-6	-6	0.79	GI050	DC16	AT005
	DCBNL 3225 P 16	32	25	32	22	170	32	-6	-6	1.11	GI050	DC16	AT005
	DCBNL 3232 P 19	32	32	32	27	170	46.1	-6	-6	1.39	GI042	DC19	–

GI042	CN.. 1906..
GI043	CN.. 1204..
GI050	CN.. 1606..

		Nm				
DC12	DCS 12	3.9	DCS 234-01	US 2002-T15P	FLAG T15P/3,5	–
DC16	DCS 16	6.4	DCS 234-03	US 2007-T20P	–	LK T20P
DC19	DCS 19	6.4	DCS 236-01	US 2007-T20P	–	LK T20P

			
AT001a	CN.. 1207..	–	DCS 234-02
AT005a	CN.. 1607..	–	DCS 234-04
AT001b	CER CN.N 1204..	DCS 12C4	–
AT001c	CER CN.A 1204..	DCS 12C2	–
AT005b	CER CN.N 1606..	DCS 16C4	–
AT005c	CER CN.A 1606..	DCS 16C2	–

DCKN(RL) EXT

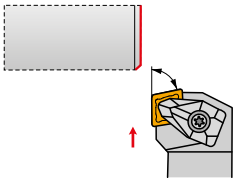
P M K N S H

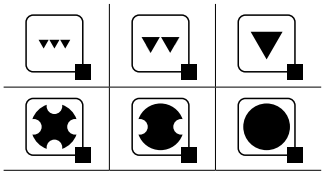
PRAMET

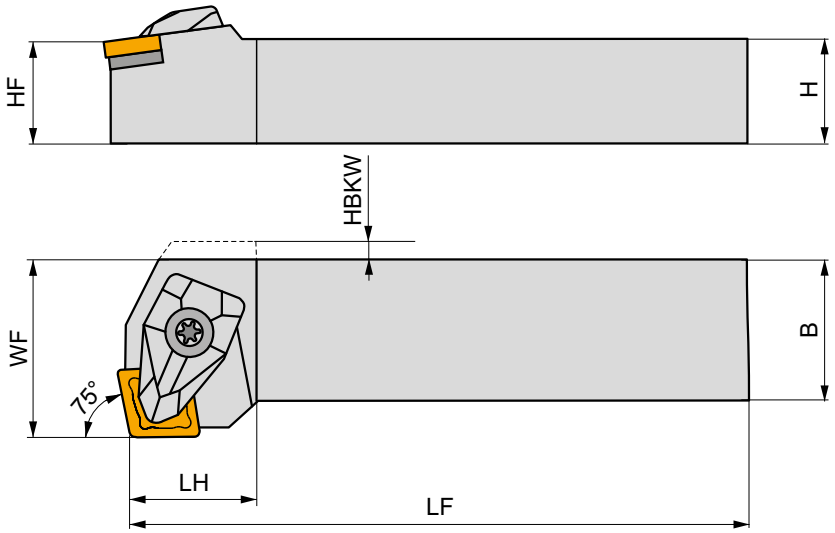
D

External Double Clamp Holder, 75° (Face) Cutting Angle for CN.. Insert

External Right/Left hand double clamp 75° tool holder. Suited for face turning and occasionally chamfering with negative CN.. 12 or 16 size inserts. Available with shanks 20x20 up to 32x32 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	HBKW [mm]	LAMS [°]	GAMO [°]	kg			
R	**DCKNR 2020 K 12**	20	20	20	25	125	21.2	4.5	-6	-6	0.46	GI043	DC12	AT001
	DCKNR 2525 M 12	25	25	25	32	150	21.1	–	-6	-6	0.80	GI043	DC12	AT001
	DCKNR 3225 P 12	32	25	32	32	170	21.1	–	-6	-6	1.14	GI043	DC12	AT001
	DCKNR 3232 P 16	32	32	32	40	170	26	–	-6	-6	1.46	GI050	DC16	AT005
L	**DCKNL 2020 K 12**	20	20	20	25	125	21.2	4.5	-6	-6	0.46	GI043	DC12	AT001
	DCKNL 2525 M 12	25	25	25	32	150	21.1	–	-6	-6	0.80	GI043	DC12	AT001
	DCKNL 3225 P 12	32	25	32	32	170	21.1	–	-6	-6	1.13	GI043	DC12	AT001
	DCKNL 3232 P 16	32	32	32	40	170	26	–	-6	-6	1.46	GI050	DC16	AT005

GI043	CN.. 1204..
GI050	CN.. 1606..

DC12	DCS 12	3.9	DCS 234-01	US 2002-T15P	FLAG T15P/3,5	–
DC16	DCS 16	6.4	DCS 234-03	US 2007-T20P	–	LK T20P

AT001a	CN.. 1207..	–	DCS 234-02
AT005a	CN.. 1607..	–	DCS 234-04
AT001b	CER CN.N 1204..	DCS 12C4	–
AT001c	CER CN.A 1204..	DCS 12C2	–
AT005b	CER CN.N 1606..	DCS 16C4	–
AT005c	CER CN.A 1606..	DCS 16C2	–

DCLN(RL) EXT

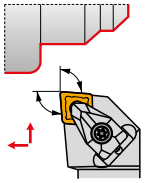
P M K N S H

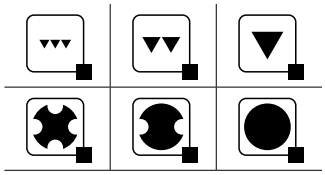
PRAMET

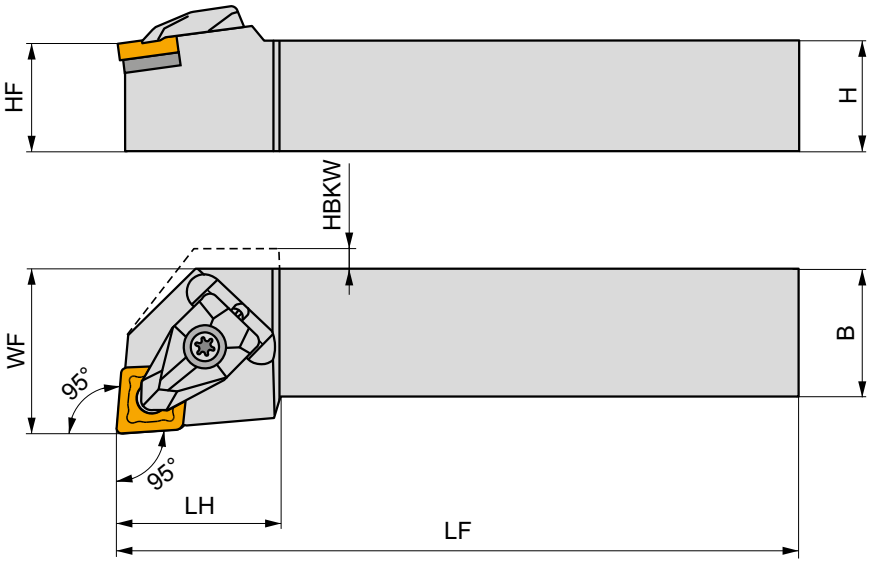
D

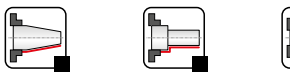
External Double Clamp Turning Holder with 95° Cutting Angle for CN.. Insert

External Right/Left hand double clamp 95° tool holder. Suited for longitudinal turning, chamfering and facing with shoulder, using negative CN.. 09 up to 19 size inserts and available in 16x16 up to 40x40 mm shanks. Body treated for longer tool life.









	Product	H	B	HF	WF	LF	LH	HBKW	LAMS	GAMO	kg			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[°]				
R	DCLNR 1616 H 09	16	16	16	20	100	25	–	-6	-6	0.27	GI133	DC09	–
	DCLNR 2020 K 09	20	20	20	25	125	25	–	-6	-6	0.44	GI133	DC09	–
	DCLNR 2525 M 09	25	25	25	32	150	25	–	-6	-6	0.78	GI133	DC09	–
	DCLNR 1616 H 12	16	16	16	20	100	32.3	4.5	-6	-6	0.26	GI043	DCI12	AT001
	DCLNR 2020 K 12	20	20	20	25	125	30	–	-6	-6	0.44	GI043	DC12	AT001
	DCLNR 2525 M 12	25	25	25	32	150	30	–	-6	-6	0.78	GI043	DC12	AT001
	DCLNR 3225 P 12	32	25	32	32	170	30	–	-6	-6	1.10	GI043	DC12	AT001
	DCLNR 2525 M 16	25	25	25	32	150	39	–	-6	-6	0.81	GI050	DC16	AT005
	DCLNR 3225 P 16	32	25	32	32	170	35	–	-6	-6	1.20	GI050	DC16	AT005
	DCLNR 3232 P 19	32	32	32	40	170	40	–	-6	-6	1.55	GI042	DC19	–
	DCLNR 4040 S 19	40	40	40	50	250	43.4	–	-6	-6	3.26	GI042	DC19	–
L	DCLNL 1616 H 09	16	16	16	20	100	24.8	–	-6	-6	0.22	GI133	DC09	–
	DCLNL 2020 K 09	20	20	20	25	125	24.8	–	-6	-6	0.42	GI133	DC09	–
	DCLNL 2525 M 09	25	25	25	32	150	24.8	–	-6	-6	0.76	GI133	DC09	–
	DCLNL 1616 H 12	16	16	16	20	100	32.2	4.5	-6	-6	0.26	GI043	DCI12	AT001
	DCLNL 2020 K 12	20	20	20	25	125	32	–	-6	-6	0.44	GI043	DC12	AT001
	DCLNL 2525 M 12	25	25	25	32	150	32	–	-6	-6	0.78	GI043	DC12	AT001
	DCLNL 3225 P 12	32	25	32	32	170	32	–	-6	-6	1.10	GI043	DC12	AT001
	DCLNL 2525 M 16	25	25	25	32	150	39	–	-6	-6	0.81	GI050	DC16	AT005
	DCLNL 3225 P 16	32	25	32	32	170	39	–	-6	-6	1.20	GI050	DC16	AT005
	DCLNL 3232 P 19	32	32	32	40	170	43.2	–	-6	-6	1.51	GI042	DC19	–
	DCLNL 4040 S 19	40	40	40	50	250	43.4	–	-6	-6	3.26	GI042	DC19	–

GI042	CN.. 1906..
GI043	CN.. 1204..

GI050	CN.. 1606..
GI133	CN.. 0903..

		Nm				
DC09	DCS 09	1.7	DCS 236-04	US 2004-T09P	FLAG T09P	–
DC12	DCS 12	3.9	DCS 234-01	US 2002-T15P	FLAG T15P/3,5	–
DC16	DCS 16	6.4	DCS 234-03	US 2007-T20P	–	LK T20P
DC19	DCS 19	6.4	DCS 236-01	US 2007-T20P	–	LK T20P
DCI12	DCS 12	3.9	DCS 236-03	US 2002-T15P	FLAG T15P/3,5	–

AT001a	CN.. 1207..	–	DCS 234-02
AT005a	CN.. 1607..	–	DCS 234-04
AT001b	CER CN.N 1204..	DCS 12C4	–
AT001c	CER CN.A 1204..	DCS 12C2	–
AT005b	CER CN.N 1606..	DCS 16C4	–
AT005c	CER CN.A 1606..	DCS 16C2	–

PCBN(RL) EXT

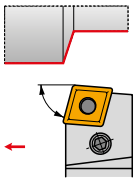
P M K N S H

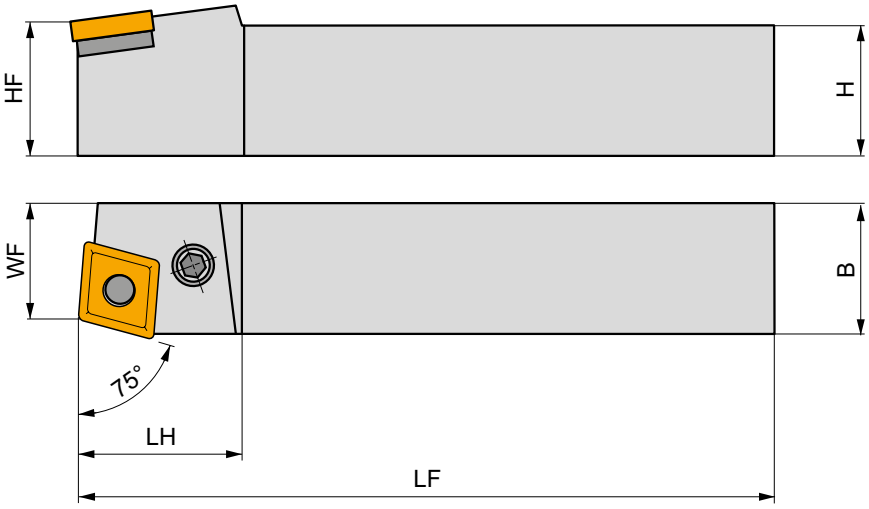
PRAMET

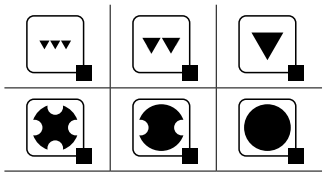
P

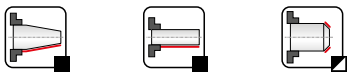
External Lever Lock Turning Holder with 75° Cutting Angle for CN.. Insert

External Right/Left hand lever lock 75° tool holder. Suited for external chamfering, taper and longitudinal turning without shoulder, using negative CN.. 12, 16, 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shanks. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PCBNR 2020 K 12	20	20	20	17	125	36	-6	-6	0.43	GI043	PC22
	PCBNR 2525 M 12	25	25	25	22	150	36	-6	-6	0.63	GI043	PC20
	PCBNR 3225 P 12	32	25	32	22	170	36	-6	-6	0.70	GI043	PC20
	PCBNR 3232 P 16	32	32	32	27	170	40	-6	-6	1.36	GI050	PC40
	PCBNR 3232 P 19	32	32	32	27	170	45	-6	-6	1.10	GI042	PC50
	PCBNR 4040 S 19	40	40	40	35	250	45	-6	-6	3.15	GI042	PC50
	PCBNR 4040 S 25	40	40	40	35	250	45	-6	-6	3.10	GI062	PC60
	PCBNR 5050 T 25	50	50	50	43	300	50	-6	-6	5.80	GI062	PC60
L	PCBNL 2020 K 12	20	20	20	17	125	36	-6	-6	0.38	GI043	PC22
	PCBNL 2525 M 12	25	25	25	22	150	36	-6	-6	0.73	GI043	PC20
	PCBNL 3225 P 12	32	25	32	22	170	36	-6	-6	0.70	GI043	PC20
	PCBNL 3232 P 16	32	32	32	27	170	40	-6	-6	1.25	GI050	PC40
	PCBNL 3232 P 19	32	32	32	27	170	45	-6	-6	1.10	GI042	PC50
	PCBNL 4040 S 19	40	40	40	35	250	45	-6	-6	3.15	GI042	PC50
	PCBNL 4040 S 25	40	40	40	35	250	45	-6	-6	3.15	GI062	PC60
	PCBNL 5050 T 25	50	50	50	43	300	50	-6	-6	5.80	GI062	PC60

GI042	CN.. 1906..
GI043	CN.. 1204..
GI050	CN.. 1606..
GI062	CN.. 2509..

				Nm					
PC20	CNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PC22	CNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PC40	CNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PC50	CNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PC60	CNU 250620	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5

PCKN(RL) EXT

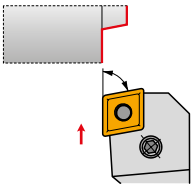
P M K N S H

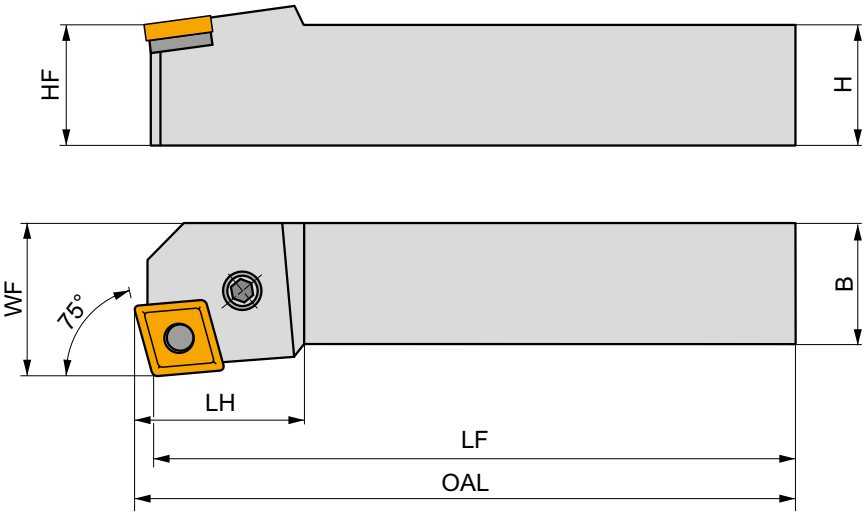
PRAMET

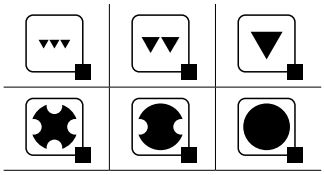
P

External Lever Lock Holder, 75° (Face Turning) Cutting Angle for CN.. Insert

External Right/Left hand lever lock 75° tool holder. Suited for external chamfering and face turning with shoulder using negative CN.. 12, 16 or 19 size inserts. Available in 20x20 up to 40x40 mm shanks. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PCKNR 2020 K 12	20	20	20	25	125	36	-6	-6	0.42	GI043	PC22
	PCKNR 2525 M 12	25	25	25	32	150	36	-6	-6	0.79	GI043	PC20
	PCKNR 3225 P 12	32	25	32	32	170	36	-6	-6	0.85	GI043	PC20
	PCKNR 3232 P 16	32	32	32	40	170	40	-6	-6	1.43	GI050	PC40
	PCKNR 3232 P 19	32	32	32	40	170	45	-6	-6	1.40	GI042	PC50
	PCKNR 4040 S 19	40	40	40	50	250	45	-6	-6	3.25	GI042	PC50
L	PCKNL 2020 K 12	20	20	20	25	125	36	-6	-6	0.42	GI043	PC22
	PCKNL 2525 M 12	25	25	25	32	150	36	-6	-6	0.78	GI043	PC20
	PCKNL 3225 P 12	32	25	32	32	170	36	-6	-6	1.15	GI043	PC20
	PCKNL 3232 P 16	32	32	32	40	170	40	-6	-6	1.40	GI050	PC40
	PCKNL 3232 P 19	32	32	32	40	170	45	-6	-6	1.40	GI042	PC50
	PCKNL 4040 S 19	40	40	40	50	250	45	-6	-6	3.27	GI042	PC50

GI042	CN.. 1906..
GI043	CN.. 1204..
GI050	CN.. 1606..

				Nm					
PC20	CNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PC22	CNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PC40	CNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PC50	CNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5

PCLN(RL) EXT

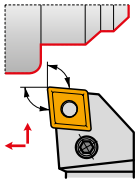
P M K N S H

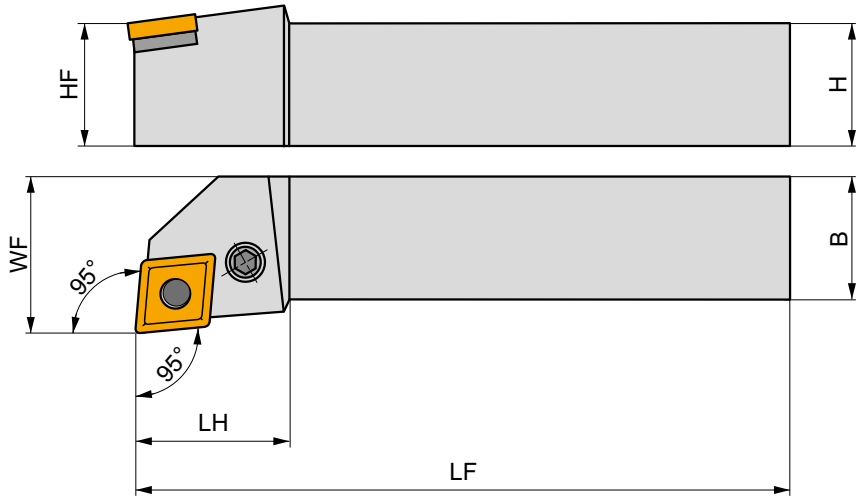
PRAMET

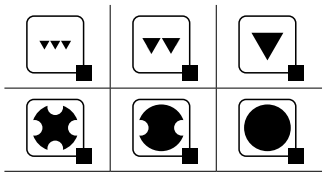
P

External Lever Lock Turning Holder with 95° Cutting Angle for CN.. Insert

External Right/Left hand lever lock 95° tool holder. Suited for external taper, face, longitudinal with shoulder turning and chamfering with negative CN.. 12, 16 , 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shanks. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg	GI	PC
R	PCLNR 2020 K 12	20	20	20	25	125	36	-6	-6	0.44	GI043	PC22
	PCLNR 2525 M 12	25	25	25	32	150	36	-6	-6	0.68	GI043	PC20
	PCLNR 3225 P 12	32	25	32	32	170	36	-6	-6	0.98	GI043	PC20
	PCLNR 3225 P 16	32	25	32	32	170	40	-6	-6	1.10	GI050	PC40
	PCLNR 3232 P 19	32	32	32	40	170	45	-6	-6	1.40	GI042	PC50
	PCLNR 4040 R 19	40	40	40	50	200	45	-6	-6	2.50	GI042	PC50
	PCLNR 4040 S 19	40	40	40	50	250	45	-6	-6	3.19	GI042	PC50
	PCLNR 4040 S 25	40	40	40	50	250	45	-6	-6	3.15	GI062	PC60
	PCLNR 5050 T 25	50	50	50	60	300	50	-6	-6	5.90	GI062	PC60
L	PCLNL 2020 K 12	20	20	20	25	125	36	-6	-6	0.42	GI043	PC22
	PCLNL 2525 M 12	25	25	25	32	150	36	-6	-6	0.75	GI043	PC20
	PCLNL 3225 P 12	32	25	32	32	170	36	-6	-6	1.10	GI043	PC20
	PCLNL 3225 P 16	32	25	32	32	170	40	-6	-6	1.10	GI050	PC40
	PCLNL 3232 P 19	32	32	32	40	170	45	-6	-6	1.42	GI042	PC50
	PCLNL 4040 R 19	40	40	40	50	200	45	-6	-6	2.60	GI042	PC50
	PCLNL 4040 S 19	40	40	40	50	250	45	-6	-6	3.19	GI042	PC50
	PCLNL 4040 S 25	40	40	40	50	250	45	-6	-6	2.45	GI062	PC60
	PCLNL 5050 T 25	50	50	50	60	300	50	-6	-6	5.90	GI062	PC60

GI	
GI042	CN.. 1906..
GI043	CN.. 1204..
GI050	CN.. 1606..
GI062	CN.. 2509..

				Nm					
PC20	CNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PC22	CNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PC40	CNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PC50	CNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PC60	CNU 250620	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5

C.-DCLN(RL) EXT

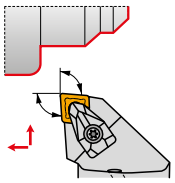
P M K N S H

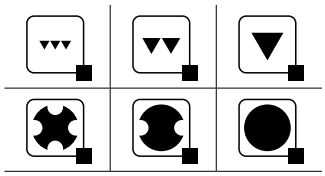
PRAMET

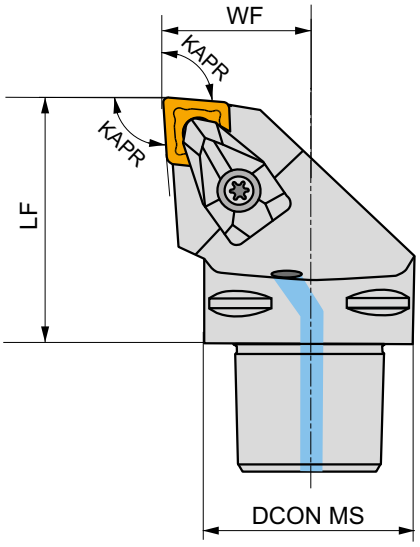
D

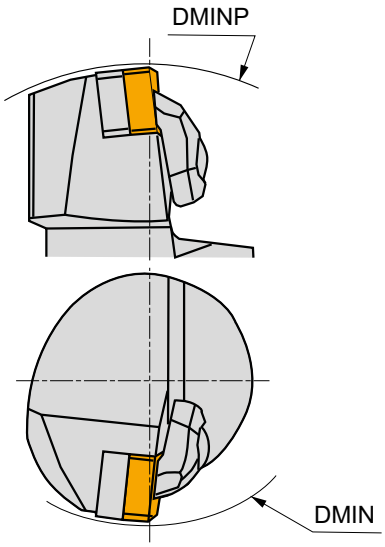
Ext. PSC Quick Change Tool, Double Clamp, 95° Cutting Angle for CN.. Insert

External Right/Left hand double clamp tool, through coolant, with 95° cutting angle for longitudinal turning, chamfering and face turning with shoulder, using negative CN.. 12 up to 19 size inserts. Available with PSC (Polygon Shank Coupling) C3 up to C8. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	C3-DCLNR-22045-12	32	60	121	22	45	95	-6	-6	✓	0.25	GI043	C-DC12	AT001
	C4-DCLNR-27050-12	40	110	140	27	50	95	-6	-6	✓	0.44	GI043	C-DC12	AT001
	C4-DCLNR-27055-16	40	125	145	27	55	95	-6	-6	✓	0.47	GI050	C-DC16	AT005
	C5-DCLNR-35060-12	50	110	165	35	60	95	-6	-6	✓	0.79	GI043	C-DC12	AT001
	C5-DCLNR-35060-16	50	125	165	35	60	95	-6	-6	✓	0.80	GI050	C-DC16	AT005
	C6-DCLNR-45065-12	63	110	190	45	65	95	-6	-6	✓	1.32	GI043	C-DC12	AT001
	C6-DCLNR-45065-16	63	125	190	45	65	95	-6	-6	✓	1.34	GI050	C-DC16	AT005
	C6-DCLNR-45065-19	63	81	190	45	65	95	-6	-6	✓	1.34	GI042	C-DC19	–
	C8-DCLNR-55080-19	80	100	250	55	80	95	-6	-6	✓	2.58	GI042	C-DC19	–
L	C4-DCLNL-27050-12	40	110	140	27	50	95	-6	-6	✓	0.44	GI043	C-DC12	AT001
	C4-DCLNL-27055-16	40	125	145	27	55	95	-6	-6	✓	0.48	GI050	C-DC16	AT005
	C5-DCLNL-35060-12	50	110	165	35	60	95	-6	-6	✓	0.79	GI043	C-DC12	AT001
	C5-DCLNL-35060-16	50	125	165	35	60	95	-6	-6	✓	0.80	GI050	C-DC16	AT005
	C6-DCLNL-45065-12	63	110	190	45	65	95	-6	-6	✓	1.32	GI043	C-DC12	AT001
	C6-DCLNL-45065-16	63	125	190	45	65	95	-6	-6	✓	1.34	GI050	C-DC16	AT005
	C6-DCLNL-45065-19	63	81	190	45	65	95	-6	-6	✓	1.34	GI042	C-DC19	–
	C8-DCLNL-55080-16	80	125	250	55	80	95	-6	-6	✓	2.58	GI050	C-DC16	AT005
	C8-DCLNL-55080-19	80	100	250	55	80	95	-6	-6	✓	2.58	GI042	C-DC19	–

GI042	CN.. 1906..
GI043	CN.. 1204..
GI050	CN.. 1606..

							
C-DC12	DCS 12	3.9	DCS 234-01	US 2002-T15P	FLAG T15P/3,5	–	CN 045-01
C-DC16	DCS 16	6.4	DCS 234-03	US 2007-T20P	–	LK T20P	CN 045-01
C-DC19	DCS 19	6.4	DCS 236-01	US 2007-T20P	–	LK T20P	CN 045-01

			
AT001a	CN.. 1207..	–	DCS 234-02
AT005a	CN.. 1607..	–	DCS 234-04
AT001b	CER CN.N 1204..	DCS 12C4	–
AT001c	CER CN.A 1204..	DCS 12C2	–
AT005b	CER CN.N 1606..	DCS 16C4	–
AT005c	CER CN.A 1606..	DCS 16C2	–

KHP-CBN(RL)

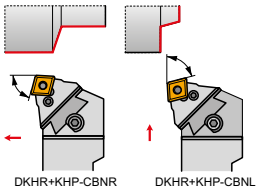
P M K

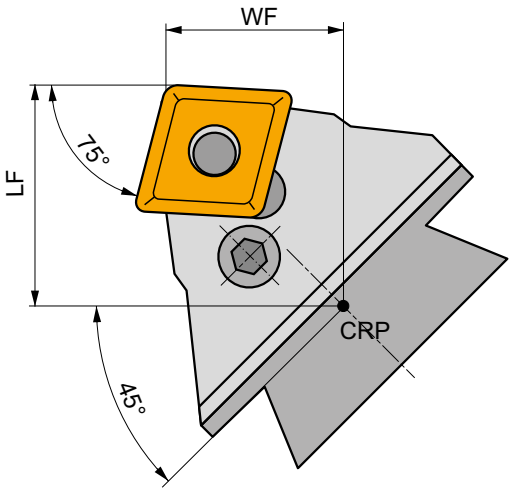
PRAMET

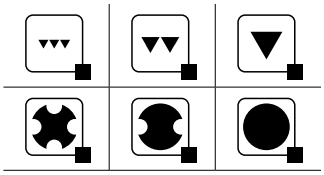
P

Modular KHP Lever Lock Turning Cartridge, 75° Cutting Angle for CN.. Inserts

Dovetailed Right/Left hand lever lock turning cartridge, 75° Cutting Angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, face turning, taper and chamfer turning with negative CN.. 25 inserts. Tool holder treated for longer tool life.







	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	KHP-CBNR 25	32	47	-6	-6	1.54	GI062	PC60
L	KHP-CBNL 25	32	47	-6	-6	1.56	GI062	PC60

GI062	CN.. 2509..

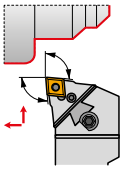
PC60	CNU 250620	PU 06	US 39	8.0 Nm	M 10x1	33	NT 08	MT 08	HXK 5

KHP-CLN(RL)

P M K

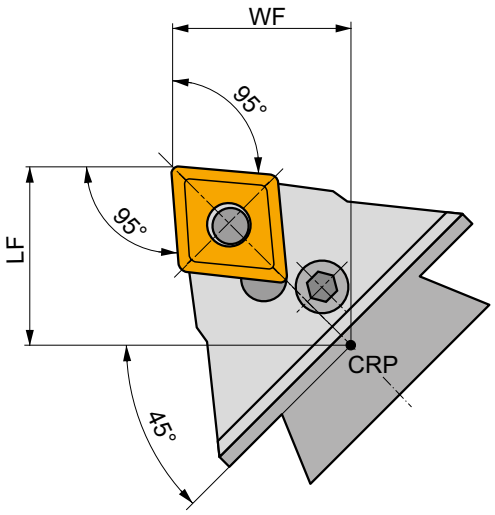
PRAMET

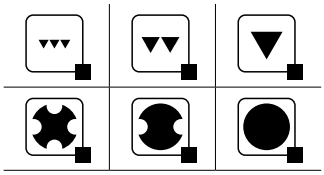
P



Modular KHP Lever Lock Turning Cartridge, 95° Cutting Angle for CN.. Inserts

Dovetailed Right/Left hand lever lock turning cartridge, 95° Cutting Angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning with shoulder, face turning with shoulder, taper and chamfer turning with negative CN.. 19 or 25 insert. Tool holder treated for longer tool life.





	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	**KHP-CLNR 19**	35	45	-6	-6	1.30	GI042	PC50
	KHP-CLNR 25	35	45	-6	-6	1.25	GI062	PC60
L	**KHP-CLNL 19**	35	45	-6	-6	1.30	GI042	PC50
	KHP-CLNL 25	35	45	-6	-6	1.25	GI062	PC60

GI042	CN.. 1906..
GI062	CN.. 2509..

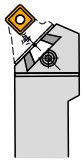
				Nm					
PC50	CNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PC60	CNU 250620	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5

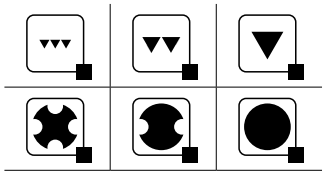
DKH(RL)

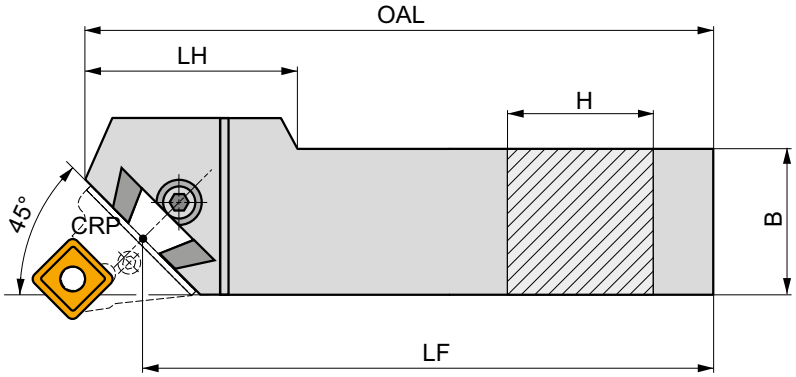
PRAMET

External Tool Holder Shank for KHP/KHS Heavy Turning Cartridges

Dovetailed Right/Left hand modular tool shank for KHP/KHS cartridges. Suited for heavy turning applications. Available with shank size 40x50 up to 60x80 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	LF [mm]	OAL [mm]	LH [mm]	kg		
R	**DKHR 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHR 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHR 6080 W-A	60	80	450	485	90	19.65	GI098	DKH10
L	**DKHL 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHL 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHL 6080 W-A	60	80	450	485	90	19.28	GI098	DKH10

GI098	KHP	KHS

DKH10	SR 14	HXK 10

DCLN(RL) INT

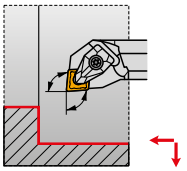
P M K N S H

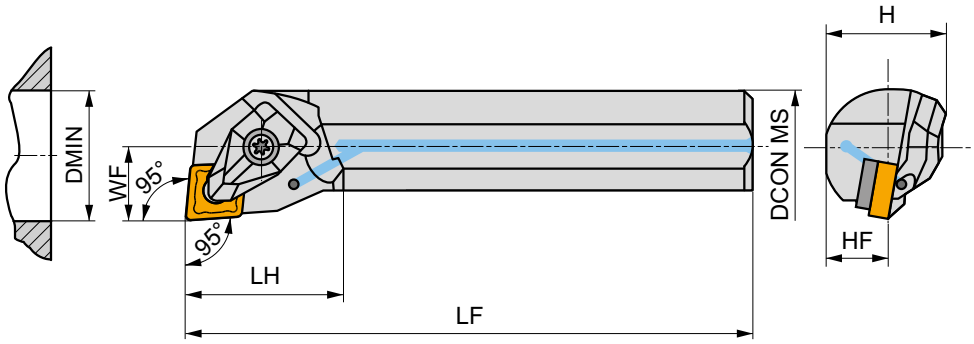
PRAMET

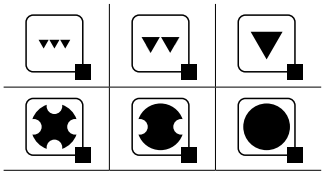
D

Internal Double Clamp Boring Bar with 95° Cutting Angle for CN.. Insert

Internal Right/Left hand double clamp boring bar, through coolant, 95° cutting angle for CN.. 09 and 12 inserts. Minimum internal turning diameter Ø32 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø25 up to Ø40 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	A25T-DCLNR 09	25	32	17	23	11.5	300	31	-11	-6	✓	1.13	GI133	DC09
	A25T-DCLNR 12	25	32	17	23	11.5	300	31	-12	-6	✓	1.12	GI043	DCI12
	A32T-DCLNR 12	32	40	22	30	15	300	30	-10	-6	✓	1.68	GI043	DCI12
	A40T-DCLNR 12	40	50	27	37	18.5	300	32	-15	-6	✓	2.56	GI043	DC12
L	A25T-DCLNL 09	25	32	17	23	11.5	300	31	-11	-6	✓	1.12	GI133	DC09
	A25T-DCLNL 12	25	32	17	23	11.5	300	31	-12	-6	✓	1.11	GI043	DCI12
	A32T-DCLNL 12	32	40	22	30	15	300	30	-10	-6	✓	1.68	GI043	DCI12
	A40T-DCLNL 12	40	50	27	37	18.5	300	32	-15	-6	✓	2.56	GI043	DC12

GI043	CN.. 1204..
GI133	CN.. 0903..

		Nm			
DC09	DCS 09	1.7	DCS 236-04	US 2004-T09P	FLAG T09P
DC12	DCS 12	3.9	DCS 234-01	US 2002-T15P	FLAG T15P/3,5
DCI12	DCS 12	3.9	DCS 236-03	US 2002-T15P	FLAG T15P/3,5

PCLN(RL) INT

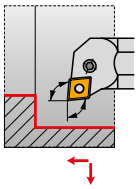
P M K N S H

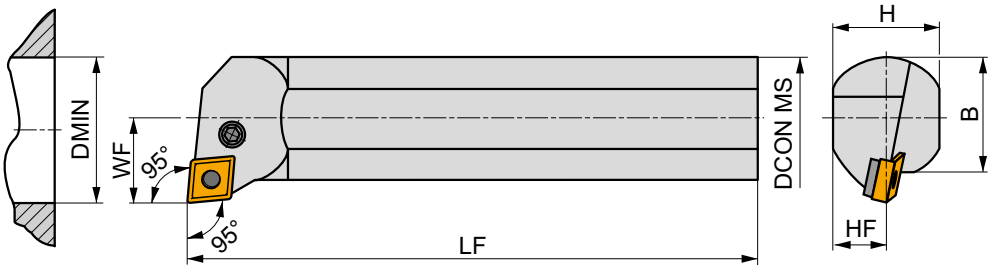
PRAMET

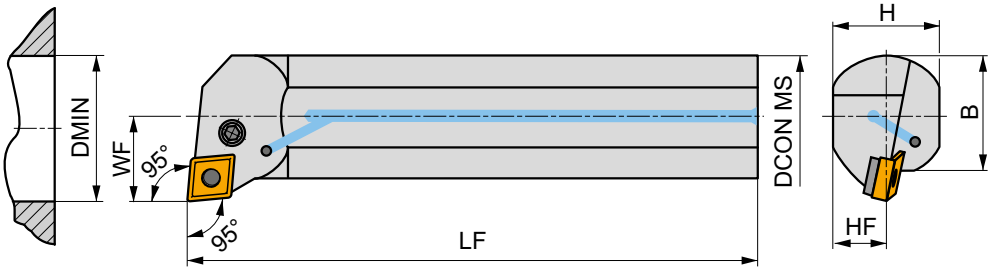
P

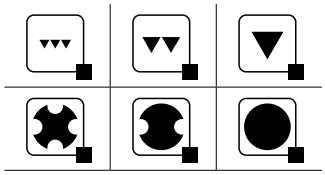
Internal Lever Lock Boring Bar with 95° Cutting Angle for CN.. Insert

Internal Right/Left hand lever lock boring bar, through coolant available, 95° cutting angle for CN.. 09, 12, 16 and 19 inserts. Minimum internal turning diameter Ø20 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Ø16 to Ø60 mm shanks available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16M-PCLNR 09	16	20	11	15	15	150	-13.5	-5	✓	0.22	GI133	PC09
	A20Q-PCLNR 09	20	25	13	18	18	180	-13.5	-5	✓	0.36	GI133	PC09
	A25R-PCLNR 12	25	32	17	23	23	200	-13	-7	✓	0.65	GI043	PC25
	S25T-PCLNR 12	25	32	17	23	23	300	-13	-7	–	1.10	GI043	PC25
	A32S-PCLNR 12	32	40	22	30	30	250	-12	-6	✓	1.48	GI043	PC21
	A40T-PCLNR 12	40	50	27	38	38	300	-12	-6	✓	2.40	GI043	PC20
	A40T-PCLNR 16	40	50	27	38	38	300	-12	-6	✓	2.90	GI050	PC41
	A50U-PCLNR 16	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI050	PC40
	A60V-PCLNR 16	60	80	43	57	58.5	400	-12	-6	✓	8.70	GI050	PC40
	A50U-PCLNR 19	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI042	PC50
	A60V-PCLNR 19	60	80	43	57	58.5	400	-12	-6	✓	8.22	GI042	PC50
L	A16M-PCLNL 09	16	20	11	15	15	150	-13.5	-5	✓	0.20	GI133	PC09
	A20Q-PCLNL 09	20	25	13	18	18	180	-13.5	-5	✓	0.34	GI133	PC09
	A25R-PCLNL 12	25	32	17	23	23	200	-13	-7	✓	0.65	GI043	PC25
	S25T-PCLNL 12	25	32	17	23	23	300	-13	-7	–	1.15	GI043	PC25
	A32S-PCLNL 12	32	40	22	30	30	250	-12	-6	✓	1.48	GI043	PC21
	A40T-PCLNL 12	40	50	27	38	38	300	-12	-6	✓	2.58	GI043	PC20
	A40T-PCLNL 16	40	50	27	38	38	300	-12	-6	✓	2.58	GI050	PC41
	A50U-PCLNL 16	50	63	35	47	48.5	350	-12	-6	✓	4.95	GI050	PC40
	A60V-PCLNL 16	60	80	43	57	58.5	400	-12	-6	✓	8.70	GI050	PC40
	A50U-PCLNL 19	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI042	PC50
	A60V-PCLNL 19	60	80	43	57	58.5	400	-12	-6	✓	8.40	GI042	PC50

GI042	CN.. 1906..
GI043	CN.. 1204..

GI050	CN.. 1606..
GI133	CN.. 0903..

PC09	–	PU 8451	PS 8290	2.0	M 5	12	–	–	HXK 2
PC20	CNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PC21	CNU 120312	PU 02	US 41	6.0	M 8x1	17	NT 05	MT 05	HXK 4
PC25	–	PU 32	US 46	5.0	M 6x0.75	13.2	–	–	HXK 3
PC40	CNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PC41	CNU 150312	PU 04	US 40	6.0	M 8x1	20.5	NT 07	MT 07	HXK 4
PC50	CNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5

C.-DCLN(RL) INT

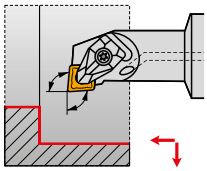
P M K N S H

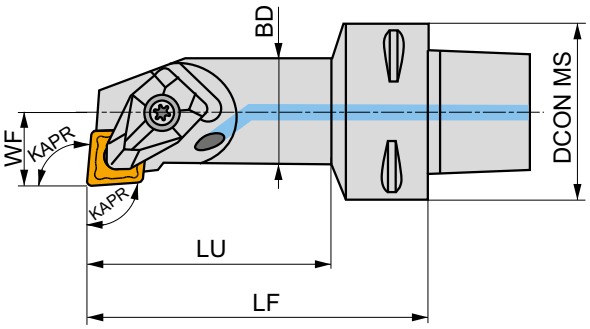
PRAMET

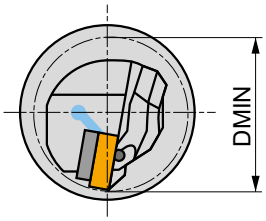
D

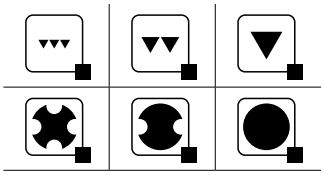
Int. PSC Quick Change Tool, Double Clamp, 95° Cutting Angle for CN.. Insert

Internal Right/Left hand double clamp tool, through coolant, with 95° cutting angle for negative CN.. 09 up to 16 inserts, Suited for a wide range of internal turning applications, minimum diameter Ø25mm. PSC shank (Polygon Shank Coupling) size C4 up to C6 with choice of lengths. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-DCLNR-13080-09	40	25	13	80	57	20	95	-14	-6	✓	0.43	GI133	DC09
	C4-DCLNR-17090-12	40	32	17	90	68	25	95	-12	-6	✓	0.53	GI043	DCI12
	C5-DCLNR-17090-12	50	32	17	90	66	25	95	-12	-6	✓	0.72	GI043	DCI12
	C6-DCLNR-17100-12	63	32	17	100	72	25	95	-12	-6	✓	1.15	GI043	DCI12
	C6-DCLNR-27140-16	63	50	27	140	114	40	95	-16	-6	✓	1.81	GI050	DC16
L	C4-DCLNL-17090-12	40	32	17	90	68	25	95	-12	-6	✓	0.53	GI043	DCI12
	C5-DCLNL-17090-12	50	32	17	90	66	25	95	-12	-6	✓	0.72	GI043	DCI12

GI043	CN.. 1204..
GI050	CN.. 1606..
GI133	CN.. 0903..

		Nm				
DC09	DCS 09	1.7	DCS 236-04	US 2004-T09P	FLAG T09P	–
DC16	DCS 16	6.4	DCS 234-03	US 2007-T20P	–	LK T20P
DCI12	DCS 12	3.9	DCS 236-03	US 2002-T15P	FLAG T15P/3,5	–

DN

CARBIDE INSERTS

DNMA

260

DNMG

260

DNMM

270

CER AND CBN INSERTS

DNGA CER

271

DNGN CER

271

DNGA CBN

272

MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
DNMG 150404E-SF	DDJNL 2020 K 15

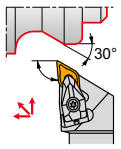
ISO TURNING – EXTERNAL

DDJN(RL) EXT

93°

DN..

11
15



20×20
32×32

273

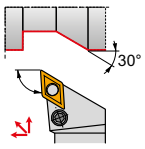
260 – 272

PDJN(RL) EXT

93°

DN..

11
15



20×20
32×32

274

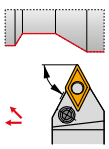
260 – 272

PDNN(RL) EXT

62°30´

DN..

11
15



20×20
32×25

275

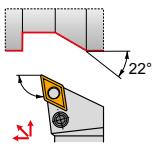
260 – 272

PDXN(RL) EXT

98°

DN..

15



20×20
32×25

276

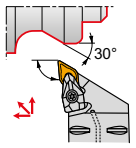
260 – 272

C.-DDJN(RL) EXT

93°

DN..

11
15



C4
C6

277

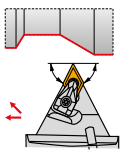
260 – 272

C.-DDNNN EXT

62,5°

DN..

15



C5
C6

278

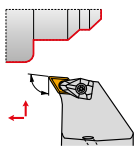
260 – 272

C.-DDUN(RL) EXT

93°

DN..

15



C5
C6

279

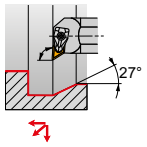
260 – 272

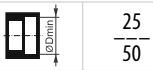
DN

ISO TURNING – INTERNAL

DDUN(RL) INT

93°





280

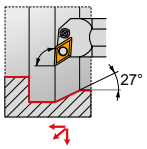
DN..

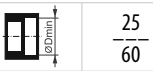
11
15

260 – 272

PDUN(RL) INT

93°





281

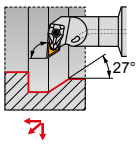
DN..

11
15

260 – 272

C.-DDUN(RL) INT

93°



282

DN..

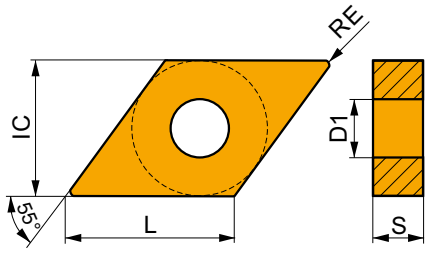
11

260 – 272

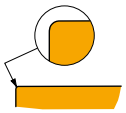
DNMA

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1504	12.700	5.16	15.50	4.76
1506	12.700	5.16	15.50	6.35



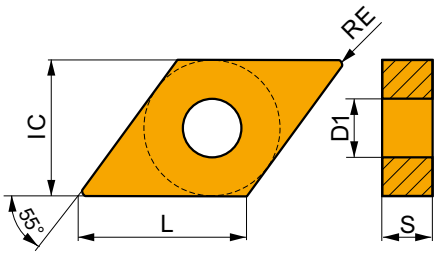
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
DNMA 150404	**T5305**	0.4	–	–	–	–	–	–	205	0.10	1.7	–	–	–	–	–	–	40	0.15	1.0
DNMA 150408	**T5305**	0.8	–	–	–	–	–	–	190	0.20	1.7	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	165	0.20	1.7	–	–	–	–	–	–	35	0.15	1.0
DNMA 150604	**T5305**	0.4	–	–	–	–	–	–	205	0.10	1.7	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	180	0.10	1.7	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.4	–	–	–	–	–	–	85	0.10	1.7	–	–	–	–	–	–	20	0.15	1.0
DNMA 150608	**T5305**	0.8	–	–	–	–	–	–	190	0.20	1.7	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	165	0.20	1.7	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	85	0.20	1.7	–	–	–	–	–	–	20	0.15	1.0
DNMA 150612	**T5305**	1.2	–	–	–	–	–	–	200	0.20	1.7	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	175	0.20	1.7	–	–	–	–	–	–	35	0.15	1.0

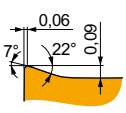
DNMG

PRAMET

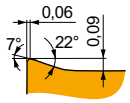
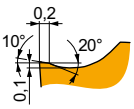
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1104	9.525	3.81	11.60	4.76
1504	12.700	5.16	15.50	4.76
1506	12.700	5.16	15.50	6.35



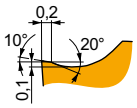
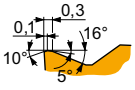
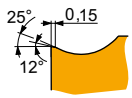
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			FF geometry with highly positive design for fine-finish machining and continuous to slightly interrupted cuts.																	
DNMG 110402E-FF	**T8315**	0.2	175	0.10	0.8	105	0.09	0.8	165	0.10	0.8	–	–	–	–	–	–	–	–	–
DNMG 110404E-FF	**T8315**	0.4	175	0.12	0.8	105	0.11	0.8	165	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8330	0.4	165	0.12	0.8	95	0.11	0.8	155	0.12	0.8	–	–	–	–	–	–	–	–	–
	T8430	0.4	205	0.12	0.8	110	0.11	0.8	170	0.12	0.8	–	–	–	–	–	–	–	–	–
DNMG 110408E-FF	**T8315**	0.8	200	0.15	0.8	120	0.14	0.8	190	0.15	0.8	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U S																	
FF geometry with highly positive design for fine-finish machining and continuous to slightly interrupted cuts.																				
DNMG 150404E-FF	**T8315**	0.4	175	0.12	1.0	105	0.11	1.0	165	0.12	1.0	–	–	–	–	–	–	–	–	–
DNMG 150604E-FF	**T7325**	0.4	190	0.12	1.0	145	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	175	0.12	1.0	105	0.11	1.0	165	0.12	1.0	–	–	–	–	–	–	–	–	–
DNMG 150608E-FF	**T7325**	0.8	210	0.15	1.0	160	0.14	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	195	0.15	1.0	115	0.14	1.0	185	0.15	1.0	–	–	–	–	–	–	–	–	–
			1 S																	
FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
DNMG 110404E-FM	**T7325**	0.4	165	0.20	0.8	125	0.18	0.8	–	–	–	–	–	–	50	0.20	0.6	–	–	–
	T8315	0.4	150	0.20	0.8	90	0.18	0.8	140	0.20	0.8	–	–	–	35	0.14	0.6	–	–	–
	T8330	0.4	145	0.20	0.8	85	0.18	0.8	135	0.20	0.8	–	–	–	35	0.14	0.6	–	–	–
	T8430	0.4	165	0.20	0.8	90	0.18	0.8	135	0.20	0.8	–	–	–	35	0.14	0.6	–	–	–
	T9310	0.4	245	0.20	0.8	–	–	–	230	0.20	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.4	225	0.20	0.8	–	–	–	210	0.20	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	200	0.20	0.8	120	0.18	0.8	190	0.20	0.8	–	–	–	45	0.20	0.6	–	–	–
DNMG 110408E-FM	**T7325**	0.8	200	0.20	0.8	155	0.18	0.8	–	–	–	–	–	–	65	0.16	0.6	–	–	–
	T8315	0.8	180	0.20	0.8	105	0.18	0.8	170	0.20	0.8	–	–	–	45	0.14	0.6	–	–	–
	T8330	0.8	175	0.20	0.8	105	0.18	0.8	165	0.20	0.8	–	–	–	40	0.14	0.6	–	–	–
	T8430	0.8	195	0.20	0.8	105	0.18	0.8	160	0.20	0.8	–	–	–	40	0.14	0.6	–	–	–
	T9310	0.8	295	0.20	0.8	–	–	–	280	0.20	0.8	–	–	–	–	–	–	–	–	–
	T9315	0.8	270	0.20	0.8	–	–	–	255	0.20	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	240	0.20	0.8	140	0.18	0.8	225	0.20	0.8	–	–	–	50	0.16	0.6	–	–	–
DNMG 150404E-FM	**T7325**	0.4	150	0.20	1.7	115	0.18	1.7	–	–	–	–	–	–	45	0.20	1.4	–	–	–
	T8330	0.4	135	0.20	1.7	80	0.18	1.7	125	0.20	1.7	–	–	–	30	0.14	1.4	–	–	–
	T8430	0.4	150	0.20	1.7	80	0.18	1.7	125	0.20	1.7	–	–	–	30	0.14	1.4	–	–	–
	T9315	0.4	210	0.20	1.7	–	–	–	195	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.20	1.7	110	0.18	1.7	180	0.20	1.7	–	–	–	40	0.20	1.4	–	–	–
DNMG 150408E-FM	**T7325**	0.8	180	0.20	1.7	140	0.18	1.7	–	–	–	–	–	–	55	0.16	1.4	–	–	–
	T8330	0.8	160	0.20	1.7	95	0.18	1.7	150	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T8430	0.8	185	0.20	1.7	100	0.18	1.7	150	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T9315	0.8	250	0.20	1.7	–	–	–	235	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	225	0.20	1.7	135	0.18	1.7	210	0.20	1.7	–	–	–	50	0.16	1.4	–	–	–
DNMG 150604E-FM	**T7325**	0.4	150	0.20	1.7	115	0.18	1.7	–	–	–	–	–	–	45	0.20	1.4	–	–	–
	T7335	0.4	150	0.20	1.7	115	0.18	1.7	–	–	–	–	–	–	45	0.20	1.4	–	–	–
	T8315	0.4	140	0.20	1.7	80	0.18	1.7	130	0.20	1.7	–	–	–	35	0.14	1.4	–	–	–
	T8330	0.4	135	0.20	1.7	80	0.18	1.7	125	0.20	1.7	–	–	–	30	0.14	1.4	–	–	–
	T8430	0.4	150	0.20	1.7	80	0.18	1.7	125	0.20	1.7	–	–	–	30	0.14	1.4	–	–	–
	T9310	0.4	230	0.20	1.7	–	–	–	215	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.4	210	0.20	1.7	–	–	–	195	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	190	0.20	1.7	110	0.18	1.7	180	0.20	1.7	–	–	–	40	0.20	1.4	–	–	–
	TT310	0.4	210	0.20	1.7	125	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150608E-FM	**T7325**	0.8	180	0.20	1.7	140	0.18	1.7	–	–	–	–	–	–	55	0.16	1.4	–	–	–
	T7335	0.8	175	0.20	1.7	135	0.18	1.7	–	–	–	–	–	–	55	0.16	1.4	–	–	–
	T8315	0.8	170	0.20	1.7	100	0.18	1.7	160	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T8330	0.8	160	0.20	1.7	95	0.18	1.7	150	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T8430	0.8	185	0.20	1.7	100	0.18	1.7	150	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T9310	0.8	275	0.20	1.7	–	–	–	260	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.8	250	0.20	1.7	–	–	–	235	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	225	0.20	1.7	135	0.18	1.7	210	0.20	1.7	–	–	–	50	0.16	1.4	–	–	–
	TT310	0.8	250	0.20	1.7	150	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150612E-FM	**T7325**	1.2	180	0.25	1.7	140	0.23	1.7	–	–	–	–	–	–	55	0.18	1.4	–	–	–
	T8430	1.2	175	0.25	1.7	95	0.23	1.7	140	0.25	1.7	–	–	–	35	0.18	1.4	–	–	–
	T9310	1.2	260	0.25	1.7	–	–	–	245	0.25	1.7	–	–	–	–	–	–	–	–	–
	T9315	1.2	240	0.25	1.7	–	–	–	225	0.25	1.7	–	–	–	–	–	–	–	–	–
	T9325	1.2	215	0.25	1.7	125	0.23	1.7	200	0.25	1.7	–	–	–	45	0.18	1.4	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

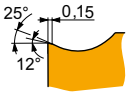
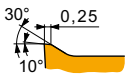
Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
DNMG 150616E-FM	**T9315**	1.6	■ 235	0.30	1.7	–	–	–	◪ 220	0.30	1.7	–	–	–	–	–	–	–	–	–
	T9325	1.6	■ 210	0.30	1.7	◪ 125	0.27	1.7	◪ 195	0.30	1.7	–	–	–	◪ 45	0.21	1.4	–	–	–
																				
DNMG 110404E-M	**T5315**	0.4	◪ 210	0.20	1.2	–	–	–	■ 195	0.20	1.2	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.4	■ 195	0.20	1.2	–	–	–	◪ 185	0.20	1.2	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.4	■ 175	0.20	1.2	–	–	–	◪ 165	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 150	0.20	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 110408E-M	**T5315**	0.8	◪ 215	0.30	1.2	–	–	–	■ 200	0.30	1.2	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.8	■ 200	0.30	1.2	–	–	–	◪ 190	0.30	1.2	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9325	0.8	■ 175	0.30	1.2	–	–	–	◪ 165	0.30	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 155	0.30	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 110412E-M	**T9315**	1.2	■ 185	0.40	1.2	–	–	–	◪ 175	0.40	1.2	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	1.2	■ 165	0.40	1.2	–	–	–	◪ 155	0.40	1.2	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 140	0.40	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150404E-M	**T5315**	0.4	◪ 200	0.20	1.9	–	–	–	■ 190	0.20	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.4	■ 190	0.20	1.9	–	–	–	◪ 180	0.20	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.4	■ 170	0.20	1.9	–	–	–	◪ 160	0.20	1.9	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 145	0.20	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150408E-M	**T5315**	0.8	◪ 205	0.30	1.9	–	–	–	■ 190	0.30	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.8	■ 190	0.30	1.9	–	–	–	◪ 180	0.30	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.8	■ 170	0.30	1.9	–	–	–	◪ 160	0.30	1.9	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 145	0.30	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150412E-M	**T5315**	1.2	◪ 200	0.40	1.9	–	–	–	■ 190	0.40	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	1.2	■ 175	0.40	1.9	–	–	–	◪ 165	0.40	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	1.2	■ 160	0.40	1.9	–	–	–	◪ 150	0.40	1.9	–	–	–	–	–	–	–	–	–
DNMG 150604E-M	**T5315**	0.4	◪ 200	0.20	1.9	–	–	–	■ 190	0.20	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.4	■ 190	0.20	1.9	–	–	–	◪ 180	0.20	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.4	■ 170	0.20	1.9	–	–	–	◪ 160	0.20	1.9	–	–	–	–	–	–	–	–	–
	T9335	0.4	■ 145	0.20	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150608E-M	**T5315**	0.8	◪ 205	0.30	1.9	–	–	–	■ 190	0.30	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9310	0.8	■ 205	0.30	1.9	–	–	–	◪ 190	0.30	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9315	0.8	■ 190	0.30	1.9	–	–	–	◪ 180	0.30	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.8	■ 170	0.30	1.9	–	–	–	◪ 160	0.30	1.9	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 145	0.30	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150612E-M	**T5315**	1.2	◪ 200	0.40	1.9	–	–	–	■ 190	0.40	1.9	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9310	1.2	■ 190	0.40	1.9	–	–	–	◪ 180	0.40	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9315	1.2	■ 175	0.40	1.9	–	–	–	◪ 165	0.40	1.9	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	1.2	■ 160	0.40	1.9	–	–	–	◪ 150	0.40	1.9	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 140	0.40	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
DNMG 110404E-NF	**T6310**	0.4	■ 155	0.15	0.8	■ 110	0.14	0.8	◪ 125	0.15	0.8	◪ 465	0.18	0.8	◪ 45	0.12	0.6	–	–	–
	T7325	0.4	◪ 170	0.18	0.8	■ 130	0.16	0.8	–	–	–	–	–	–	◪ 55	0.16	0.6	–	–	–
	T7335	0.4	◪ 165	0.18	0.8	■ 125	0.16	0.8	–	–	–	–	–	–	◪ 50	0.16	0.6	–	–	–
	T8330	0.4	■ 160	0.15	0.8	■ 95	0.14	0.8	◪ 150	0.15	0.8	◪ 480	0.18	0.8	◪ 40	0.12	0.6	–	–	–
	T8430	0.4	■ 190	0.15	0.8	■ 105	0.14	0.8	◪ 155	0.15	0.8	◪ 525	0.18	0.8	◪ 40	0.12	0.6	–	–	–
	T9315	0.4	■ 255	0.15	0.8	–	–	–	◪ 240	0.15	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 210	0.18	0.8	■ 125	0.16	0.8	◪ 195	0.18	0.8	–	–	–	◪ 45	0.16	0.6	–	–	–

FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.

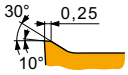
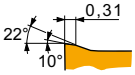
M geometry for finish to semi-rough machining, and continuous to interrupted cuts.

NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.

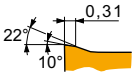
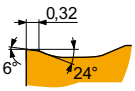
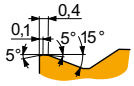
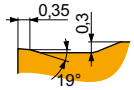
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
DNMG 110408E-NF	**T6310**	0.8	■	175	0.17	1.0	■	125	0.15	1.0	◪	140	0.17	1.0	◪	525	0.20	1.0	◪	50	0.14	0.8	–	–	–
	T7325	0.8	◪	200	0.18	1.0	■	155	0.16	1.0		–	–	–		–	–	–	◪	65	0.16	0.8	–	–	–
	T7335	0.8	◪	195	0.18	1.0	■	150	0.16	1.0		–	–	–		–	–	–	◪	60	0.16	0.8	–	–	–
	T8330	0.8	■	175	0.17	1.0	■	105	0.15	1.0	◪	165	0.17	1.0	◪	525	0.20	1.0	◪	40	0.14	0.8	–	–	–
	T8430	0.8	■	205	0.17	1.0	■	110	0.15	1.0	◪	170	0.17	1.0	◪	570	0.20	1.0	◪	45	0.14	0.8	–	–	–
	T9315	0.8	■	280	0.17	1.0		–	–	–	◪	265	0.17	1.0		–	–	–		–	–	–	–	–
	T9325	0.8	■	250	0.18	1.0	■	150	0.16	1.0	◪	235	0.18	1.0		–	–	–	◪	55	0.16	0.8	–	–	–
DNMG 150404E-NF	**T6310**	0.4	■	140	0.17	1.7	■	100	0.15	1.7	◪	110	0.17	1.7	◪	420	0.20	1.7	◪	40	0.15	1.4	–	–	–
	T7325	0.4	◪	160	0.18	1.7	■	120	0.16	1.7		–	–	–		–	–	–	◪	50	0.16	1.4	–	–	–
	T7335	0.4	◪	155	0.18	1.7	■	120	0.16	1.7		–	–	–		–	–	–	◪	50	0.16	1.4	–	–	–
	T8330	0.4	■	140	0.17	1.7	■	80	0.15	1.7	◪	130	0.17	1.7	◪	420	0.20	1.7	◪	35	0.15	1.4	–	–	–
	T8430	0.4	■	165	0.17	1.7	■	90	0.15	1.7	◪	135	0.17	1.7	◪	450	0.20	1.7	◪	35	0.15	1.4	–	–	–
	T9315	0.4	■	235	0.15	1.7		–	–	–	◪	220	0.15	1.7		–	–	–		–	–	–	–	–	–
	T9325	0.4	■	200	0.18	1.7	■	120	0.16	1.7	◪	190	0.18	1.7		–	–	–	◪	45	0.16	1.4	–	–	–
DNMG 150408E-NF	**T6310**	0.8	■	165	0.18	1.7	■	115	0.16	1.7	◪	130	0.18	1.7	◪	495	0.22	1.7	◪	45	0.16	1.4	–	–	–
	T7325	0.8	◪	190	0.18	1.7	■	145	0.16	1.7		–	–	–		–	–	–	◪	60	0.16	1.4	–	–	–
	T7335	0.8	◪	185	0.18	1.7	■	140	0.16	1.7		–	–	–		–	–	–	◪	60	0.16	1.4	–	–	–
	T8330	0.8	■	165	0.18	1.7	■	95	0.16	1.7	◪	155	0.18	1.7	◪	495	0.22	1.7	◪	40	0.16	1.4	–	–	–
	T8430	0.8	■	190	0.18	1.7	■	105	0.16	1.7	◪	155	0.18	1.7	◪	525	0.22	1.7	◪	40	0.16	1.4	–	–	–
	T9315	0.8	■	270	0.17	1.7		–	–	–	◪	255	0.17	1.7		–	–	–		–	–	–	–	–	–
	T9325	0.8	■	235	0.18	1.7	■	140	0.16	1.7	◪	220	0.18	1.7		–	–	–	◪	50	0.16	1.4	–	–	–
DNMG 150604E-NF	**HF7**	0.4		–	–	–	◪	80	0.14	1.9	◪	130	0.15	1.9	◪	420	0.18	1.9		–	–	–	–	–	–
	T6310	0.4	■	140	0.17	1.9	■	100	0.15	1.9	◪	110	0.17	1.9	◪	420	0.20	1.9	◪	40	0.15	1.5	–	–	–
	T7325	0.4	◪	155	0.18	1.9	■	120	0.16	1.9		–	–	–		–	–	–	◪	50	0.16	1.5	–	–	–
	T7335	0.4	◪	150	0.18	1.9	■	115	0.16	1.9		–	–	–		–	–	–	◪	45	0.16	1.5	–	–	–
	T8315	0.4	◪	145	0.17	1.9	■	85	0.15	1.9	◪	135	0.17	1.9	◪	435	0.20	1.9	◪	35	0.15	1.5	–	–	–
	T8330	0.4	■	140	0.17	1.9	■	80	0.15	1.9	◪	130	0.17	1.9	◪	420	0.20	1.9	◪	35	0.15	1.5	–	–	–
	T8430	0.4	■	165	0.17	1.9	■	90	0.15	1.9	◪	135	0.17	1.9	◪	450	0.20	1.9	◪	35	0.15	1.5	–	–	–
	T9315	0.4	■	235	0.15	1.9		–	–	–	◪	220	0.15	1.9		–	–	–		–	–	–	–	–	–
	T9325	0.4	■	195	0.18	1.9	■	115	0.16	1.9	◪	185	0.18	1.9		–	–	–	◪	40	0.16	1.5	–	–	–
DNMG 150608E-NF	**HF7**	0.8		–	–	–	◪	90	0.15	1.9	◪	145	0.17	1.9	◪	465	0.20	1.9		–	–	–	–	–	–
	T6310	0.8	■	165	0.18	1.9	■	115	0.16	1.9	◪	130	0.18	1.9	◪	495	0.22	1.9	◪	45	0.16	1.5	–	–	–
	T7325	0.8	◪	185	0.18	1.9	■	140	0.16	1.9		–	–	–		–	–	–	◪	60	0.16	1.5	–	–	–
	T7335	0.8	◪	180	0.18	1.9	■	140	0.16	1.9		–	–	–		–	–	–	◪	55	0.16	1.5	–	–	–
	T8315	0.8	◪	175	0.18	1.9	■	105	0.16	1.9	◪	165	0.18	1.9	◪	525	0.22	1.9	◪	40	0.16	1.5	–	–	–
	T8330	0.8	■	165	0.18	1.9	■	95	0.16	1.9	◪	155	0.18	1.9	◪	495	0.22	1.9	◪	40	0.16	1.5	–	–	–
	T8430	0.8	■	190	0.18	1.9	■	105	0.16	1.9	◪	155	0.18	1.9	◪	525	0.22	1.9	◪	40	0.16	1.5	–	–	–
	T9315	0.8	■	265	0.17	1.9		–	–	–	◪	250	0.17	1.9		–	–	–		–	–	–	–	–	–
	T9325	0.8	■	230	0.18	1.9	■	135	0.16	1.9	◪	215	0.18	1.9		–	–	–	◪	50	0.16	1.5	–	–	–
DNMG 150612E-NF	**T6310**	1.2	■	150	0.30	1.5	■	105	0.27	1.5	◪	120	0.30	1.5	◪	450	0.36	1.5	◪	45	0.21	1.2	–	–	–
	T8430	1.2	■	165	0.30	1.5	■	90	0.27	1.5	◪	135	0.30	1.5	◪	450	0.36	1.5	◪	35	0.21	1.2	–	–	–
	T9325	1.2	■	200	0.30	1.5	■	120	0.27	1.5	◪	190	0.30	1.5		–	–	–	◪	45	0.21	1.2	–	–	–
																				
NM geometry with highly positive design for fine-finish, medium to rough machining, and continuous cuts.																				
DNMG 110404E-NM	**T7325**	0.4	◪	175	0.20	0.8	■	135	0.18	0.8		–	–	–		–	–	–	■	55	0.20	0.6	–	–	–
	T7335	0.4	◪	165	0.20	0.8	■	125	0.18	0.8		–	–	–		–	–	–	■	50	0.20	0.6	–	–	–
	T8315	0.4	◪	160	0.20	0.8	■	95	0.18	0.8		–	–	–	◪	480	0.24	0.8	◪	40	0.20	0.6	–	–	–
	T8330	0.4	■	150	0.20	0.8	■	90	0.18	0.8		–	–	–	◪	450	0.24	0.8	◪	35	0.20	0.6	–	–	–
	T8430	0.4	■	175	0.20	0.8	■	95	0.18	0.8		–	–	–	◪	480	0.24	0.8	◪	35	0.20	0.6	–	–	–
	T9325	0.4	■	210	0.20	0.8	■	125	0.18	0.8		–	–	–		–	–	–	◪	45	0.20	0.6	–	–	–

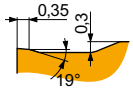
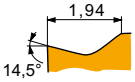
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
NM geometry with highly positive design for fine-finish, medium to rough machining, and continuous cuts.																				
DNMG 110408E-NM	**T7325**	0.8	◪ 190	0.25	0.8	■ 145	0.23	0.8	–	–	–	–	–	–	■ 60	0.20	0.6	–	–	–
	T7335	0.8	◪ 185	0.25	0.8	■ 140	0.23	0.8	–	–	–	–	–	–	■ 60	0.20	0.6	–	–	–
	T8315	0.8	◪ 180	0.25	0.8	■ 105	0.23	0.8	–	–	–	◪ 540	0.30	0.8	◪ 45	0.20	0.6	–	–	–
	T8330	0.8	■ 170	0.25	0.8	■ 100	0.23	0.8	–	–	–	◪ 510	0.30	0.8	◪ 40	0.20	0.6	–	–	–
	T8430	0.8	■ 190	0.25	0.8	■ 105	0.23	0.8	–	–	–	◪ 525	0.30	0.8	◪ 40	0.20	0.6	–	–	–
	T9325	0.8	■ 230	0.25	0.8	■ 135	0.23	0.8	–	–	–	–	–	–	◪ 50	0.20	0.6	–	–	–
DNMG 150408E-NM	**T7335**	0.8	◪ 170	0.25	1.9	■ 130	0.23	1.9	–	–	–	–	–	–	■ 55	0.20	1.5	–	–	–
	T8330	0.8	■ 155	0.25	1.9	■ 90	0.23	1.9	–	–	–	◪ 465	0.30	1.9	◪ 35	0.20	1.5	–	–	–
	T8430	0.8	■ 175	0.25	1.9	■ 95	0.23	1.9	–	–	–	◪ 480	0.30	1.9	◪ 35	0.20	1.5	–	–	–
	T9325	0.8	■ 210	0.25	1.9	■ 125	0.23	1.9	–	–	–	–	–	–	◪ 45	0.20	1.5	–	–	–
DNMG 150604E-NM	**T7325**	0.4	◪ 160	0.20	1.9	■ 120	0.18	1.9	–	–	–	–	–	–	■ 50	0.20	1.5	–	–	–
	T7335	0.4	◪ 150	0.20	1.9	■ 115	0.18	1.9	–	–	–	–	–	–	■ 45	0.20	1.5	–	–	–
	T8315	0.4	◪ 150	0.20	1.9	■ 90	0.18	1.9	–	–	–	◪ 450	0.24	1.9	◪ 35	0.20	1.5	–	–	–
	T8330	0.4	■ 135	0.20	1.9	■ 80	0.18	1.9	–	–	–	◪ 405	0.24	1.9	◪ 30	0.20	1.5	–	–	–
	T8430	0.4	■ 155	0.20	1.9	■ 85	0.18	1.9	–	–	–	◪ 435	0.24	1.9	◪ 30	0.20	1.5	–	–	–
	T9315	0.4	■ 220	0.20	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 195	0.20	1.9	■ 115	0.18	1.9	–	–	–	–	–	–	◪ 40	0.20	1.5	–	–	–
DNMG 150608E-NM	**T7325**	0.8	◪ 175	0.25	1.9	■ 135	0.23	1.9	–	–	–	–	–	–	■ 55	0.20	1.5	–	–	–
	T7335	0.8	◪ 170	0.25	1.9	■ 130	0.23	1.9	–	–	–	–	–	–	■ 55	0.20	1.5	–	–	–
	T8315	0.8	◪ 165	0.25	1.9	■ 95	0.23	1.9	–	–	–	◪ 495	0.30	1.9	◪ 40	0.20	1.5	–	–	–
	T8330	0.8	■ 155	0.25	1.9	■ 90	0.23	1.9	–	–	–	◪ 465	0.30	1.9	◪ 35	0.20	1.5	–	–	–
	T8430	0.8	■ 175	0.25	1.9	■ 95	0.23	1.9	–	–	–	◪ 480	0.30	1.9	◪ 35	0.20	1.5	–	–	–
	T9315	0.8	■ 235	0.25	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 210	0.25	1.9	■ 125	0.23	1.9	–	–	–	–	–	–	◪ 45	0.20	1.5	–	–	–
DNMG 150612E-NM	**T7325**	1.2	◪ 175	0.30	1.9	■ 135	0.27	1.9	–	–	–	–	–	–	■ 55	0.24	1.5	–	–	–
	T7335	1.2	◪ 170	0.30	1.9	■ 130	0.27	1.9	–	–	–	–	–	–	■ 55	0.24	1.5	–	–	–
	T8315	1.2	◪ 165	0.30	1.9	■ 95	0.27	1.9	–	–	–	◪ 495	0.36	1.9	◪ 40	0.24	1.5	–	–	–
	T9325	1.2	■ 205	0.30	1.9	■ 120	0.27	1.9	–	–	–	–	–	–	◪ 45	0.24	1.5	–	–	–
																				
NMR geometry with positive design for medium to rough machining, and continuous cuts.																				
DNMG 110404E-NMR	**T7325**	0.4	◪ 150	0.20	0.8	■ 115	0.18	0.8	–	–	–	–	–	–	■ 45	0.18	0.6	–	–	–
	T9315	0.4	■ 205	0.20	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 185	0.20	0.8	■ 110	0.18	0.8	–	–	–	–	–	–	◪ 40	0.18	0.6	–	–	–
DNMG 110408E-NMR	**T7325**	0.8	◪ 155	0.30	0.8	■ 120	0.27	0.8	–	–	–	–	–	–	■ 50	0.24	0.6	–	–	–
	T9315	0.8	■ 205	0.30	0.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 185	0.30	0.8	■ 110	0.27	0.8	–	–	–	–	–	–	◪ 40	0.24	0.6	–	–	–
DNMG 110412E-NMR	**T7325**	1.2	◪ 155	0.30	1.6	■ 120	0.27	1.6	–	–	–	–	–	–	■ 50	0.24	1.3	–	–	–
	T9315	1.2	■ 200	0.30	1.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 180	0.30	1.6	■ 105	0.27	1.6	–	–	–	–	–	–	◪ 40	0.24	1.3	–	–	–
DNMG 150404E-NMR	**T7325**	0.4	◪ 140	0.20	1.9	■ 105	0.18	1.9	–	–	–	–	–	–	■ 45	0.18	1.5	–	–	–
	T7335	0.4	◪ 130	0.20	1.9	■ 100	0.18	1.9	–	–	–	–	–	–	■ 40	0.18	1.5	–	–	–
	T9325	0.4	■ 170	0.20	1.9	■ 100	0.18	1.9	–	–	–	–	–	–	◪ 35	0.18	1.5	–	–	–
DNMG 150408E-NMR	**T7325**	0.8	◪ 145	0.30	1.9	■ 110	0.27	1.9	–	–	–	–	–	–	■ 45	0.24	1.5	–	–	–
	T7335	0.8	◪ 140	0.30	1.9	■ 105	0.27	1.9	–	–	–	–	–	–	■ 45	0.24	1.5	–	–	–
	T8330	0.8	■ 125	0.30	1.9	■ 75	0.27	1.9	–	–	–	–	–	–	◪ 30	0.24	1.5	–	–	–
	T8430	0.8	■ 135	0.30	1.9	■ 75	0.27	1.9	–	–	–	–	–	–	◪ 25	0.24	1.5	–	–	–
	T9315	0.8	■ 190	0.30	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 170	0.30	1.9	■ 100	0.27	1.9	–	–	–	–	–	–	◪ 35	0.24	1.5	–	–	–
DNMG 150604E-NMR	**T7325**	0.4	◪ 140	0.20	1.9	■ 105	0.18	1.9	–	–	–	–	–	–	■ 45	0.18	1.5	–	–	–
	T7335	0.4	◪ 130	0.20	1.9	■ 100	0.18	1.9	–	–	–	–	–	–	■ 40	0.18	1.5	–	–	–
	T8330	0.4	■ 120	0.20	1.9	■ 70	0.18	1.9	–	–	–	–	–	–	◪ 30	0.18	1.5	–	–	–
	T8430	0.4	■ 135	0.20	1.9	■ 75	0.18	1.9	–	–	–	–	–	–	◪ 25	0.18	1.5	–	–	–
	T9315	0.4	■ 190	0.20	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 170	0.20	1.9	■ 100	0.18	1.9	–	–	–	–	–	–	◪ 35	0.18	1.5	–	–	–

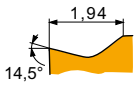
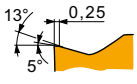
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
NMR geometry with positive design for medium to rough machining, and continuous cuts.																				
DNMG 150608E-NMR	**T6310**	0.8	■ 125	0.30	1.9	■ 90	0.27	1.9	–	–	–	–	–	–	■ 35	0.24	1.5	–	–	–
	T7325	0.8	◪ 145	0.30	1.9	■ 110	0.27	1.9	–	–	–	–	–	–	■ 45	0.24	1.5	–	–	–
	T7335	0.8	◪ 140	0.30	1.9	■ 105	0.27	1.9	–	–	–	–	–	–	■ 45	0.24	1.5	–	–	–
	T8330	0.8	■ 125	0.30	1.9	■ 75	0.27	1.9	–	–	–	–	–	–	◪ 30	0.24	1.5	–	–	–
	T8430	0.8	■ 135	0.30	1.9	■ 75	0.27	1.9	–	–	–	–	–	–	◪ 25	0.24	1.5	–	–	–
	T9315	0.8	■ 190	0.30	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 170	0.30	1.9	■ 100	0.27	1.9	–	–	–	–	–	–	◪ 35	0.24	1.5	–	–	–
DNMG 150612E-NMR	**T7325**	1.2	◪ 155	0.30	1.9	■ 120	0.27	1.9	–	–	–	–	–	–	■ 50	0.24	1.5	–	–	–
	T7335	1.2	◪ 145	0.30	1.9	■ 110	0.27	1.9	–	–	–	–	–	–	■ 45	0.24	1.5	–	–	–
	T8330	1.2	■ 135	0.30	1.9	■ 80	0.27	1.9	–	–	–	–	–	–	◪ 30	0.24	1.5	–	–	–
	T8430	1.2	■ 145	0.30	1.9	■ 80	0.27	1.9	–	–	–	–	–	–	◪ 30	0.24	1.5	–	–	–
	T9315	1.2	■ 200	0.30	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 180	0.30	1.9	■ 105	0.27	1.9	–	–	–	–	–	–	◪ 40	0.24	1.5	–	–	–
																				
NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																				
DNMG 150408-NRM	**T7325**	0.8	◪ 140	0.30	3.0	■ 105	0.27	3.0	–	–	–	–	–	–	■ 45	0.24	2.4	–	–	–
	T7335	0.8	◪ 130	0.30	3.0	■ 100	0.27	3.0	–	–	–	–	–	–	■ 40	0.24	2.4	–	–	–
	T9315	0.8	■ 180	0.30	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150604-NRM	**T7325**	0.4	◪ 130	0.20	3.0	■ 100	0.18	3.0	–	–	–	–	–	–	■ 40	0.20	2.4	–	–	–
	T7335	0.4	◪ 130	0.20	3.0	■ 100	0.18	3.0	–	–	–	–	–	–	■ 40	0.20	2.4	–	–	–
	T9315	0.4	■ 180	0.20	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150608-NRM	**T7325**	0.8	◪ 140	0.30	3.0	■ 105	0.27	3.0	–	–	–	–	–	–	■ 45	0.24	2.4	–	–	–
	T7335	0.8	◪ 130	0.30	3.0	■ 100	0.27	3.0	–	–	–	–	–	–	■ 40	0.24	2.4	–	–	–
	T9315	0.8	■ 180	0.30	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150612-NRM	**T7325**	1.2	◪ 145	0.30	3.0	■ 110	0.27	3.0	–	–	–	–	–	–	■ 45	0.27	2.4	–	–	–
	T7335	1.2	◪ 140	0.30	3.0	■ 105	0.27	3.0	–	–	–	–	–	–	■ 45	0.27	2.4	–	–	–
	T9315	1.2	■ 190	0.30	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
R geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
DNMG 150408E-R	**T5315**	0.8	◪ 175	0.40	3.0	–	–	–	■ 165	0.40	3.0	–	–	–	–	–	–	◪ 35	0.15	1.0
DNMG 150608E-R	**T5305**	0.8	◪ 200	0.40	3.0	–	–	–	■ 190	0.40	3.0	–	–	–	–	–	–	◪ 40	0.15	1.0
	T5315	0.8	◪ 175	0.40	3.0	–	–	–	■ 165	0.40	3.0	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9310	0.8	■ 170	0.40	3.0	–	–	–	◪ 160	0.40	3.0	–	–	–	–	–	–	◪ 30	0.15	1.0
	T9315	0.8	■ 155	0.40	3.0	–	–	–	◪ 145	0.40	3.0	–	–	–	–	–	–	◪ 30	0.15	1.0
	T9325	0.8	■ 140	0.40	3.0	–	–	–	◪ 130	0.40	3.0	–	–	–	–	–	–	–	–	–
DNMG 150612E-R	**T5305**	1.2	◪ 210	0.40	3.0	–	–	–	■ 195	0.40	3.0	–	–	–	–	–	–	◪ 40	0.15	1.0
	T5315	1.2	◪ 185	0.40	3.0	–	–	–	■ 175	0.40	3.0	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9310	1.2	■ 180	0.40	3.0	–	–	–	◪ 170	0.40	3.0	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9315	1.2	■ 165	0.40	3.0	–	–	–	◪ 155	0.40	3.0	–	–	–	–	–	–	◪ 30	0.15	1.0
	T9325	1.2	■ 150	0.40	3.0	–	–	–	◪ 140	0.40	3.0	–	–	–	–	–	–	–	–	–
DNMG 150616E-R	**T9325**	1.6	■ 155	0.40	3.0	–	–	–	◪ 145	0.40	3.0	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
DNMG 110408E-RM	**T9315**	0.8	■ 190	0.40	2.0	–	–	–	◪ 180	0.40	2.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 170	0.40	2.0	◪ 100	0.36	2.0	◪ 160	0.40	2.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 145	0.40	2.0	◪ 85	0.36	2.0	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 110412E-RM	**T9315**	1.2	■ 230	0.30	2.0	–	–	–	◪ 215	0.30	2.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 205	0.30	2.0	◪ 120	0.27	2.0	◪ 190	0.30	2.0	–	–	–	–	–	–	–	–	–

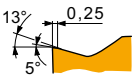
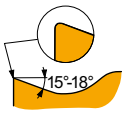
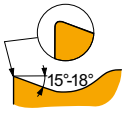
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
DNMG 150408E-RM	**T9315**	0.8	■ 180	0.40	3.0	–	–	–	◪ 170	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 165	0.40	3.0	◪ 95	0.36	3.0	◪ 155	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 140	0.40	3.0	◪ 80	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150412E-RM	**T7325**	1.2	◪ 155	0.40	3.0	◪ 120	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	1.2	■ 190	0.40	3.0	–	–	–	◪ 180	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 170	0.40	3.0	◪ 100	0.36	3.0	◪ 160	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 150	0.40	3.0	◪ 90	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150608E-RM	**T5305**	0.8	◪ 230	0.40	3.0	–	–	–	◪ 215	0.40	3.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	◪ 205	0.40	3.0	–	–	–	◪ 190	0.40	3.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	◪ 145	0.40	3.0	◪ 110	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	◪ 135	0.40	3.0	◪ 105	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	◪ 135	0.40	3.0	◪ 80	0.36	3.0	◪ 125	0.40	3.0	–	–	–	–	–	–	–	–	–
	T8330	0.8	■ 130	0.40	3.0	◪ 75	0.36	3.0	◪ 120	0.40	3.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	■ 135	0.40	3.0	◪ 75	0.36	3.0	◪ 110	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9310	0.8	■ 200	0.40	3.0	–	–	–	◪ 190	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	■ 180	0.40	3.0	–	–	–	◪ 170	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 165	0.40	3.0	◪ 95	0.36	3.0	◪ 155	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	■ 140	0.40	3.0	◪ 80	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150612E-RM	**T5305**	1.2	◪ 240	0.40	3.0	–	–	–	◪ 225	0.40	3.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	◪ 215	0.40	3.0	–	–	–	◪ 200	0.40	3.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	◪ 155	0.40	3.0	◪ 120	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	◪ 145	0.40	3.0	◪ 110	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	■ 135	0.40	3.0	◪ 80	0.36	3.0	◪ 125	0.40	3.0	–	–	–	–	–	–	–	–	–
	T8430	1.2	■ 140	0.40	3.0	◪ 75	0.36	3.0	◪ 115	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9310	1.2	■ 210	0.40	3.0	–	–	–	◪ 195	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	■ 190	0.40	3.0	–	–	–	◪ 180	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 170	0.40	3.0	◪ 100	0.36	3.0	◪ 160	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 150	0.40	3.0	◪ 90	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
DNMG 150616E-RM	**T5315**	1.6	◪ 225	0.40	3.0	–	–	–	◪ 210	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	■ 200	0.40	3.0	–	–	–	◪ 190	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	■ 180	0.40	3.0	◪ 105	0.36	3.0	◪ 170	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	■ 155	0.40	3.0	◪ 90	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																	
DNMG 110404E-SF	**T6310**	0.4	■ 150	0.15	0.8	■ 105	0.14	0.8	■ 120	0.15	0.8	◪ 450	0.18	0.8	■ 45	0.12	0.6	■ 30	0.15	1.0
	T7325	0.4	◪ 165	0.17	0.8	■ 125	0.15	0.8	–	–	–	–	–	–	■ 50	0.15	0.6	–	–	–
	T8315	0.4	◪ 160	0.15	0.8	■ 95	0.14	0.8	■ 150	0.15	0.8	◪ 480	0.18	0.8	◪ 40	0.12	0.6	■ 30	0.15	1.0
	T8430	0.4	■ 180	0.15	0.8	■ 95	0.14	0.8	◪ 145	0.15	0.8	◪ 495	0.18	0.8	◪ 35	0.12	0.6	◪ 30	0.15	1.0
	T9315	0.4	■ 245	0.15	0.8	–	–	–	◪ 230	0.15	0.8	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	0.4	■ 210	0.17	0.8	■ 125	0.15	0.8	◪ 195	0.17	0.8	–	–	–	◪ 45	0.15	0.6	–	–	–
DNMG 110408E-SF	**T6310**	0.8	■ 175	0.17	0.8	■ 125	0.15	0.8	■ 140	0.17	0.8	◪ 525	0.20	0.8	■ 50	0.14	0.6	■ 35	0.15	1.0
	T7325	0.8	◪ 195	0.17	0.8	■ 150	0.15	0.8	–	–	–	–	–	–	■ 60	0.15	0.6	–	–	–
	T7335	0.8	◪ 195	0.17	0.8	■ 150	0.15	0.8	–	–	–	–	–	–	■ 60	0.15	0.6	–	–	–
	T8315	0.8	◪ 180	0.17	0.8	■ 105	0.15	0.8	■ 170	0.17	0.8	◪ 540	0.20	0.8	◪ 45	0.14	0.6	■ 35	0.15	1.0
	T8430	0.8	■ 200	0.17	0.8	■ 110	0.15	0.8	◪ 165	0.17	0.8	◪ 555	0.20	0.8	◪ 40	0.14	0.6	◪ 35	0.15	1.0
	T9325	0.8	■ 250	0.17	0.8	■ 150	0.15	0.8	◪ 235	0.17	0.8	–	–	–	◪ 55	0.15	0.6	–	–	–
DNMG 150404E-SF	**T6310**	0.4	■ 140	0.15	1.5	■ 100	0.14	1.5	■ 110	0.15	1.5	◪ 420	0.18	1.5	■ 40	0.12	1.2	■ 25	0.15	1.0
	T8315	0.4	◪ 150	0.15	1.5	■ 90	0.14	1.5	■ 140	0.15	1.5	◪ 450	0.18	1.5	◪ 35	0.12	1.2	■ 30	0.15	1.0
	T8430	0.4	■ 165	0.15	1.5	■ 90	0.14	1.5	◪ 135	0.15	1.5	◪ 450	0.18	1.5	◪ 35	0.12	1.2	◪ 25	0.15	1.0
	T9325	0.4	■ 195	0.17	1.5	■ 115	0.15	1.5	◪ 185	0.17	1.5	–	–	–	◪ 40	0.15	1.2	–	–	–

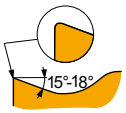
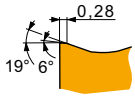
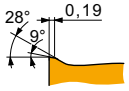
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																	
DNMG 150408E-SF	**T6310**	0.8	■	160	0.17	1.5	■	115	0.15	1.5	■	125	0.17	1.5	◪	480	0.20	1.5	■	45	0.14	1.2	■	30	0.15	1.0
	T8315	0.8	◪	170	0.17	1.5	■	100	0.15	1.5	■	160	0.17	1.5	◪	510	0.20	1.5	◪	40	0.14	1.2	■	30	0.15	1.0
	T8330	0.8	■	160	0.17	1.5	■	95	0.15	1.5	■	150	0.17	1.5	◪	480	0.20	1.5	◪	40	0.14	1.2	◪	30	0.15	1.0
	T8430	0.8	■	190	0.17	1.5	■	105	0.15	1.5	◪	155	0.17	1.5	◪	525	0.20	1.5	◪	40	0.14	1.2	◪	30	0.15	1.0
	T9325	0.8	■	235	0.17	1.5	■	140	0.15	1.5	◪	220	0.17	1.5		–	–	–	◪	50	0.15	1.2		–	–	–
DNMG 150604E-SF	**H07**	0.4		–	–	–	◪	70	0.14	1.5	■	115	0.15	1.5	◪	360	0.18	1.5	■	35	0.12	1.2		–	–	–
	T6310	0.4	■	140	0.15	1.5	■	100	0.14	1.5	■	110	0.15	1.5	◪	420	0.18	1.5	■	40	0.12	1.2	■	25	0.15	1.0
	T7325	0.4	◪	155	0.17	1.5	■	120	0.15	1.5		–	–	–		–	–	–	■	50	0.15	1.2		–	–	–
	T7335	0.4	◪	150	0.17	1.5	■	115	0.15	1.5		–	–	–		–	–	–	■	45	0.15	1.2		–	–	–
	T8315	0.4	◪	150	0.15	1.5	■	90	0.14	1.5	■	140	0.15	1.5	◪	450	0.18	1.5	◪	35	0.12	1.2	■	30	0.15	1.0
	T8330	0.4	■	140	0.15	1.5	■	80	0.14	1.5	■	130	0.15	1.5	◪	420	0.18	1.5	◪	35	0.12	1.2	◪	25	0.15	1.0
	T8430	0.4	■	165	0.15	1.5	■	90	0.14	1.5	◪	135	0.15	1.5	◪	450	0.18	1.5	◪	35	0.12	1.2	◪	25	0.15	1.0
	T9315	0.4	■	230	0.15	1.5		–	–	–	◪	215	0.15	1.5		–	–	–		–	–	–	◪	45	0.15	1.0
	T9325	0.4	■	195	0.17	1.5	■	115	0.15	1.5	◪	185	0.17	1.5		–	–	–	◪	40	0.15	1.2		–	–	–
DNMG 150608E-SF	**H07**	0.8		–	–	–	◪	80	0.15	1.5	■	130	0.17	1.5	◪	415	0.20	1.5	■	40	0.14	1.2		–	–	–
	T6310	0.8	■	160	0.17	1.5	■	115	0.15	1.5	■	125	0.17	1.5	◪	480	0.20	1.5	■	45	0.14	1.2	■	30	0.15	1.0
	T7325	0.8	◪	185	0.17	1.5	■	140	0.15	1.5		–	–	–		–	–	–	■	60	0.15	1.2		–	–	–
	T7335	0.8	◪	180	0.17	1.5	■	140	0.15	1.5		–	–	–		–	–	–	■	55	0.15	1.2		–	–	–
	T8315	0.8	◪	170	0.17	1.5	■	100	0.15	1.5	■	160	0.17	1.5	◪	510	0.20	1.5	◪	40	0.14	1.2	■	30	0.15	1.0
	T8330	0.8	■	160	0.17	1.5	■	95	0.15	1.5	■	150	0.17	1.5	◪	480	0.20	1.5	◪	40	0.14	1.2	◪	30	0.15	1.0
	T8430	0.8	■	190	0.17	1.5	■	105	0.15	1.5	◪	155	0.17	1.5	◪	525	0.20	1.5	◪	40	0.14	1.2	◪	30	0.15	1.0
	T9315	0.8	■	255	0.17	1.5		–	–	–	◪	240	0.17	1.5		–	–	–		–	–	–	◪	50	0.15	1.0
	T9325	0.8	■	235	0.17	1.5	■	140	0.15	1.5	◪	220	0.17	1.5		–	–	–	◪	50	0.15	1.2		–	–	–
DNMG 150612E-SF	**T6310**	1.2	■	145	0.30	1.5	■	100	0.27	1.5	■	115	0.30	1.5	◪	435	0.36	1.5	■	40	0.21	1.2	■	25	0.15	1.0
	T7325	1.2	◪	165	0.30	1.5	■	125	0.27	1.5		–	–	–		–	–	–	■	50	0.21	1.2		–	–	–
	T9315	1.2	■	210	0.30	1.5		–	–	–	◪	195	0.30	1.5		–	–	–		–	–	–	◪	40	0.15	1.0
																				
			SM geometry with positive design for medium machining, and continuous to interrupted cuts.																	
DNMG 110404E-SM	**T6310**	0.4	■	140	0.20	0.8	■	100	0.18	0.8	■	110	0.20	0.8	◪	420	0.24	0.8	■	40	0.20	0.6	◪	25	0.15	1.0
	T7325	0.4	◪	160	0.20	0.8	■	120	0.18	0.8		–	–	–		–	–	–	■	50	0.20	0.6		–	–	–
	T7335	0.4	◪	150	0.20	0.8	■	115	0.18	0.8		–	–	–		–	–	–	■	45	0.20	0.6		–	–	–
	T8430	0.4	■	155	0.20	0.8	■	85	0.18	0.8	◪	130	0.20	0.8	◪	435	0.24	0.8	◪	30	0.20	0.6	◪	25	0.15	1.0
	T9325	0.4	■	190	0.20	0.8	■	110	0.18	0.8	◪	180	0.20	0.8		–	–	–	◪	40	0.20	0.6		–	–	–
DNMG 110408E-SM	**T6310**	0.8	■	150	0.25	1.2	■	105	0.23	1.2	■	120	0.25	1.2	◪	450	0.30	1.2	■	45	0.20	1.0	◪	30	0.15	1.0
	T7325	0.8	◪	170	0.25	1.2	■	130	0.23	1.2		–	–	–		–	–	–	■	55	0.20	1.0		–	–	–
	T7335	0.8	◪	160	0.25	1.2	■	120	0.23	1.2		–	–	–		–	–	–	■	50	0.20	1.0		–	–	–
	T8330	0.8	■	150	0.25	1.2	■	90	0.23	1.2	■	140	0.25	1.2	◪	450	0.30	1.2	◪	35	0.20	1.0	◪	30	0.15	1.0
	T8430	0.8	■	170	0.25	1.2	■	90	0.23	1.2	◪	135	0.25	1.2	◪	465	0.30	1.2	◪	35	0.20	1.0	◪	25	0.15	1.0
	T9325	0.8	■	200	0.25	1.2	■	120	0.23	1.2	◪	190	0.25	1.2		–	–	–	◪	45	0.20	1.0		–	–	–
DNMG 150404E-SM	**T6310**	0.4	■	125	0.22	1.7	■	90	0.20	1.7	■	100	0.22	1.7	◪	375	0.26	1.7	■	35	0.20	1.4	◪	25	0.15	1.0
DNMG 150408E-SM	**T6310**	0.8	■	140	0.25	2.1	■	100	0.23	2.1	■	110	0.25	2.1	◪	420	0.30	2.1	■	40	0.20	1.7	◪	25	0.15	1.0
DNMG 150604E-SM	**T6310**	0.4	■	125	0.22	1.7	■	90	0.20	1.7	■	100	0.22	1.7	◪	375	0.26	1.7	■	35	0.20	1.4	◪	25	0.15	1.0
	T7325	0.4	◪	140	0.22	1.7	■	105	0.20	1.7		–	–	–		–	–	–	■	45	0.20	1.4		–	–	–
	T7335	0.4	◪	140	0.22	1.7	■	105	0.20	1.7		–	–	–		–	–	–	■	45	0.20	1.4		–	–	–
	T8330	0.4	■	125	0.22	1.7	■	75	0.20	1.7	■	115	0.22	1.7	◪	375	0.26	1.7	◪	30	0.20	1.4	◪	25	0.15	1.0
	T8430	0.4	■	140	0.22	1.7	■	75	0.20	1.7	◪	115	0.22	1.7	◪	390	0.26	1.7	◪	30	0.20	1.4	◪	20	0.15	1.0
	T9315	0.4	■	200	0.20	1.7		–	–	–	◪	190	0.20	1.7		–	–	–		–	–	–	◪	40	0.15	1.0
	T9325	0.4	■	170	0.22	1.7	■	100	0.20	1.7	◪	160	0.22	1.7		–	–	–	◪	35	0.20	1.4		–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
SM geometry with positive design for medium machining, and continuous to interrupted cuts.																				
DNMG 150608E-SM	**T6310**	0.8	140	0.25	1.7	100	0.23	1.7	110	0.25	1.7	420	0.30	1.7	40	0.20	1.4	25	0.15	1.0
	T7325	0.8	160	0.25	1.7	120	0.23	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T7335	0.8	155	0.25	1.7	120	0.23	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T8330	0.8	140	0.25	1.7	80	0.23	1.7	130	0.25	1.7	420	0.30	1.7	35	0.20	1.4	25	0.15	1.0
	T8430	0.8	155	0.25	1.7	85	0.23	1.7	130	0.25	1.7	435	0.30	1.7	30	0.20	1.4	25	0.15	1.0
	T9315	0.8	215	0.25	1.7	–	–	–	200	0.25	1.7	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	195	0.25	1.7	115	0.23	1.7	185	0.25	1.7	–	–	–	40	0.20	1.4	–	–	–
DNMG 150612E-SM	**T6310**	1.2	145	0.30	1.7	100	0.27	1.7	115	0.30	1.7	435	0.36	1.7	40	0.24	1.4	25	0.15	1.0
	T7325	1.2	160	0.30	1.7	120	0.27	1.7	–	–	–	–	–	–	50	0.24	1.4	–	–	–
	T7335	1.2	155	0.30	1.7	120	0.27	1.7	–	–	–	–	–	–	50	0.24	1.4	–	–	–
	T8330	1.2	145	0.30	1.7	85	0.27	1.7	135	0.30	1.7	435	0.36	1.7	35	0.24	1.4	25	0.15	1.0
	T8430	1.2	155	0.30	1.7	85	0.27	1.7	130	0.30	1.7	435	0.36	1.7	30	0.24	1.4	25	0.15	1.0
	T9315	1.2	210	0.30	1.7	–	–	–	195	0.30	1.7	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.2	190	0.30	1.7	110	0.27	1.7	180	0.30	1.7	–	–	–	40	0.24	1.4	–	–	–
																				
ER-SI geometry with positive right-handed design for fine-finish to semi-rough machining, and continuous cuts.																				
DNMG 110404ER-SI	**T7325**	0.4	185	0.20	1.0	140	0.18	1.0	–	–	–	–	–	–	60	0.18	0.8	–	–	–
	T7335	0.4	180	0.20	1.0	140	0.18	1.0	–	–	–	–	–	–	55	0.18	0.8	–	–	–
	T8330	0.4	160	0.20	1.0	95	0.18	1.0	–	–	–	480	0.24	1.0	40	0.18	0.8	–	–	–
	T8430	0.4	185	0.20	1.0	100	0.18	1.0	–	–	–	510	0.24	1.0	40	0.18	0.8	–	–	–
	T9325	0.4	225	0.20	1.0	135	0.18	1.0	–	–	–	–	–	–	50	0.18	0.8	–	–	–
DNMG 110408ER-SI	**T7335**	0.8	175	0.35	1.0	135	0.32	1.0	–	–	–	–	–	–	55	0.25	0.8	–	–	–
	T8330	0.8	165	0.35	1.0	95	0.32	1.0	–	–	–	495	0.42	1.0	40	0.25	0.8	–	–	–
	T8430	0.8	180	0.35	1.0	95	0.32	1.0	–	–	–	495	0.42	1.0	35	0.25	0.8	–	–	–
	T9325	0.8	210	0.35	1.0	125	0.32	1.0	–	–	–	–	–	–	45	0.25	0.8	–	–	–
DNMG 150404ER-SI	**T8330**	0.4	155	0.20	1.5	90	0.18	1.5	–	–	–	465	0.24	1.5	35	0.18	1.2	–	–	–
	T8430	0.4	175	0.20	1.5	95	0.18	1.5	–	–	–	480	0.24	1.5	35	0.18	1.2	–	–	–
	T9325	0.4	220	0.20	1.5	130	0.18	1.5	–	–	–	–	–	–	45	0.18	1.2	–	–	–
DNMG 150408ER-SI	**T8330**	0.8	160	0.35	1.5	95	0.32	1.5	–	–	–	480	0.42	1.5	40	0.25	1.2	–	–	–
	T8430	0.8	170	0.35	1.5	90	0.32	1.5	–	–	–	465	0.42	1.5	35	0.25	1.2	–	–	–
	T9325	0.8	200	0.35	1.5	120	0.32	1.5	–	–	–	–	–	–	45	0.25	1.2	–	–	–
DNMG 150604ER-SI	**T7325**	0.4	180	0.20	1.5	140	0.18	1.5	–	–	–	–	–	–	55	0.18	1.2	–	–	–
	T7335	0.4	170	0.20	1.5	130	0.18	1.5	–	–	–	–	–	–	55	0.18	1.2	–	–	–
	T8315	0.4	165	0.20	1.5	95	0.18	1.5	–	–	–	495	0.24	1.5	40	0.18	1.2	–	–	–
	T8330	0.4	155	0.20	1.5	90	0.18	1.5	–	–	–	465	0.24	1.5	35	0.18	1.2	–	–	–
	T8430	0.4	175	0.20	1.5	95	0.18	1.5	–	–	–	480	0.24	1.5	35	0.18	1.2	–	–	–
	T9325	0.4	220	0.20	1.5	130	0.18	1.5	–	–	–	–	–	–	45	0.18	1.2	–	–	–
	T9335	0.4	185	0.20	1.5	110	0.18	1.5	–	–	–	–	–	–	40	0.18	1.2	–	–	–
DNMG 150608ER-SI	**T7325**	0.8	180	0.35	1.5	140	0.32	1.5	–	–	–	–	–	–	55	0.25	1.2	–	–	–
	T7335	0.8	170	0.35	1.5	130	0.32	1.5	–	–	–	–	–	–	55	0.25	1.2	–	–	–
	T8315	0.8	165	0.35	1.5	95	0.32	1.5	–	–	–	495	0.42	1.5	40	0.25	1.2	–	–	–
	T8330	0.8	160	0.35	1.5	95	0.32	1.5	–	–	–	480	0.42	1.5	40	0.25	1.2	–	–	–
	T8430	0.8	170	0.35	1.5	90	0.32	1.5	–	–	–	465	0.42	1.5	35	0.25	1.2	–	–	–
	T9325	0.8	200	0.35	1.5	120	0.32	1.5	–	–	–	–	–	–	45	0.25	1.2	–	–	–
	T9335	0.8	180	0.35	1.5	105	0.32	1.5	–	–	–	–	–	–	40	0.25	1.2	–	–	–
																				
EL-SI geometry with positive left-handed design, for fine-finish to semi-rough machining, and continuous cuts.																				
DNMG 110404EL-SI	**T7335**	0.4	180	0.20	1.0	140	0.18	1.0	–	–	–	–	–	–	55	0.18	0.8	–	–	–
	T8330	0.4	160	0.20	1.0	95	0.18	1.0	–	–	–	480	0.24	1.0	40	0.18	0.8	–	–	–
	T8430	0.4	185	0.20	1.0	100	0.18	1.0	–	–	–	510	0.24	1.0	40	0.18	0.8	–	–	–
	T9325	0.4	225	0.20	1.0	135	0.18	1.0	–	–	–	–	–	–	50	0.18	0.8	–	–	–

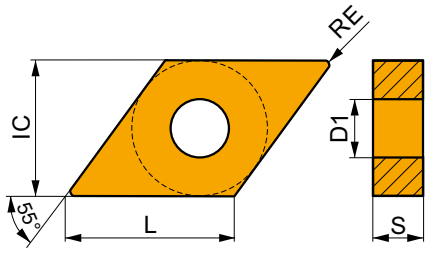
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			E																	
EL-SI geometry with positive left-handed design, for fine-finish to semi-rough machining, and continuous cuts.																				
DNMG 110408EL-SI	**T7325**	0.8	◪	185	0.35	1.0	■	140	0.32	1.0	–	–	–	–	–	–	◪	60	0.25	0.8	–	–	–
	T8330	0.8	■	165	0.35	1.0	■	95	0.32	1.0	–	–	–	◪	495	0.42	1.0	◪	40	0.25	0.8	–	–	–
	T8430	0.8	■	180	0.35	1.0	■	95	0.32	1.0	–	–	–	◪	495	0.42	1.0	◪	35	0.25	0.8	–	–	–
	T9325	0.8	■	210	0.35	1.0	■	125	0.32	1.0	–	–	–	–	–	–	–	◪	45	0.25	0.8	–	–	–
DNMG 150404EL-SI	**T8330**	0.4	■	155	0.20	1.5	■	90	0.18	1.5	–	–	–	◪	465	0.24	1.5	◪	35	0.18	1.2	–	–	–
	T8430	0.4	■	175	0.20	1.5	■	95	0.18	1.5	–	–	–	◪	480	0.24	1.5	◪	35	0.18	1.2	–	–	–
	T9325	0.4	■	220	0.20	1.5	■	130	0.18	1.5	–	–	–	–	–	–	–	◪	45	0.18	1.2	–	–	–
DNMG 150408EL-SI	**T7335**	0.8	◪	170	0.35	1.5	■	130	0.32	1.5	–	–	–	–	–	–	–	◪	55	0.25	1.2	–	–	–
	T8330	0.8	■	160	0.35	1.5	■	95	0.32	1.5	–	–	–	◪	480	0.42	1.5	◪	40	0.25	1.2	–	–	–
	T8430	0.8	■	170	0.35	1.5	■	90	0.32	1.5	–	–	–	◪	465	0.42	1.5	◪	35	0.25	1.2	–	–	–
	T9325	0.8	■	200	0.35	1.5	■	120	0.32	1.5	–	–	–	–	–	–	–	◪	45	0.25	1.2	–	–	–
DNMG 150604EL-SI	**T7325**	0.4	◪	180	0.20	1.5	■	140	0.18	1.5	–	–	–	–	–	–	–	◪	55	0.18	1.2	–	–	–
	T7335	0.4	◪	170	0.20	1.5	■	130	0.18	1.5	–	–	–	–	–	–	–	◪	55	0.18	1.2	–	–	–
	T8315	0.4	◪	165	0.20	1.5	■	95	0.18	1.5	–	–	–	◪	495	0.24	1.5	◪	40	0.18	1.2	–	–	–
	T8330	0.4	■	155	0.20	1.5	■	90	0.18	1.5	–	–	–	◪	465	0.24	1.5	◪	35	0.18	1.2	–	–	–
	T8430	0.4	■	175	0.20	1.5	■	95	0.18	1.5	–	–	–	◪	480	0.24	1.5	◪	35	0.18	1.2	–	–	–
	T9325	0.4	■	220	0.20	1.5	■	130	0.18	1.5	–	–	–	–	–	–	–	◪	45	0.18	1.2	–	–	–
	T9335	0.4	■	185	0.20	1.5	■	110	0.18	1.5	–	–	–	–	–	–	–	◪	40	0.18	1.2	–	–	–
DNMG 150608EL-SI	**T7325**	0.8	◪	180	0.35	1.5	■	140	0.32	1.5	–	–	–	–	–	–	–	◪	55	0.25	1.2	–	–	–
	T7335	0.8	◪	170	0.35	1.5	■	130	0.32	1.5	–	–	–	–	–	–	–	◪	55	0.25	1.2	–	–	–
	T8315	0.8	◪	165	0.35	1.5	■	95	0.32	1.5	–	–	–	◪	495	0.42	1.5	◪	40	0.25	1.2	–	–	–
	T8330	0.8	■	160	0.35	1.5	■	95	0.32	1.5	–	–	–	◪	480	0.42	1.5	◪	40	0.25	1.2	–	–	–
	T8430	0.8	■	170	0.35	1.5	■	90	0.32	1.5	–	–	–	◪	465	0.42	1.5	◪	35	0.25	1.2	–	–	–
	T9325	0.8	■	200	0.35	1.5	■	120	0.32	1.5	–	–	–	–	–	–	–	◪	45	0.25	1.2	–	–	–
	T9335	0.8	■	180	0.35	1.5	■	105	0.32	1.5	–	–	–	–	–	–	–	◪	40	0.25	1.2	–	–	–
																				
			W	S																
W-MR wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																				
DNMG 150608W-MR	**T5315**	0.8	◪	190	0.40	1.5		–	–	–	◪	180	0.40	1.5	–	–	–		–	–	–	–	–	–
	T9315	0.8	■	170	0.40	1.5		–	–	–	◪	160	0.40	1.5	–	–	–		–	–	–	–	–	–
	T9325	0.8	■	155	0.40	1.5	◪	90	0.36	1.5	◪	145	0.40	1.5	–	–	–		–	–	–	–	–	–
DNMG 150612W-MR	**T9310**	1.2	■	175	0.50	1.5		–	–	–	◪	165	0.50	1.5	–	–	–		–	–	–	–	–	–
	T9315	1.2	■	160	0.50	1.5		–	–	–	◪	150	0.50	1.5	–	–	–		–	–	–	–	–	–
	T9325	1.2	■	145	0.50	1.5	◪	85	0.45	1.5	◪	135	0.50	1.5	–	–	–		–	–	–	–	–	–
																				
			W	S																
W-NM wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																				
DNMX 150604W-NM	**T7325**	0.4	◪	145	0.30	1.5	◪	110	0.27	1.5	–	–	–	–	–	–	–	◪	45	0.21	1.2	–	–	–
	T7335	0.4	◪	135	0.30	1.5	◪	105	0.27	1.5	–	–	–	–	–	–	–	◪	40	0.21	1.2	–	–	–
	T9315	0.4	■	185	0.30	1.5		–	–	–	◪	175	0.30	1.5	–	–	–		–	–	–	–	–	–
DNMX 150608W-NM	**T7325**	0.8	◪	155	0.40	1.5	◪	120	0.36	1.5	–	–	–	–	–	–	–	◪	50	0.28	1.2	–	–	–
	T7335	0.8	◪	145	0.40	1.5	◪	110	0.36	1.5	–	–	–	–	–	–	–	◪	45	0.28	1.2	–	–	–
	T9315	0.8	■	195	0.40	1.5		–	–	–	◪	185	0.40	1.5	–	–	–		–	–	–	–	–	–
	T9325	0.8	■	175	0.40	1.5	◪	105	0.36	1.5	◪	165	0.40	1.5	–	–	–	◪	35	0.28	1.2	–	–	–

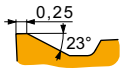
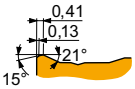
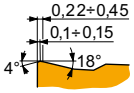
DNMM

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1504	12.700	5.16	15.50	4.76
1506	12.700	5.16	15.50	6.35



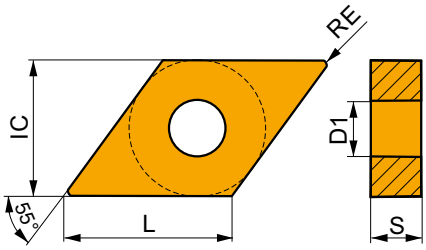
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			NR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
DNMM 150408E-NR	**T9325**	0.8	■ 155	0.40	3.0	■ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	◪ 30	0.28	2.4	–	–	–
DNMM 150608E-NR	**T7325**	0.8	◪ 140	0.40	3.0	■ 105	0.36	3.0	–	–	–	–	–	–	◪ 45	0.28	2.4	–	–	–
	T8330	0.8	■ 125	0.40	3.0	■ 75	0.36	3.0	◪ 115	0.40	3.0	–	–	–	◪ 30	0.28	2.4	–	–	–
	T8430	0.8	■ 130	0.40	3.0	■ 70	0.36	3.0	◪ 105	0.40	3.0	–	–	–	◪ 25	0.28	2.4	–	–	–
	T9325	0.8	■ 155	0.40	3.0	■ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	◪ 30	0.28	2.4	–	–	–
																				
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
DNMM 150608E-NR2	**T9325**	0.8	■ 155	0.40	3.0	■ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	◪ 30	0.32	2.4	–	–	–
																				
			OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
DNMM 150608E-OR	**T9325**	0.8	■ 155	0.40	3.0	◪ 90	0.36	3.0	◪ 145	0.40	3.0	–	–	–	◪ 30	0.28	2.4	–	–	–
DNMM 150612E-OR	**T9315**	1.2	■ 180	0.40	3.0	–	–	–	◪ 170	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 165	0.40	3.0	◪ 95	0.36	3.0	◪ 155	0.40	3.0	–	–	–	◪ 35	0.32	2.4	–	–	–
	T9335	1.2	■ 145	0.40	3.0	◪ 85	0.36	3.0	–	–	–	–	–	–	◪ 30	0.32	2.4	–	–	–
DNMM 150616E-OR	**T9325**	1.6	■ 165	0.45	3.0	◪ 95	0.41	3.0	◪ 155	0.45	3.0	–	–	–	◪ 35	0.41	2.4	–	–	–

DNGA CER

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1504	12.700	5.16	15.50	4.76



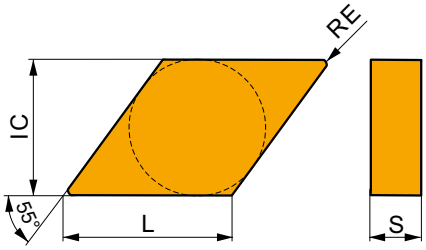
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC S																	
			For machining with high speeds and continuous cuts.																	
DNGA 150408 S02020	**TC100**	0.8	–	–	–	–	–	–	450	0.20	1.5	–	–	–	–	–	–	–	–	–
			HSC T																	
			For machining with high speeds and continuous cuts.																	
DNGA 150404 T01020	**TC100**	0.4	–	–	–	–	–	–	475	0.10	1.5	–	–	–	–	–	–	–	–	–
DNGA 150408 T00520	**TC100**	0.8	–	–	–	–	–	–	450	0.20	1.5	–	–	–	–	–	–	–	–	–

DNGN CER

PRAMET

	IC [mm]	L [mm]	S [mm]
1504	12.700	15.50	4.76

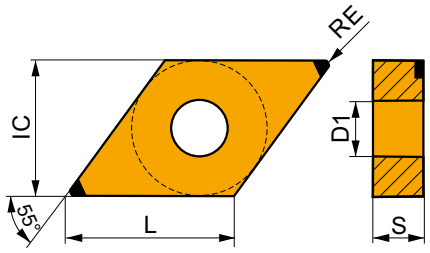


Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

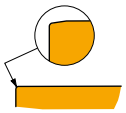
Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC T																	
			For machining with high speeds and continuous cuts.																	
DNGN 150408 T01020	**TC100**	0.8	–	–	–	–	–	–	450	0.20	1.5	–	–	–	–	–	–	–	–	–

DNGA CBN

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1506	12.700	5.16	15.50	6.35



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC		S															
			For finish machining and continuous cuts.																	
DNGA 150608S01020B	**TB310**	0.8	–	–	–	–	–	–	420	0.15	0.6	–	–	–	110	0.11	0.5	85	0.15	1.0

DDJN(RL) EXT

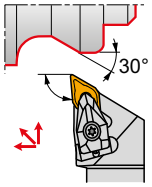
P M K N S H

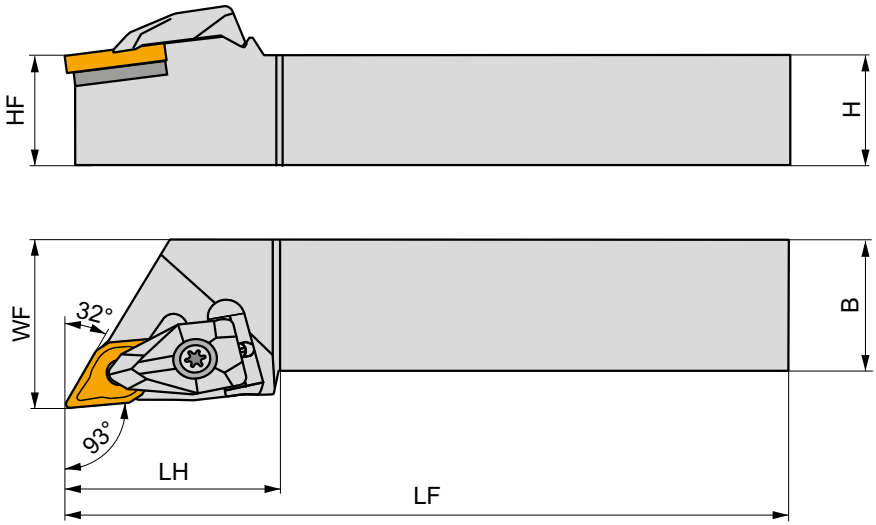
PRAMET

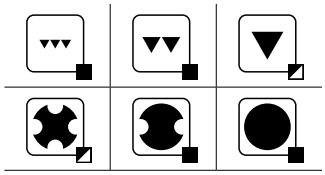
D

External Double Clamp Turning Holder with 93° Cutting Angle for DN.. Insert

External Right/Left hand double clamp tool holder with 93° cutting angle. Suited for longitudinal turning with shoulder, copying, chamfering and facing with negative DN.. 11 or 15 size inserts. Available with shank size 20x20 up to 32x32 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg			
R	DDJNR 2020 K 11	20	20	20	25	125	30.2	-7	-6	0.45	GI046	DD11	–
	DDJNR 2525 M 11	25	25	25	32	150	30.2	-7	-6	0.77	GI046	DD11	–
	DDJNR 2020 K 15	20	20	20	25	125	39.4	-7	-6	0.42	GI044	DD154	AT002
	DDJNR 2525 M 15	25	25	25	32	150	39.4	-7	-6	0.74	GI044	DD154	AT002
	DDJNR 3225 P 15	32	25	32	32	170	39.4	-7	-6	1.12	GI044	DD154	AT002
	DDJNR 3232 P 15	32	32	32	40	170	39.4	-7	-6	1.33	GI044	DD154	AT002
L	DDJNL 2020 K 11	20	20	20	25	125	30.2	-7	-6	0.45	GI046	DD11	–
	DDJNL 2525 M 11	25	25	25	32	150	30.2	-7	-6	0.77	GI046	DD11	–
	DDJNL 2020 K 15	20	20	20	25	125	39.4	-7	-6	0.42	GI044	DD154	AT002
	DDJNL 2525 M 15	25	25	25	32	150	39.4	-7	-6	0.74	GI044	DD154	AT002
	DDJNL 3225 P 15	32	25	32	32	170	39.4	-7	-6	1.01	GI044	DD154	AT002
	DDJNL 3232 P 15	32	32	32	40	170	39.4	-7	-6	1.34	GI044	DD154	AT002

GI044	DN.. 1506..
GI046	DN.. 1104..

		Nm			
DD11	DCS 09	1.7	DDS 267-01	US 2004-T09P	FLAG T09P
DD154	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5

AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–

PDJN(RL) EXT

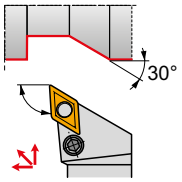
P M K N S H

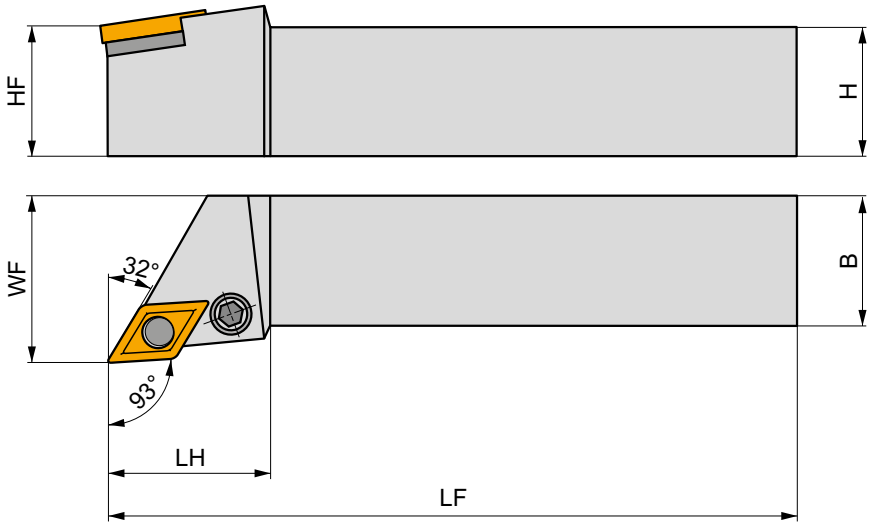
PRAMET

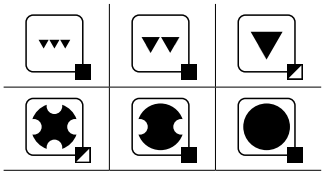
P

External Lever Lock Turning Holder with 93° Cutting Angle for DN.. Insert

External Right/Left hand lever lock tool holder with 93° cutting angle. Suited for longitudinal turning with shoulder, copy turning up to 30°, and chamfering with negative DN.. 11 and 15 size inserts. Available with shank size 20x20 up to 32x32 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PDJNR 2020 K 11	20	20	20	25	125	30	-6	-6	0.43	GI046	PD60
	PDJNR 2525 M 11	25	25	25	32	150	30	-6	-6	0.73	GI046	PD60
	PDJNR 3225 P 11	32	25	32	32	170	30	-6	-6	1.10	GI046	PD60
	PDJNR 2020 K 15	20	20	20	25	125	40	-6	-6	0.44	GI044	PD31
	PDJNR 2525 M 15	25	25	25	32	150	40	-6	-6	0.73	GI044	PD30
	PDJNR 3225 P 15	32	25	32	32	170	40	-6	-6	1.05	GI044	PD30
	PDJNR 3232 P 15	32	32	32	40	170	40	-6	-6	1.30	GI044	PD30
L	PDJNL 2020 K 11	20	20	20	25	125	30	-6	-6	0.41	GI046	PD60
	PDJNL 2525 M 11	25	25	25	32	150	30	-6	-6	0.73	GI046	PD60
	PDJNL 3225 P 11	32	25	32	32	170	30	-6	-6	1.10	GI046	PD60
	PDJNL 2020 K 15	20	20	20	25	125	40	-6	-6	0.42	GI044	PD31
	PDJNL 2525 M 15	25	25	25	32	150	40	-6	-6	0.73	GI044	PD30
	PDJNL 3225 P 15	32	25	32	32	170	40	-6	-6	0.98	GI044	PD30
	PDJNL 3232 P 15	32	32	32	40	170	40	-6	-6	1.30	GI044	PD30

GI044	DN.. 1506..
GI046	DN.. 1104..

				Nm					
PD30	DNU 150308	PU 03	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PD31	DNU 150308	PU 03	US 40	6.0	M 8x1	20.5	NT 05	MT 05	HXK 4
PD60	PDN 110308	PU 3512	PS 0616	3.0	M 6	16	NT 5153	MT 0912	HXK 2.5

PDNN(RL) EXT

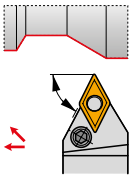
P M K N S H

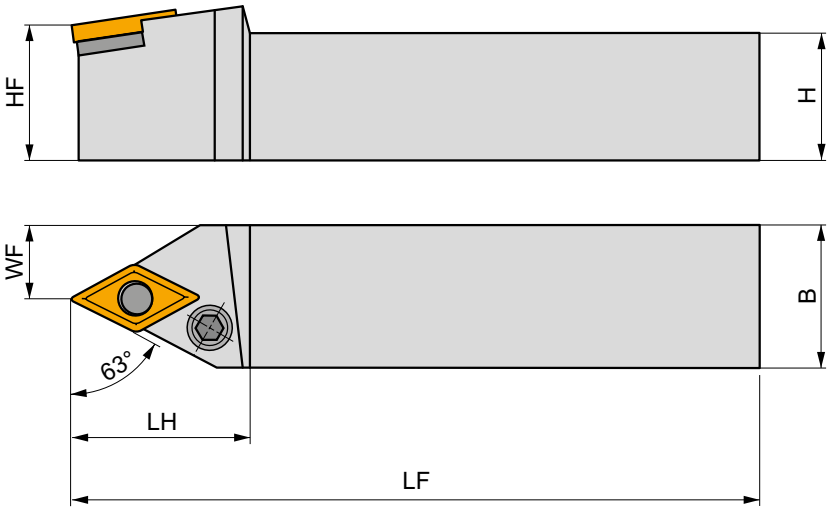
PRAMET

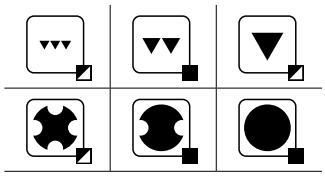
P

External Lever Lock Turning Holder with 63° Cutting Angle for DN.. Insert

External Right/Left hand lever lock 63° (neutral) tool holder. Suited for longitudinal turning without shoulder, taper, copy, and chamfer turning with negative DN.. 15 size inserts. Available with shank size 20x20 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PDNNR 2020 K 11	20	20	20	10	125	24	-6	-6	0.39	GI046	PD60
	PDNNR 2525 M 11	25	25	25	12.5	150	30	-6	-6	0.60	GI046	PD60
	PDNNR 2525 M 15	25	25	25	12.5	150	40	-6	-6	0.64	GI044	PD30
	PDNNR 3225 P 15	32	25	32	12.5	170	40	-6	-6	1.05	GI044	PD30
L	PDNNL 2020 K 11	20	20	20	10	125	24	-6	-6	0.40	GI046	PD60
	PDNNL 2525 M 11	25	25	25	12.5	150	30	-6	-6	0.60	GI046	PD60
	PDNNL 2525 M 15	25	25	25	12.5	150	40	-6	-6	0.07	GI044	PD30
	PDNNL 3225 P 15	32	25	32	12.5	170	40	-6	-6	1.05	GI044	PD30

GI044	DN.. 1506..
GI046	DN.. 1104..

				Nm					
PD30	DNU 150308	PU 03	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PD60	PDN 110308	PU 3512	PS 0616	3.0	M 6	16	NT 5153	MT 0912	HXK 2.5

PDXN(RL) EXT

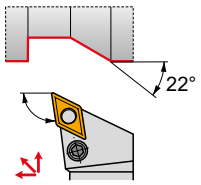
P M K N S H

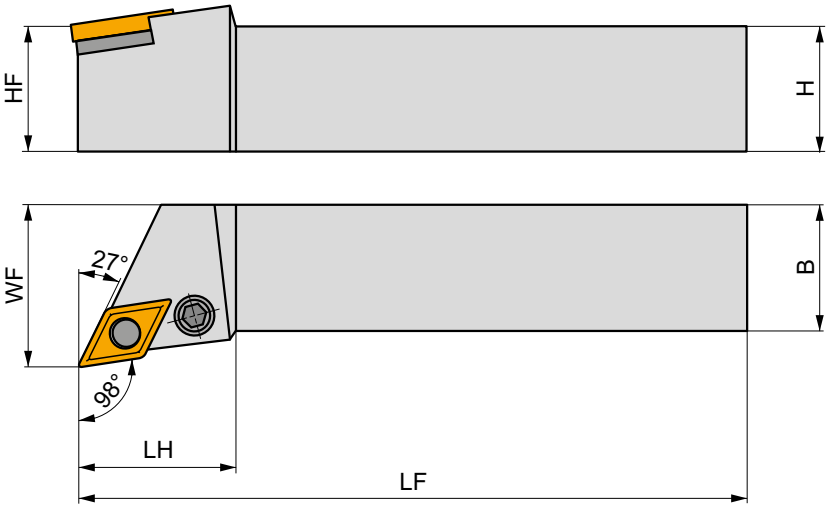
PRAMET

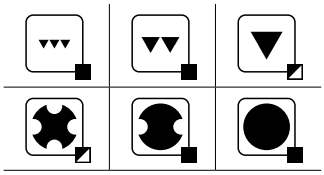
P

External Lever Lock Turning Holder with 98° Cutting Angle for DN.. Insert

External Right/Left hand lever lock tool holder with 98° cutting angle. Suited for taper, longitudinal turning with shoulder, copy turning up to 22° and chamfering with negative DN.. 15 size inserts. Available in 20x20 up to 32x25 mm shanks. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PDXNR 2020 K 15**	20	20	20	25	125	40	-6	-6	0.43	GI044	PD31
	PDXNR 2525 M 15	25	25	25	32	150	40	-6	-6	0.73	GI044	PD30
	PDXNR 3225 P 15	32	25	32	32	170	40	-6	-6	0.80	GI044	PD30
L	**PDXNL 2020 K 15**	20	20	20	25	125	40	-6	-6	0.42	GI044	PD31
	PDXNL 2525 M 15	25	25	25	32	150	40	-6	-6	0.71	GI044	PD30
	PDXNL 3225 P 15	32	25	32	32	170	40	-6	-6	0.95	GI044	PD30

GI044	DN.. 1506..

				Nm					
PD30	DNU 150308	PU 03	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PD31	DNU 150308	PU 03	US 40	6.0	M 8x1	20.5	NT 05	MT 05	HXK 4

C.-DDJN(RL) EXT

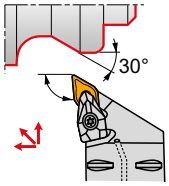
P M K N S H

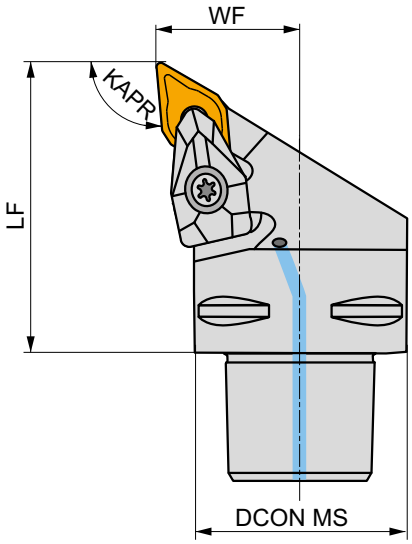
PRAMET

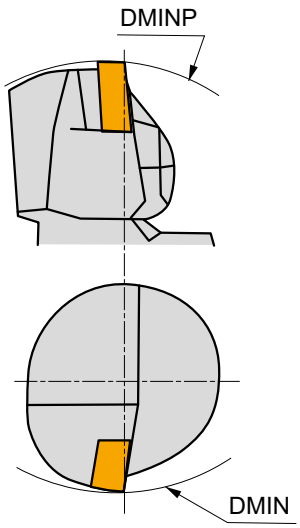
D

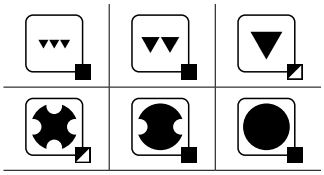
Ext. PSC Quick Change Tool, Double Clamp, 93° Cutting Angle for DN.. Insert

External Right/Left hand double clamp tool, through coolant, with 93° cutting angle for taper and longitudinal turning with shoulder, copying and chamfering with negative DN.. 11 or 15 size inserts. Available with PSC (Polygon Shank Coupling) C4 up to C6 coupling. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	**C4-DDJNR-27050-11**	40	60	140	27	50	93	-7	-6	✓	0.38	GI046	C-DD11	–
	C4-DDJNR-27055-15	40	110	145	27	55	93	-7	-6	✓	0.43	GI044	C-DD154-1	AT002
	C5-DDJNR-35060-15	50	110	165	35	60	93	-7	-6	✓	0.72	GI044	C-DD154-2	AT002
	C6-DDJNR-45065-15	63	110	190	45	65	93	-7	-6	✓	1.18	GI044	C-DD154-3	AT002
L	**C4-DDJNL-27050-11**	40	60	140	27	50	93	-7	-6	✓	0.39	GI046	C-DD11	–
	C4-DDJNL-27055-15	40	110	145	27	55	93	-7	-6	✓	0.43	GI044	C-DD154-1	AT002
	C5-DDJNL-35060-15	50	110	165	35	60	93	-7	-6	✓	0.72	GI044	C-DD154-2	AT002
	C6-DDJNL-45065-15	63	110	190	45	65	93	-7	-6	✓	1.18	GI044	C-DD154-3	AT002

GI044	DN.. 1506..
GI046	DN.. 1104..

		Nm				
C-DD11	DCS 09	1.7	DDS 267-01	US 2004-T09P	FLAG T09P	CN 034-01
C-DD154-1	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5	CN 034-01
C-DD154-2	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5	CN 045-01
C-DD154-3	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5	CN 034-02

AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–
AT002d	CER DN.N 1504..	DCS 12C4	DDS 266-01
AT002e	CER DN.A 1504..	DCS 12C2	DDS 266-01

C.-DDNNN EXT

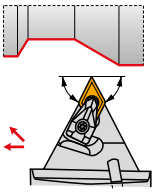
P M K N S H

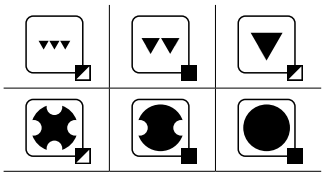
PRAMET

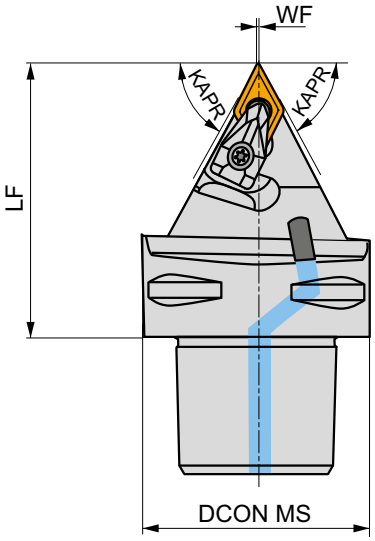
D

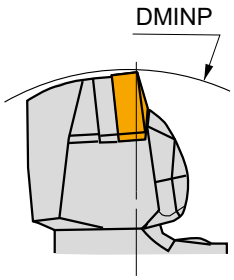
Ext. PSC Quick Change Tool, Double Clamp, 62.5° Cutting Angle for DN.. Insert

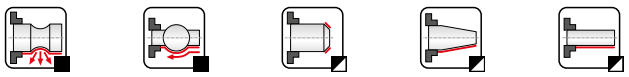
External Right/Left hand double clamp tool, through coolant, with 62.5° cutting angle for taper and longitudinal turning without shoulder, copying and chamfering with negative DN.. 15 size inserts. Available with PSC (Polygon Shank Coupling) C5 and C6 coupling. Body treated for longer tool life.











	Product	DCON MS [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
N	**C5-DDNNN-00060-15**	50	165	0.5	60	62.5	-9	-5	✓	0.62	GI044	C-DD154-2	AT002
	C6-DDNNN-00065-15	63	190	0.5	65	62.5	-9	-5	✓	1.06	GI044	C-DD154-2	AT002

GI044	DN.. 1506..

C-DD154-2	DCS 12	3.9 Nm	DDS 266-02	US 2002-T15P	FLAG T15P/3,5	CN 045-01

AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–
AT002d	CER DN.N 1504..	DCS 12C4	DDS 266-01
AT002e	CER DN.A 1504..	DCS 12C2	DDS 266-01

C.-DDUN(RL) EXT

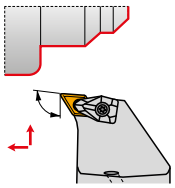
P M K N S H

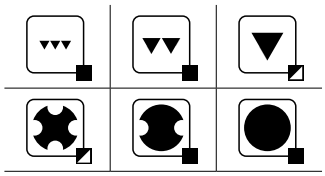
PRAMET

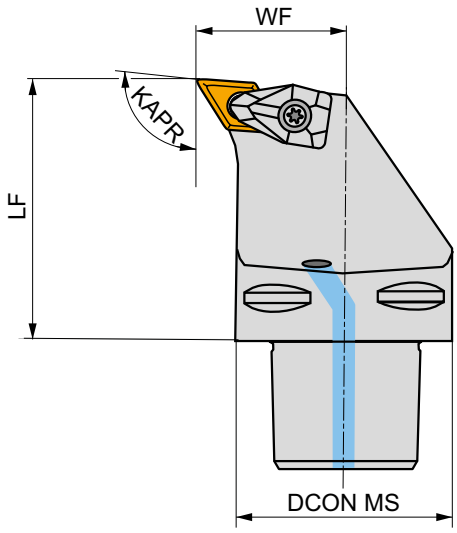
D

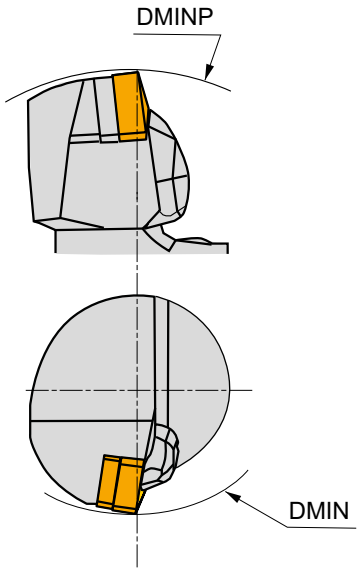
Ext. PSC Quick Change Tool, Double Clamp, 93° (Face) Cutting Angle, DN.. Ins

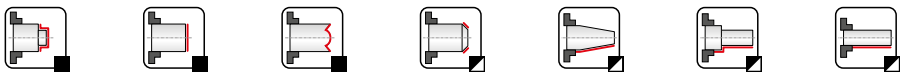
External Right/Left hand double clamp tool, through coolant, with 93° cutting angle for face turning with shoulder, face copy turning, taper turning, longitudinal turning and chamfering with negative DN.. 15 size inserts. Available with PSC (Polygon Shank Coupling) C5 and C6 coupling. Body treated for longer tool life.











	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	C5-DDUNR-35060-15	50	110	165	35	60	93	-7	-6	✓	0.82	GI044	C-DD154-3	AT002
	C6-DDUNR-45065-15	63	110	190	45	65	93	-7	-6	✓	1.39	GI044	C-DD154-3	AT002
L	C5-DDUNL-35060-15	50	110	165	35	60	93	-7	-6	✓	0.82	GI044	C-DD154-3	AT002

GI044	DN.. 1506..

C-DD154-3	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5	CN 034-02

AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–
AT002d	CER DN.N 1504..	DCS 12C4	DDS 266-01
AT002e	CER DN.A 1504..	DCS 12C2	DDS 266-01

DDUN(RL) INT

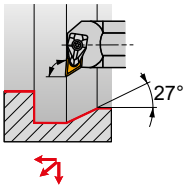
P M K N S H

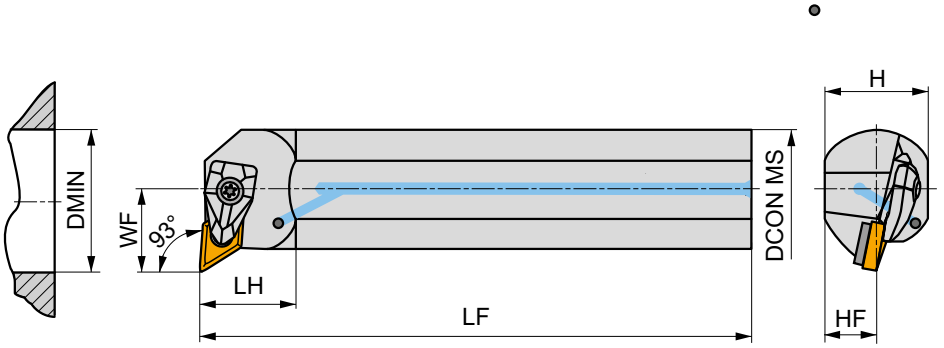
PRAMET

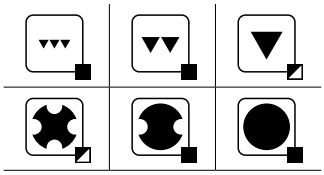
D

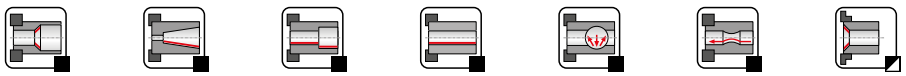
Internal Double Clamp Boring Bar with 93° Cutting Angle for DN.. Insert

Internal Right/Left hand double clamp boring bar, through coolant, 93° cutting angle for DN.. 11 and 15 inserts. Minimum internal turning diameter Ø32 mm. Suited for wide range of internal turning applications, copy turning up to 27°. Available with shank size Ø25 up to Ø50 mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg			
R	A25T-DDUNR 11	25	32	17	23	11.5	300	28	-12	-6	✓	0.96	GI046	DD11	–
	A32T-DDUNR 11	32	40	22	30	15	300	30	-10	-6	✓	1.68	GI046	DD11	–
	A40T-DDUNR 15	40	50	27	37	18.5	300	36	-11	-6	✓	2.59	GI044	DD154	AT002
	A50U-DDUNR 15	50	63	35	47	23.5	350	39	-8	-6	✓	5.23	GI044	DD154	AT002
L	A25T-DDUNL 11	25	32	17	23	11.5	300	28	-12	-6	✓	0.96	GI046	DD11	–
	A32T-DDUNL 11	32	40	22	30	15	300	30	-10	-6	✓	1.69	GI046	DD11	–
	A40T-DDUNL 15	40	50	27	37	18.5	300	36	-11	-6	✓	2.59	GI044	DD154	AT002
	A50U-DDUNL 15	50	63	35	47	23.5	350	39	-8	-6	✓	5.25	GI044	DD154	AT002

GI044	DN.. 1506..
GI046	DN.. 1104..

		Nm			
DD11	DCS 09	1.7	DDS 267-01	US 2004-T09P	FLAG T09P
DD154	DCS 12	3.9	DDS 266-02	US 2002-T15P	FLAG T15P/3,5

AT002a	DN.. 1504..	–	DDS 266-01
AT002b	CER DN.N 1506..	DCS 12C4	–
AT002c	CER DN.A 1506..	DCS 12C2	–

PDUN(RL) INT

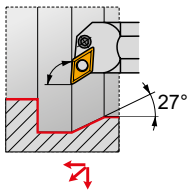
P M K N S H

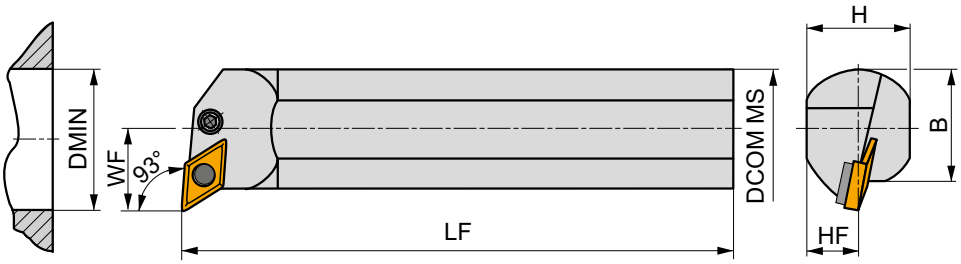
PRAMET

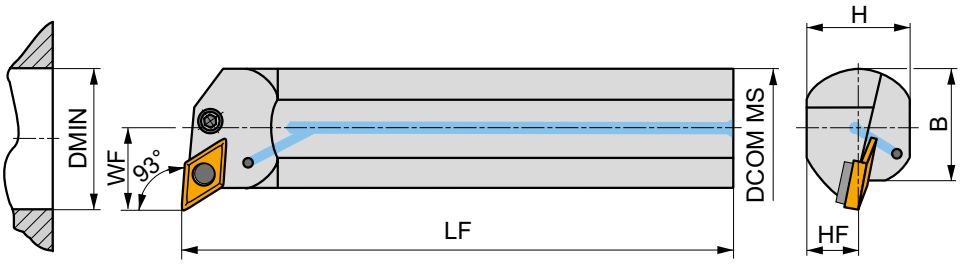
P

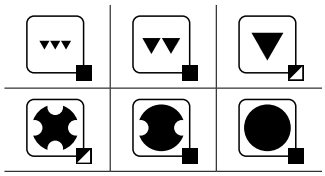
Internal Lever Lock Boring Bar with 93° Cutting Angle for DN.. Insert

Internal Right/Left hand lever lock boring bar, through coolant available, 93° cutting angle for DN.. 11 and 15 inserts. Minimum internal turning diameter Ø32 mm. For a wide range of internal turning applications, copy turning up to 27°. Available with shank size Ø25 up to Ø60 mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	**S25T-PDUNR 11-A**	25	32	17	23	23	300	-12	-6	–	1.10	GI046	PD61
	S32U-PDUNR 11	32	40	22	30	30	350	-12	-6	–	2.10	GI046	PD60
	A32S-PDUNR 15	32	40	32	30	30	250	-12	-6	✓	1.47	GI097	PD33
	A40T-PDUNR 15	40	50	27	38	38	300	-12	-6	✓	2.40	GI097	PD30
	A50U-PDUNR 15	50	63	35	47	48.5	350	-12	-6	✓	4.95	GI097	PD30
	A60V-PDUNR 15	60	80	43	57	58.5	400	-12	-6	✓	8.22	GI097	PD30
L	**S25T-PDUNL 11-A**	25	32	17	23	23	300	-12	-6	–	1.11	GI046	PD61
	S32U-PDUNL 11	32	40	22	30	30	350	-12	-6	–	2.09	GI046	PD60
	A32S-PDUNL 15	32	40	32	30	30	250	-12	-6	✓	1.47	GI097	PD33
	A40T-PDUNL 15	40	50	27	38	38	300	-12	-6	✓	2.56	GI097	PD30
	A50U-PDUNL 15	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI097	PD30
	A60V-PDUNL 15	60	80	43	57	58.5	400	-12	-6	✓	8.16	GI097	PD30

GI046	DN.. 1104..
GI097	DN.. 1504..

				Nm					
PD30	DNU 150308	PU 03	US 36	6.0	M 8x1	26	NT 05	MT 05	HXK 4
PD33	–	PU 03-A	US 41	6.0	M 8x1	17	NT 15	MT 05	HXK 4
PD60	PDN 110308	PU 3512	PS 0616	3.0	M 6	16	NT 5153	MT 0912	HXK 2.5
PD61	–	PU 3611-A	PS 0512-A	2.0	M 5	12	–	–	HXK 2

C.-DDUN(RL) INT

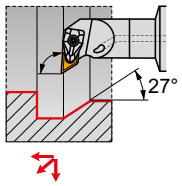
P M K N S H

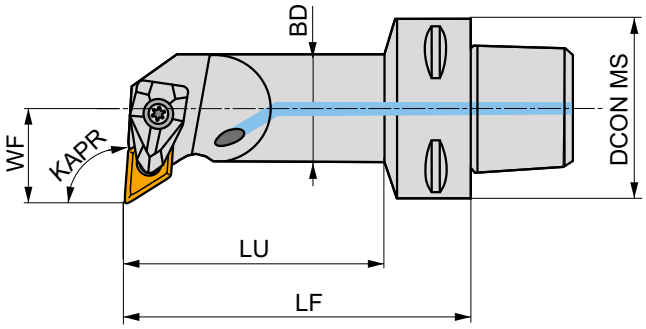
PRAMET

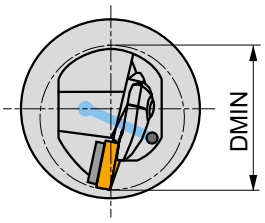
D

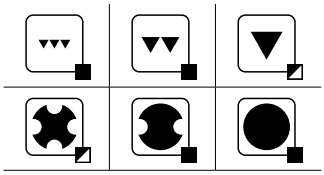
Int. PSC Quick Change Tool, Double Clamp, 93° Cutting Angle for DN.. Insert

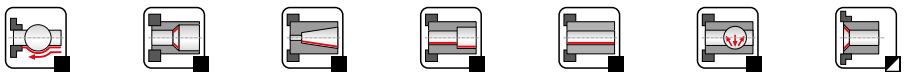
Internal Right/Left hand double clamp tool, through coolant, with 93° cutting angle for internal turning applications including copy turning up to 27° with DN.. 11 inserts, minimum internal diameter Ø32mm. PSC shank (Polygon Shank Coupling) size C4 with turning length of 68 mm. Body treated for longer tool life.











	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-DDUNR-17090-11	40	32	17	90	68	25	93	-12	-6	✓	0.51	GI046	DD11
L	C4-DDUNL-17090-11	40	32	17	90	68	25	93	-12	-6	✓	0.51	GI046	DD11

GI046	DN.. 1104..

DD11	DCS 09	1.7 Nm	DDS 267-01	US 2004-T09P	FLAG T09P

KN 16

CARBIDE INSERTS

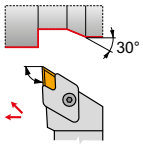
KNUX

284

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
KNUX 160405L-22	CKJNR 2020 K 16

ISO TURNING – EXTERNAL

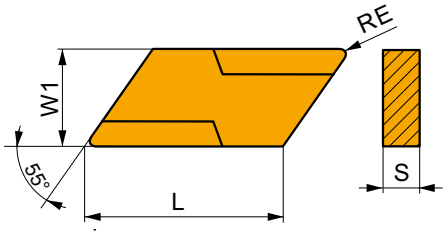
CKJN(RL) EXT

93°	KN..
	 16
 20×20 32×25	
287	284 – 286

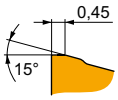
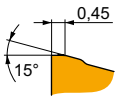
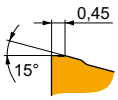
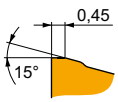
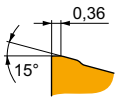
KNUX

PRAMET

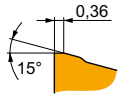
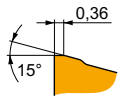
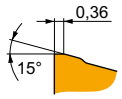
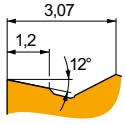
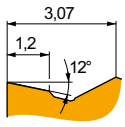
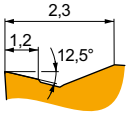
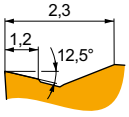
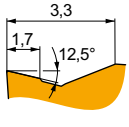
	W1 [mm]	L [mm]	S [mm]
1604	9.525	19.50	4.76



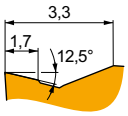
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			U E																	
			L-22 geometry with left-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405L-22	**T5315**	0.5	◪ 190	0.25	2.7	–	–	–	◪ 180	0.25	2.7	–	–	–	–	–	–	–	–	–
	T7325	0.5	◪ 130	0.25	2.7	◪ 100	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.5	◪ 125	0.25	2.7	◪ 95	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.5	■ 155	0.25	2.7	◪ 90	0.25	2.7	◪ 145	0.25	2.7	–	–	–	–	–	–	–	–	–
	T9335	0.5	■ 135	0.25	2.7	◪ 80	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
			U E																	
			R-22 geometry with right-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405R-22	**T5315**	0.5	◪ 190	0.25	2.7	–	–	–	◪ 180	0.25	2.7	–	–	–	–	–	–	–	–	–
	T7325	0.5	◪ 130	0.25	2.7	◪ 100	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.5	◪ 125	0.25	2.7	◪ 95	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.5	■ 155	0.25	2.7	◪ 90	0.25	2.7	◪ 145	0.25	2.7	–	–	–	–	–	–	–	–	–
	T9335	0.5	■ 135	0.25	2.7	◪ 80	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
			U E																	
			L-22 geometry with left-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160410L-22	**T9335**	1.0	■ 155	0.32	2.7	◪ 90	0.29	2.7	–	–	–	–	–	–	–	–	–	–	–	–
			U E																	
			R-22 geometry with right-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160410R-22	**T9335**	1.0	■ 155	0.32	2.7	◪ 90	0.29	2.7	–	–	–	–	–	–	–	–	–	–	–	–
			U E																	
			L-32 geometry with left-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405L-32	**T5315**	0.5	◪ 190	0.25	2.7	–	–	–	◪ 180	0.25	2.7	–	–	–	–	–	–	–	–	–
	T7325	0.5	◪ 130	0.25	2.7	◪ 100	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.5	◪ 125	0.25	2.7	◪ 95	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.5	■ 155	0.25	2.7	◪ 90	0.25	2.7	◪ 145	0.25	2.7	–	–	–	–	–	–	–	–	–
	T9335	0.5	■ 135	0.25	2.7	◪ 80	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			R-32 geometry with right-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405R-32	**T5315**	0.5	190	0.25	2.7	–	–	–	180	0.25	2.7	–	–	–	–	–	–	–	–	–
	T7325	0.5	130	0.25	2.7	100	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.5	125	0.25	2.7	95	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.5	155	0.25	2.7	90	0.25	2.7	145	0.25	2.7	–	–	–	–	–	–	–	–	–
	T9335	0.5	135	0.25	2.7	80	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–
																				
			L-32 geometry with left-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160410L-32	**T9325**	1.0	175	0.32	2.7	105	0.29	2.7	165	0.32	2.7	–	–	–	–	–	–	–	–	–
	T9335	1.0	155	0.32	2.7	90	0.29	2.7	–	–	–	–	–	–	–	–	–	–	–	–
																				
			R-32 geometry with right-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160410R-32	**T9325**	1.0	175	0.32	2.7	105	0.29	2.7	165	0.32	2.7	–	–	–	–	–	–	–	–	–
	T9335	1.0	155	0.32	2.7	90	0.29	2.7	–	–	–	–	–	–	–	–	–	–	–	–
																				
			ER-72 geometry with right-handed design for fine to finish machining, and continuous cuts.																	
KNUX 160405ER-72	**T5315**	0.5	250	0.20	2.0	–	–	–	235	0.20	2.0	–	–	–	–	–	–	–	–	–
	T9325	0.5	215	0.20	2.0	125	0.18	2.0	200	0.20	2.0	–	–	–	45	0.16	1.6	–	–	–
	T9335	0.5	185	0.20	2.0	110	0.18	2.0	–	–	–	–	–	–	40	0.16	1.6	–	–	–
																				
			EL-72 geometry with left-handed design for fine to finish machining, and continuous cuts.																	
KNUX 160405EL-72	**T5315**	0.5	250	0.20	2.0	–	–	–	235	0.20	2.0	–	–	–	–	–	–	–	–	–
	T9325	0.5	215	0.20	2.0	125	0.18	2.0	200	0.20	2.0	–	–	–	45	0.16	1.6	–	–	–
	T9335	0.5	185	0.20	2.0	110	0.18	2.0	–	–	–	–	–	–	40	0.16	1.6	–	–	–
																				
			ER-73 geometry with right-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405SR-73	**6640**	0.5	150	0.25	3.0	90	0.23	3.0	140	0.25	3.0	–	–	–	–	–	–	–	–	–
KNUX 160410SR-73	**6640**	1.0	150	0.40	3.0	90	0.36	3.0	140	0.40	3.0	–	–	–	–	–	–	–	–	–
	T5315	1.0	235	0.40	3.0	–	–	–	220	0.40	3.0	–	–	–	–	–	–	–	–	–
																				
			EL-73 geometry with left-handed design for finish to semi-rough machining, and continuous cuts.																	
KNUX 160405SL-73	**6640**	0.5	150	0.25	3.0	90	0.23	3.0	140	0.25	3.0	–	–	–	–	–	–	–	–	–
KNUX 160410SL-73	**6640**	1.0	150	0.40	3.0	90	0.36	3.0	140	0.40	3.0	–	–	–	–	–	–	–	–	–
																				
			ER-74 geometry with right-handed design for finish to rough machining, and continuous cuts.																	
KNUX 160415SR-74	**6640**	1.5	155	0.45	3.0	90	0.41	3.0	145	0.45	3.0	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
KNUX 160415SL-74	**6640**	1.5	■ 155	0.45	3.0	◪ 90	0.41	3.0	■ 145	0.45	3.0	–	–	–	–	–	–	–	–	–

E

EL-74 geometry with left-handed design for finish to rough machining, and continuous cuts.

CKJN(RL) EXT

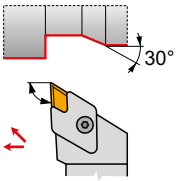
P M K N S H

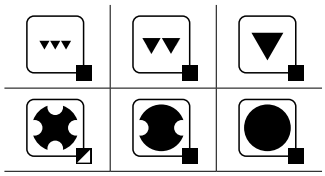
PRAMET

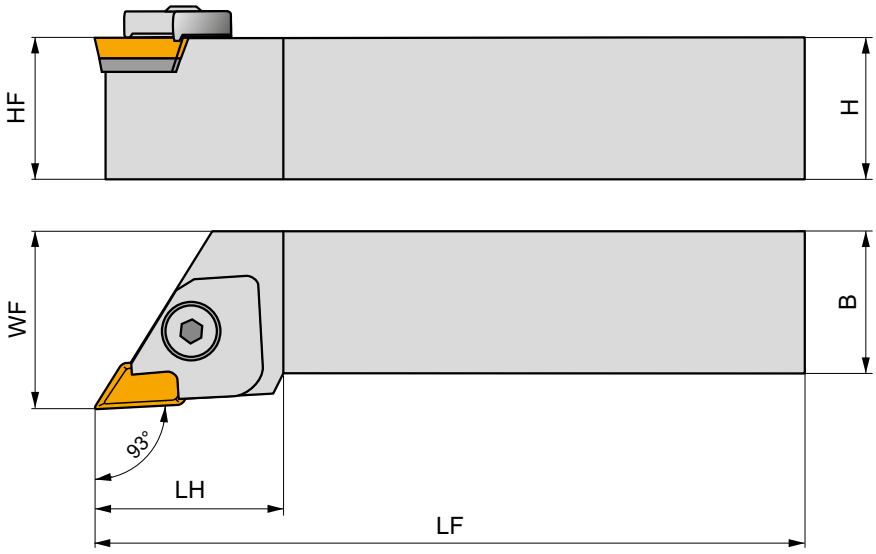
C

External Top Clamp Turning Holder with 93° Cutting Angle for KN.. 16 Insert

External Right/Left hand top clamp tool holder with 93° cutting angle. Suited for taper, longitudinal turning with shoulder, copy turning up to 30° and chamfering with negative KN.. 16 size inserts. Available in 20x20 up to 32x25 mm shanks. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**CKJNR 2020 K 16**	20	20	20	30	125	34	1	-5	0.43	GI066	R1
	CKJNR 2525 M 16	25	25	25	32	150	34	1	-5	0.70	GI066	R
	CKJNR 3225 P 16	32	25	32	32	170	34	1	-5	1.05	GI066	R
L	**CKJNL 2020 K 16**	20	20	20	30	125	34	1	-5	0.43	GI067	L1
	CKJNL 2525 M 16	25	25	25	32	150	34	1	-5	0.74	GI067	L
	CKJNL 3225 P 16	32	25	32	32	170	34	1	-5	1.06	GI067	L

GI066	KN.X 1604…R
GI067	KN.X 1604…L

						Nm			
L	KNN 190412L	NT 03	–	UP 26	US 83	6.0	PR 07	K 23	HXK 4
L1	KNN 190412L	NT 03	–	UP 26	US 83	6.0	PR 07	K 22	HXK 4
R	KNN 190412R	NT 03	UP 25	–	US 83	6.0	PR 07	K 23	HXK 4
R1	KNN 190412R	NT 03	UP 25	–	US 83	6.0	PR 07	K 22	HXK 4

LN

19/ 30/ 40/ 50

CARBIDE INSERTS

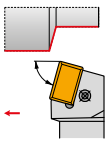
LNUX 40, LN.X 50

289

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
LNUX **40**-1129003	KHP-LBNR **40**-A

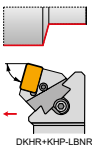
ISO TURNING – EXTERNAL

PLBN(RL) EXT

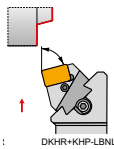
75°	LN..
	 40, 50
60×60	
290	289

ISO TURNING – HEAVY ROUGHING – EXTERNAL

KHP-LBNR + DKH(RL)

75°	LN..
	 40
40×50 60×80	
291, 292	289

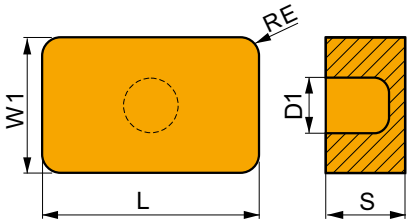
KHP-LBNL + DKH(RL)

75°	LN..
	 40
40×50 60×80	
291, 292	289

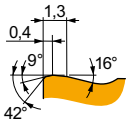
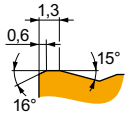
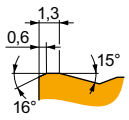
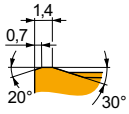
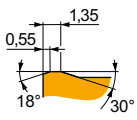
LNUX 40, LN.X 50

PRAMET

	W1 [mm]	D1 [mm]	L [mm]	S [mm]
40-1	25.200	9.30	40.00	14.00
50-1	25.400	9.30	50.80	14.00
50-2	25.400	6.45	50.80	14.00
5014	25.400	6.35	50.80	14.00



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			For heavy rough machining and continuous to interrupted cuts.																	
LNUX 40-1129002	**T9226**	3.2	45	1.35	25.0	–	–	–	40	1.35	25.0	–	–	–	–	–	–	–	–	–
	T9325	3.2	55	1.35	25.0	–	–	–	50	1.35	25.0	–	–	–	–	–	–	–	–	–
	T9335	3.2	40	1.35	25.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			For heavy rough machining and continuous to interrupted cuts.																	
LNUX 40-1129003	**T9226**	3.2	45	1.35	25.0	–	–	–	40	1.35	25.0	–	–	–	–	–	–	–	–	–
	T9325	3.2	55	1.35	25.0	–	–	–	50	1.35	25.0	–	–	–	–	–	–	–	–	–
	T9335	3.2	40	1.35	25.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			For heavy rough machining and continuous to interrupted cuts.																	
LNUX 50-1275000	**T9226**	3.2	45	1.35	25.0	–	–	–	40	1.35	25.0	–	–	–	–	–	–	–	–	–
	T9325	3.2	55	1.35	25.0	–	–	–	50	1.35	25.0	–	–	–	–	–	–	–	–	–
			Design for heavy rough machining and continuous to heavy interrupted cuts.																	
LNMX 501432E	**T9335**	3.2	45	1.50	25.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			For heavy rough machining and continuous to interrupted cuts.																	
LNMX 50-2284000	**T9315**	3.2	60	1.50	25.0	–	–	–	55	1.50	25.0	–	–	–	–	–	–	–	–	–

PLBN(RL) EXT

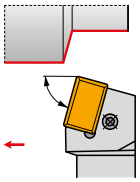
P M K

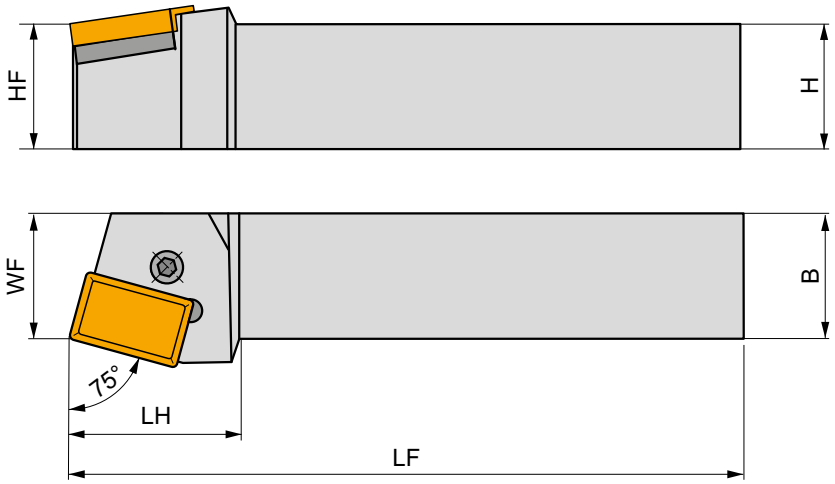
PRAMET

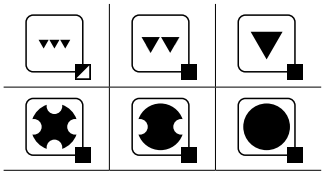
P

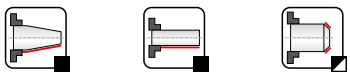
External Lever Lock Heavy Turning Holder, 75° Cutting Angle for LNUX Insert

External Right/Left hand lever lock tool holder with 75° cutting angle for heavy turning. Suited for longitudinal turning without shoulder, taper and chamfer turning with negative LN.. 40 and 50 size inserts. Available in 60x60 mm shank. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PLBNR 6060 V 40-A**	60	60	60	60	400	64	-6	-6	13.00	GI102	PL71
	PLBNR 6060 V 50	60	60	60	60	400	70	-6	-6	12.75	GI145	PL72
	PLBNR 6060 V 50-2	60	60	60	60	400	70	-6	-6	11.60	GI291	PL73
L	**PLBNL 6060 V 40-A**	60	60	60	60	400	64	-6	-6	11.14	GI102	PL71
	PLBNL 6060 V 50	60	60	60	60	400	70	-6	-6	13.09	GI145	PL72

GI102	LNUX 40....
GI145	LNUX 50....
GI291	LNMX 50....

				Nm							
PL71	LNX 400632	PU 06	PS 12040	8.0	M 12x1	40	NT 08	MT 08	HXK 5	–	–
PL72	LNX 500632	PU 06	PS 12040	8.0	M 12x1	40	NT 08	MT 08	HXK 5	–	–
PL73	LNX 500432P	–	–	–	–	–	–	–	–	UP 1515A-T15P	SDR T15P

KHP-LBN(RL)

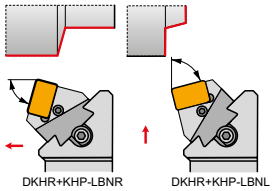
P M K

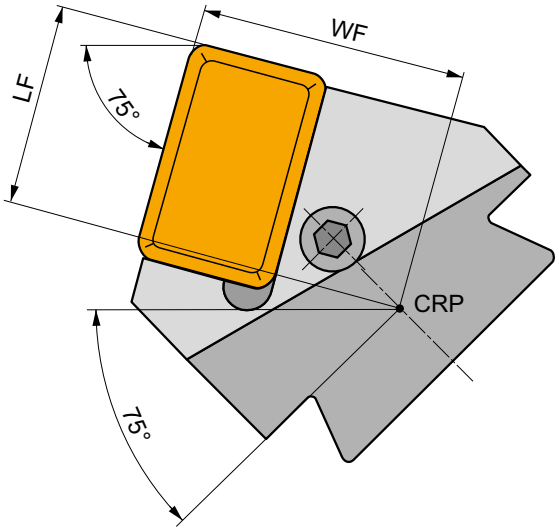
PRAMET

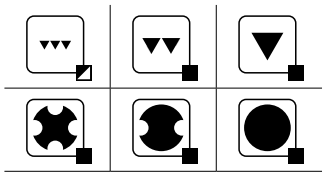
P

Modular KHP Lever Lock Turning Cartridge, 75° Cutting Angle for LNUX Inserts

Dovetailed Right/Left hand lever lock turning cartridge, 75° Cutting Angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, taper and chamfer turning with negative LNUX 40 inserts. Tool holder treated for longer tool life.







	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
L	**KHP-LBNR 40-A**	48	36	-6	-6	1.50	GI102	PL71
	KHP-LBNL 40-A	48	36	-6	-6	1.47	GI102	PL71

GI102	LNUX 40....

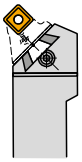
PL71	LNX 400632	PU 06	PS 12040	8.0 Nm	M 12x1	40	NT 08	MT 08	HXK 5

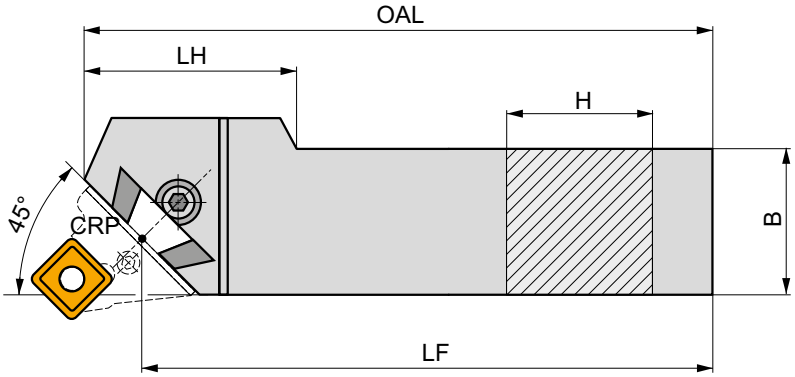
DKH(RL)

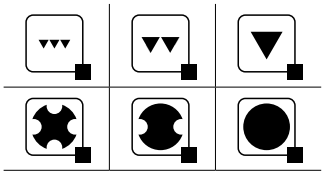
PRAMET

External Tool Holder Shank for KHP/KHS Heavy Turning Cartridges

Dovetailed Right/Left hand modular tool shank for KHP/KHS cartridges. Suited for heavy turning applications. Available with shank size 40x50 up to 60x80 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	LF [mm]	OAL [mm]	LH [mm]	kg		
R	**DKHR 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHR 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHR 6080 W-A	60	80	450	485	90	19.65	GI098	DKH10
L	**DKHL 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHL 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHL 6080 W-A	60	80	450	485	90	19.28	GI098	DKH10

GI098	KHP	KHS

DKH10	SR 14	HXK 10

RN

09/ 12/ 15/ 19/ 25

CARBIDE INSERTS

RNMG

294

CER INSERTS

RNGN CER

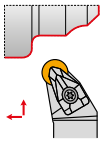
294

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
RNMG 120400E-08	DRSNR 2525 M 12

ISO TURNING – EXTERNAL

DRSN(RL) EXT

RN..
12

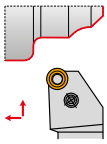


25×25

295 | 294

PRSN(RL) EXT

RN..
12 15 19

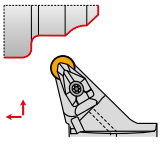


25×25
40×40

296 | 294

C.-DRSN(RL) EXT

RN..
12



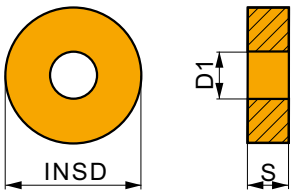
C6

297 | 294

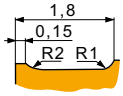
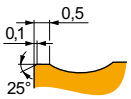
RNMG

PRAMET

	INSD [mm]	D1 [mm]	S [mm]
1204	12.700	5.16	4.76
1506	15.875	6.35	6.35
1906	19.050	7.94	6.35
2509	25.400	9.12	9.53



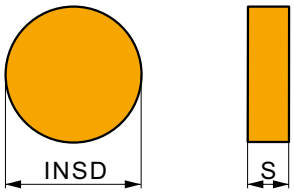
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HFC S																	
Geometry 08 for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																				
RNMG 120400E-08	**T5305**	–	195	0.70	3.0	–	–	–	185	0.70	3.0	–	–	–	–	–	–	35	0.15	1.0
	T9315	–	150	0.70	3.0	–	–	–	140	0.70	3.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	–	135	0.70	3.0	–	–	–	125	0.70	3.0	–	–	–	–	–	–	–	–	–
RNMG 150600E-08	**T5305**	–	295	0.70	3.0	–	–	–	280	0.70	3.0	–	–	–	–	–	–	55	0.15	1.0
	T9315	–	225	0.70	3.0	–	–	–	210	0.70	3.0	–	–	–	–	–	–	45	0.15	1.0
	T9325	–	205	0.70	3.0	–	–	–	190	0.70	3.0	–	–	–	–	–	–	–	–	–
RNMG 190600E-08	**T9315**	–	150	0.70	3.0	–	–	–	140	0.70	3.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	–	135	0.70	3.0	–	–	–	125	0.70	3.0	–	–	–	–	–	–	–	–	–
			HFC P																	
Geometry 081 for rough to heavy-rough machining, and continuous to interrupted cuts.																				
RNMG 250900E-081	**T9315**	–	145	0.90	5.0	–	–	–	135	0.90	5.0	–	–	–	–	–	–	25	0.15	1.0
	T9325	–	130	0.90	5.0	–	–	–	120	0.90	5.0	–	–	–	–	–	–	–	–	–

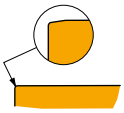
RNGN CER

PRAMET

	INSD [mm]	S [mm]
0903	9.525	3.18
1204	12.700	4.76
1207	12.700	7.94



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC T																	
For machining with high speeds and continuous cuts.																				
RNGN 090300 T01020	**TC100**	–	–	–	–	–	–	–	460	0.20	1.2	–	–	–	–	–	–	–	–	–
RNGN 120400 T01020	**TC100**	–	–	–	–	–	–	–	455	0.20	1.5	–	–	–	–	–	–	–	–	–
RNGN 120700 T01020	**TC100**	–	–	–	–	–	–	–	455	0.20	1.5	–	–	–	–	–	–	–	–	–
RNGN 120700 T15015	**TC100**	–	–	–	–	–	–	–	455	0.20	1.5	–	–	–	–	–	–	–	–	–

DRSN(RL) EXT

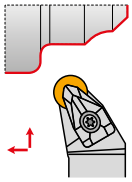
P M K H

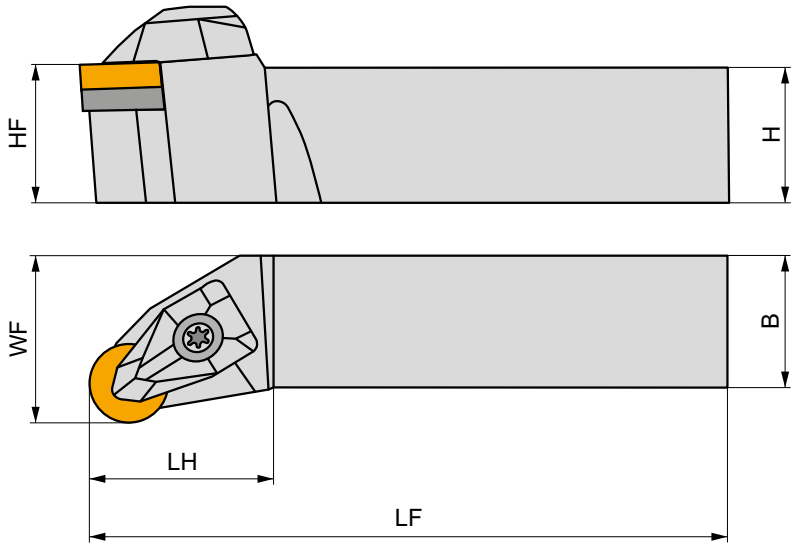
PRAMET

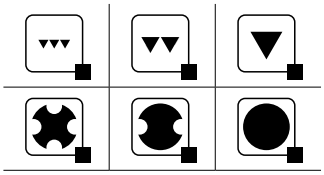
D

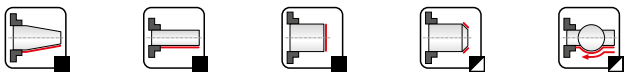
External Double Clamp Holder for RN.. Insert

External Right/Left hand double clamp tool holder. Suited for longitudinal turning without shoulder, copy turning, taper and chamfer turning with negative round RN.. 12 size inserts. Available in 25x25 mm shank. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	DRSNR 2525 M 12	25	25	25	32	150	31.6	-6	-6	0.74	GI083	DR12
L	DRSNL 2525 M 12	25	25	25	32	150	31.6	-6	-6	0.75	GI083	DR12

GI083	RN.. 120400

DR12	DCS 12	3.9	DRS 155-02	US 2002-T15P	FLAG T15P/3,5

PRSN(RL) EXT

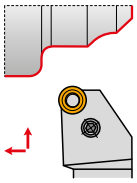
P M K H

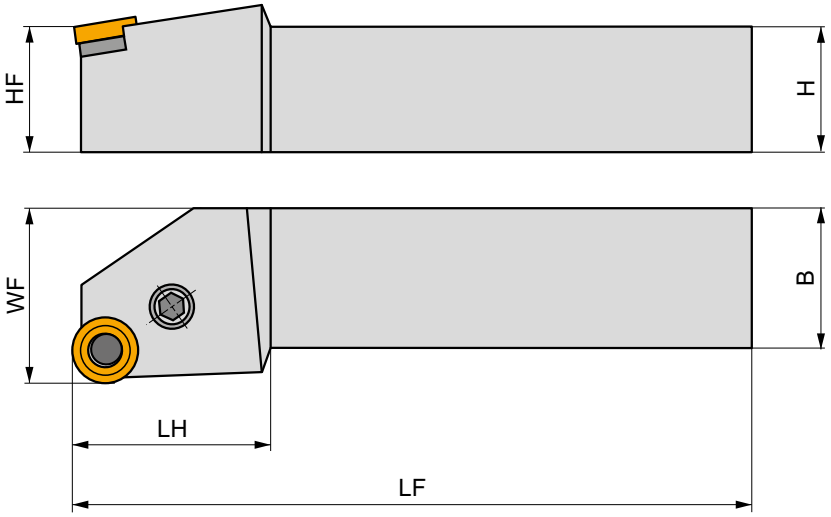
PRAMET

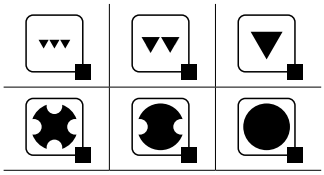
P

External Lever Lock Holder for RN.. Insert

External Right/Left hand lever lock tool holder. Suited for longitudinal turning, copy turning up to 90°, taper and chamfer turning with negative round RN.. 12, 15 and 19 size inserts. Available in 25x25 up to 40x40 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PRSNR 2525 M 12**	25	25	25	32	150	32	-6	-6	0.68	GI083	PR20
	PRSNR 3232 P 15	32	32	32	40	170	38	-6	-6	1.40	GI105	PR40
	PRSNR 4040 R 19	40	40	40	50	200	40	-6	-6	2.49	GI106	PR50
L	**PRSNL 2525 M 12**	25	25	25	32	150	32	-6	-6	0.74	GI083	PR20
	PRSNL 3232 P 15	32	32	32	40	170	38	-6	-6	1.40	GI105	PR40
	PRSNL 4040 R 19	40	40	40	50	200	40	-6	-6	2.48	GI106	PR50

GI083	RN.. 120400
GI105	RN.. 150600
GI106	RN.. 190600

				Nm					
PR20	RNU 120300	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PR40	RNU 150300	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PR50	RNU 190400	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5

C.-DRSN(RL) EXT

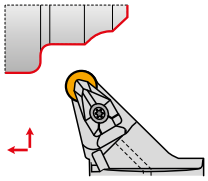
P M K H

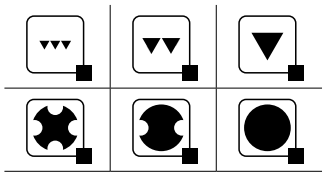
PRAMET

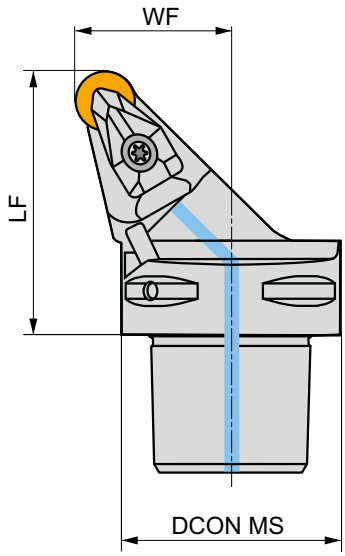
D

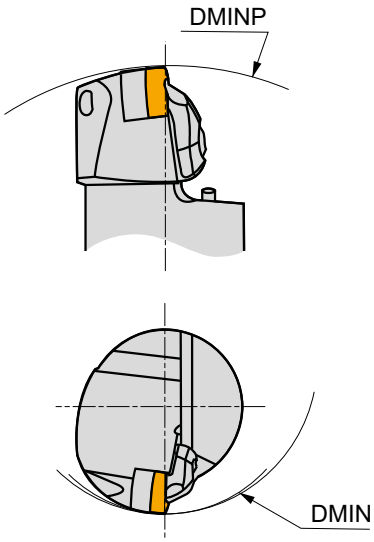
External PSC Quick Change Tool, Double Clamp for RN.. Insert

External Right/Left hand double clamp tool, through coolant, for longitudinal turning without shoulder, copy turning, taper and chamfer turning with negative round RN.. 12 size inserts. Available with PSC (Polygon Shank Coupling) C6 shank. Body treated for longer tool life.













	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg			
R	C6-DRSNR-45065-12	63	110	190	45	65	-6	-6	✓	1.11	GI083	C-DR12	–
L	C6-DRSNL-45065-12	63	110	190	45	65	-6	-6	✓	1.10	GI083	C-DR12	–

GI083	RN.. 120400

C-DR12	DCS 12	3.9 Nm	DRS 155-02	US 2002-T15P	FLAG T15P/3,5	CN 045-01

SN

09/ 12/ 15/ 19/ 25

CARBIDE INSERTS

SNMA

300

SNMG

301

SNMM

307

SNMX

311

CER INSERTS

SNGA CER

311

SNGN CER

312

MATCH THE RIGHT SIZE (example)

Insert	Tool Holder
SNMG 190616E-RM	DSDNN 3232 P 19

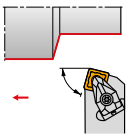
ISO TURNING – EXTERNAL

DSBN(RL) EXT

75°

SN..

12
15
19



20×20
40×40

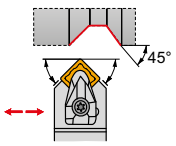
313 | 300 – 312

DSDNN EXT

45°

SN..

12
15
19
25



20×20
40×40

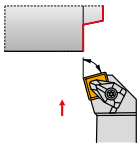
315 | 300 – 312

DSKN(RL) EXT

75°

SN..

12
19



25×25
32×32

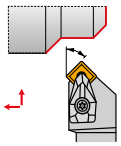
316 | 300 – 312

DSSN(RL) EXT

45°

SN..

12
15
19



20×20
40×40

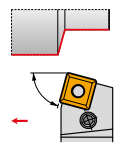
317 | 300 – 312

PSBN(RL) EXT

75°

SN..

12
15
19
25



20×20
50×50

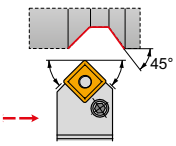
318 | 300 – 312

PSDNN EXT

45°

SN..

12
15
19
25



20×20
50×50

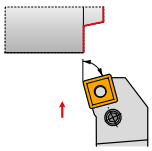
320 | 300 – 312

PSKN(RL) EXT

75°

SN..

12
15
19
25



20×20
50×50

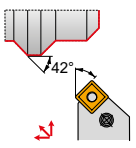
321 | 300 – 312

PSSN(RL) EXT

45°

SN..

19
25



40×40
50×50

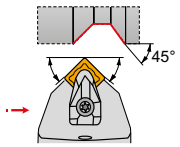
323 | 300 – 312

SN

09/ 12/ 15/ 19/ 25

C.-DSDNN EXT

45°



SN..

12
19

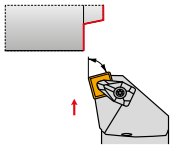
C4
C6

324

300 – 312

C.-DSKN(RL) EXT

75°



SN..

12

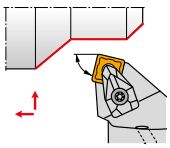
C4

325

300 – 312

C.-DSRN(RL) EXT

75°



SN..

12
19

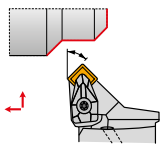
C4
C6

326

300 – 312

C.-DSSN(RL) EXT

45°



SN..

12

C4
C5

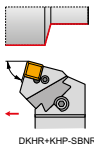
327

300 – 312

ISO TURNING – HEAVY ROUGHING – EXTERNAL

KHP-SBNR + DKH(RL)

75°



SN..

25

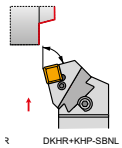
40×50
60×80

328, 330

300 – 312

KHP-SBNL + DKH(RL)

75°



SN..

25

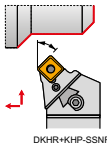
40×50
60×80

328, 330

300 – 312

KHP-SSNR/L + DKH(RL)

45°



SN..

19
25

40×50
60×80

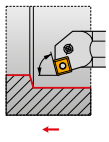
329, 330

300 – 312

ISO TURNING – INTERNAL

PSKN(RL) INT

93°



SN..

11
15

32
80

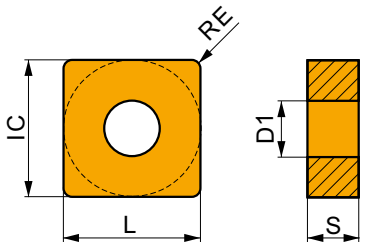
331

300 – 312

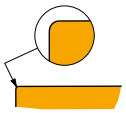
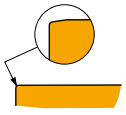
SNMA

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.70	4.76
1506	15.875	6.35	15.875	6.35
1906	19.050	7.94	19.05	6.35
2507	25.400	9.12	25.40	7.94
2509	25.400	9.12	25.40	9.525



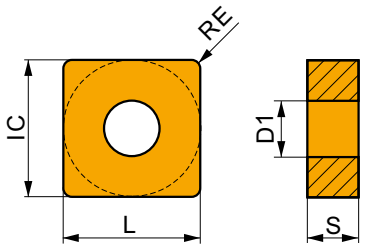
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SNMA 120408	**T5305**	0.8	–	–	–	–	–	–	230	0.20	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	200	0.20	4.0	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	100	0.20	4.0	–	–	–	–	–	–	25	0.15	1.0
SNMA 120412	**T5305**	1.2	–	–	–	–	–	–	205	0.30	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	190	0.30	4.0	–	–	–	–	–	–	40	0.15	1.0
SNMA 150612	**T5305**	1.2	–	–	–	–	–	–	200	0.30	5.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	185	0.30	5.0	–	–	–	–	–	–	35	0.15	1.0
SNMA 190612	**T5305**	1.2	–	–	–	–	–	–	195	0.30	6.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	180	0.30	6.0	–	–	–	–	–	–	35	0.15	1.0
SNMA 190616	**T5305**	1.6	–	–	–	–	–	–	190	0.40	6.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.6	–	–	–	–	–	–	170	0.40	6.0	–	–	–	–	–	–	35	0.15	1.0
SNMA 250724	**T5305**	2.4	–	–	–	–	–	–	95	0.60	8.0	–	–	–	–	–	–	20	0.15	1.0
	T5315	2.4	–	–	–	–	–	–	90	0.60	8.0	–	–	–	–	–	–	15	0.15	1.0
SNMA 250924	**T5305**	2.4	–	–	–	–	–	–	95	0.60	8.0	–	–	–	–	–	–	20	0.15	1.0
	T5315	2.4	–	–	–	–	–	–	90	0.60	8.0	–	–	–	–	–	–	15	0.15	1.0
			S																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SNMA 120412S	**T5305**	1.2	–	–	–	–	–	–	205	0.30	4.0	–	–	–	–	–	–	40	0.15	1.0
SNMA 190616S	**T5305**	1.6	–	–	–	–	–	–	195	0.30	6.0	–	–	–	–	–	–	40	0.15	1.0
SNMA 250724S	**T5305**	2.4	–	–	–	–	–	–	95	0.60	8.0	–	–	–	–	–	–	20	0.15	1.0
SNMA 250924S	**T5305**	2.4	–	–	–	–	–	–	95	0.60	8.0	–	–	–	–	–	–	20	0.15	1.0

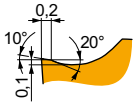
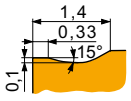
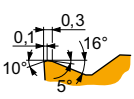
SNMG

PRAMET

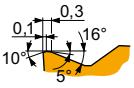
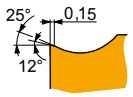
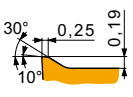
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.70	4.76
1506	15.875	6.35	15.875	6.35
1906	19.050	7.94	19.05	6.35
2507	25.400	9.12	25.40	7.94
2509	25.400	9.12	25.40	9.525



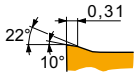
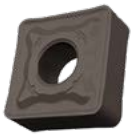
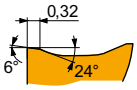
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
SNMG 120404E-FM	**T6310**	0.4	175	0.20	2.1	125	0.18	2.1	140	0.20	2.1	–	–	–	50	0.14	1.7	–	–	–
	T7325	0.4	195	0.20	2.1	150	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T8315	0.4	180	0.20	2.1	105	0.18	2.1	170	0.20	2.1	–	–	–	45	0.14	1.7	–	–	–
	T8330	0.4	175	0.20	2.1	105	0.18	2.1	165	0.20	2.1	–	–	–	40	0.14	1.7	–	–	–
	T8430	0.4	195	0.20	2.1	105	0.18	2.1	160	0.20	2.1	–	–	–	40	0.14	1.7	–	–	–
	T9315	0.4	270	0.20	2.1	–	–	–	255	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	2.1	140	0.18	2.1	225	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
SNMG 120408E-FM	**T7325**	0.8	235	0.20	2.1	180	0.18	2.1	–	–	–	–	–	–	75	0.16	1.7	–	–	–
	T8315	0.8	215	0.20	2.1	125	0.18	2.1	200	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
	T8330	0.8	205	0.20	2.1	120	0.18	2.1	190	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
	T8430	0.8	235	0.20	2.1	125	0.18	2.1	190	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
	T9310	0.8	355	0.20	2.1	–	–	–	335	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9315	0.8	320	0.20	2.1	–	–	–	300	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.8	290	0.20	2.1	170	0.18	2.1	275	0.20	2.1	–	–	–	65	0.16	1.7	–	–	–
SNMG 120412E-FM	**T8330**	1.2	200	0.27	2.1	120	0.24	2.1	190	0.27	2.1	–	–	–	50	0.19	1.7	–	–	–
	T8430	1.2	220	0.27	2.1	120	0.24	2.1	180	0.27	2.1	–	–	–	45	0.19	1.7	–	–	–
	T9315	1.2	300	0.27	2.1	–	–	–	285	0.27	2.1	–	–	–	–	–	–	–	–	–
	T9325	1.2	270	0.27	2.1	160	0.24	2.1	255	0.27	2.1	–	–	–	60	0.19	1.7	–	–	–
SNMG 120416E-FM	**T8330**	1.6	200	0.32	2.1	120	0.29	2.1	190	0.32	2.1	–	–	–	50	0.22	1.7	–	–	–
	T8430	1.6	220	0.32	2.1	120	0.29	2.1	180	0.32	2.1	–	–	–	45	0.22	1.7	–	–	–
	T9325	1.6	260	0.32	2.1	155	0.29	2.1	245	0.32	2.1	–	–	–	55	0.22	1.7	–	–	–
																				
			KR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMG 120408E-KR	**T5305**	0.8	265	0.35	3.8	–	–	–	250	0.35	3.8	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.8	235	0.35	3.8	–	–	–	220	0.35	3.8	–	–	–	–	–	–	45	0.15	1.0
SNMG 120412E-KR	**T5305**	1.2	265	0.40	3.8	–	–	–	250	0.40	3.8	–	–	–	–	–	–	50	0.15	1.0
	T5315	1.2	240	0.40	3.8	–	–	–	225	0.40	3.8	–	–	–	–	–	–	45	0.15	1.0
																				
			M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																	
SNMG 120408E-M	**T5305**	0.8	290	0.32	2.1	–	–	–	275	0.32	2.1	–	–	–	–	–	–	55	0.15	1.0
	T5315	0.8	260	0.32	2.1	–	–	–	245	0.32	2.1	–	–	–	–	–	–	50	0.15	1.0
	T9310	0.8	255	0.32	2.1	–	–	–	240	0.32	2.1	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.8	235	0.32	2.1	–	–	–	220	0.32	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	210	0.32	2.1	–	–	–	195	0.32	2.1	–	–	–	–	–	–	–	–	–
	T9335	0.8	185	0.32	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

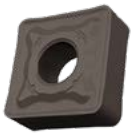
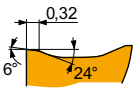
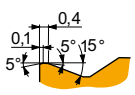
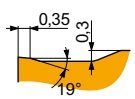
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																				
SNMG 120412E-M	**T9315**	1.2	■ 230	0.40	2.1	–	–	–	◪ 215	0.40	2.1	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	1.2	■ 200	0.40	2.1	–	–	–	◪ 190	0.40	2.1	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 175	0.40	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 120416E-M	**T9325**	1.6	■ 210	0.40	2.1	–	–	–	◪ 195	0.40	2.1	–	–	–	–	–	–	–	–	–
SNMG 150612E-M	**T9315**	1.2	■ 220	0.40	3.4	–	–	–	◪ 205	0.40	3.4	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9325	1.2	■ 195	0.40	3.4	–	–	–	◪ 185	0.40	3.4	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 170	0.40	3.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 190612E-M	**T9315**	1.2	■ 215	0.40	4.0	–	–	–	◪ 200	0.40	4.0	–	–	–	–	–	–	◪ 40	0.15	1.0
	T9325	1.2	■ 190	0.40	4.0	–	–	–	◪ 180	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	■ 165	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 190616E-M	**T9315**	1.6	■ 225	0.40	4.0	–	–	–	◪ 210	0.40	4.0	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	1.6	■ 200	0.40	4.0	–	–	–	◪ 190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	■ 175	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
SNMG 120404E-NF	**T6310**	0.4	■ 185	0.17	1.7	■ 130	0.15	1.7	◪ 145	0.17	1.7	◪ 555	0.20	1.7	◪ 55	0.14	1.4	–	–	–
	T7325	0.4	◪ 210	0.18	1.7	■ 160	0.16	1.7	–	–	–	–	–	–	◪ 65	0.16	1.4	–	–	–
	T7335	0.4	◪ 205	0.18	1.7	■ 155	0.16	1.7	–	–	–	–	–	–	◪ 65	0.16	1.4	–	–	–
	T8330	0.4	■ 185	0.17	1.7	■ 110	0.15	1.7	◪ 175	0.17	1.7	◪ 555	0.20	1.7	◪ 45	0.14	1.4	–	–	–
	T8430	0.4	■ 210	0.17	1.7	■ 115	0.15	1.7	◪ 175	0.17	1.7	◪ 585	0.20	1.7	◪ 45	0.14	1.4	–	–	–
	T9315	0.4	■ 300	0.17	1.7	–	–	–	◪ 285	0.17	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 260	0.18	1.7	■ 155	0.16	1.7	◪ 245	0.18	1.7	–	–	–	◪ 55	0.16	1.4	–	–	–
SNMG 120408E-NF	**HF7**	0.8	–	–	–	◪ 120	0.17	1.7	◪ 190	0.19	1.7	◪ 600	0.23	1.7	–	–	–	–	–	–
	T6310	0.8	■ 210	0.19	1.7	■ 150	0.17	1.7	◪ 165	0.19	1.7	◪ 630	0.23	1.7	◪ 60	0.15	1.4	–	–	–
	T7325	0.8	◪ 245	0.19	1.7	■ 190	0.17	1.7	–	–	–	–	–	–	◪ 75	0.15	1.4	–	–	–
	T7335	0.8	◪ 240	0.19	1.7	■ 185	0.17	1.7	–	–	–	–	–	–	◪ 75	0.15	1.4	–	–	–
	T8315	0.8	◪ 230	0.19	1.7	■ 135	0.17	1.7	◪ 215	0.19	1.7	◪ 690	0.23	1.7	◪ 55	0.15	1.4	–	–	–
	T8330	0.8	■ 210	0.19	1.7	■ 125	0.17	1.7	◪ 195	0.19	1.7	◪ 630	0.23	1.7	◪ 50	0.15	1.4	–	–	–
	T8430	0.8	■ 250	0.19	1.7	■ 135	0.17	1.7	◪ 205	0.19	1.7	◪ 690	0.23	1.7	◪ 50	0.15	1.4	–	–	–
	T9315	0.8	■ 340	0.19	1.7	–	–	–	◪ 320	0.19	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 300	0.19	1.7	■ 180	0.17	1.7	◪ 285	0.19	1.7	–	–	–	◪ 65	0.15	1.4	–	–	–
																				
NM geometry with highly positive design for fine-finish, medium and rough machining, in continuous cuts.																				
SNMG 120408E-NM	**T7325**	0.8	◪ 225	0.25	2.1	■ 175	0.23	2.1	–	–	–	–	–	–	■ 70	0.20	1.7	–	–	–
	T7335	0.8	◪ 220	0.25	2.1	■ 170	0.23	2.1	–	–	–	–	–	–	■ 70	0.20	1.7	–	–	–
	T8315	0.8	◪ 215	0.25	2.1	■ 125	0.23	2.1	–	–	–	◪ 645	0.30	2.1	◪ 50	0.20	1.7	–	–	–
	T8330	0.8	■ 205	0.25	2.1	■ 120	0.23	2.1	–	–	–	◪ 615	0.30	2.1	◪ 50	0.20	1.7	–	–	–
	T8430	0.8	■ 225	0.25	2.1	■ 120	0.23	2.1	–	–	–	◪ 615	0.30	2.1	◪ 45	0.20	1.7	–	–	–
	T9325	0.8	■ 275	0.25	2.1	■ 165	0.23	2.1	–	–	–	–	–	–	◪ 60	0.20	1.7	–	–	–
SNMG 120412E-NM	**T7325**	1.2	◪ 225	0.30	2.1	■ 175	0.27	2.1	–	–	–	–	–	–	■ 70	0.24	1.7	–	–	–
	T7335	1.2	◪ 220	0.30	2.1	■ 170	0.27	2.1	–	–	–	–	–	–	■ 70	0.24	1.7	–	–	–
	T8315	1.2	◪ 215	0.30	2.1	■ 125	0.27	2.1	–	–	–	◪ 645	0.36	2.1	◪ 50	0.24	1.7	–	–	–
	T9325	1.2	■ 270	0.30	2.1	■ 160	0.27	2.1	–	–	–	–	–	–	◪ 60	0.24	1.7	–	–	–

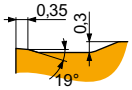
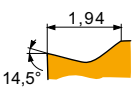
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NMR geometry with positive design for medium to rough machining, and continuous cuts.																				
SNMG 120408E-NMR	**T6310**	0.8	■	155	0.35	2.6	■	110	0.32	2.6	–	–	–	–	–	–	■	45	0.25	2.1	–	–	–
	T7325	0.8	◪	175	0.35	2.6	■	135	0.32	2.6	–	–	–	–	–	–	■	55	0.25	2.1	–	–	–
	T7335	0.8	◪	165	0.35	2.6	■	125	0.32	2.6	–	–	–	–	–	–	■	50	0.25	2.1	–	–	–
	T8330	0.8	■	155	0.35	2.6	■	90	0.32	2.6	–	–	–	–	–	–	◪	35	0.25	2.1	–	–	–
	T8430	0.8	■	165	0.35	2.6	■	90	0.32	2.6	–	–	–	–	–	–	◪	35	0.25	2.1	–	–	–
	T9315	0.8	■	225	0.35	2.6		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
	T9325	0.8	■	200	0.35	2.6	■	120	0.32	2.6	–	–	–	–	–	–	◪	45	0.25	2.1	–	–	–
SNMG 120412E-NMR	**T6310**	1.2	■	160	0.40	2.6	■	115	0.36	2.6	–	–	–	–	–	–	■	45	0.28	2.1	–	–	–
	T7325	1.2	◪	175	0.40	2.6	■	135	0.36	2.6	–	–	–	–	–	–	■	55	0.28	2.1	–	–	–
	T7335	1.2	◪	165	0.40	2.6	■	125	0.36	2.6	–	–	–	–	–	–	■	50	0.28	2.1	–	–	–
	T9315	1.2	■	225	0.40	2.6		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
	T9325	1.2	■	200	0.40	2.6	■	120	0.36	2.6	–	–	–	–	–	–	◪	45	0.28	2.1	–	–	–
SNMG 120416E-NMR	**T7325**	1.6	◪	180	0.45	2.6	■	140	0.41	2.6	–	–	–	–	–	–	■	55	0.32	2.1	–	–	–
	T7335	1.6	◪	170	0.45	2.6	■	130	0.41	2.6	–	–	–	–	–	–	■	55	0.32	2.1	–	–	–
	T9325	1.6	■	200	0.45	2.6	■	120	0.41	2.6	–	–	–	–	–	–	◪	45	0.32	2.1	–	–	–
SNMG 150612E-NMR	**T6310**	1.2	■	150	0.40	3.8	■	105	0.36	3.8	–	–	–	–	–	–	■	45	0.28	3.0	–	–	–
	T7325	1.2	◪	170	0.40	3.8	■	130	0.36	3.8	–	–	–	–	–	–	■	55	0.28	3.0	–	–	–
	T9315	1.2	■	215	0.40	3.8		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
	T9325	1.2	■	190	0.40	3.8	■	110	0.36	3.8	–	–	–	–	–	–	◪	40	0.28	3.0	–	–	–
SNMG 190612E-NMR	**T6310**	1.2	■	145	0.40	5.2	■	100	0.36	5.2	–	–	–	–	–	–	■	40	0.28	4.2	–	–	–
	T7325	1.2	◪	165	0.40	5.2	■	125	0.36	5.2	–	–	–	–	–	–	■	50	0.28	4.2	–	–	–
	T7335	1.2	◪	155	0.40	5.2	■	120	0.36	5.2	–	–	–	–	–	–	■	50	0.28	4.2	–	–	–
	T9315	1.2	■	210	0.40	5.2		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
	T9325	1.2	■	185	0.40	5.2	■	110	0.36	5.2	–	–	–	–	–	–	◪	40	0.28	4.2	–	–	–
SNMG 190616E-NMR	**T6310**	1.6	■	150	0.45	5.2	■	105	0.41	5.2	–	–	–	–	–	–	■	45	0.32	4.2	–	–	–
	T7325	1.6	◪	170	0.45	5.2	■	130	0.41	5.2	–	–	–	–	–	–	■	55	0.32	4.2	–	–	–
	T7335	1.6	◪	155	0.45	5.2	■	120	0.41	5.2	–	–	–	–	–	–	■	50	0.32	4.2	–	–	–
	T9315	1.6	■	205	0.45	5.2		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
	T9325	1.6	■	185	0.45	5.2	■	110	0.41	5.2	–	–	–	–	–	–	◪	40	0.32	4.2	–	–	–
																				
NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																				
SNMG 120408-NRM	**T7325**	0.8	◪	175	0.35	2.6	■	135	0.32	2.6	–	–	–	–	–	–	■	55	0.28	2.1	–	–	–
	T7335	0.8	◪	165	0.35	2.6	■	125	0.32	2.6	–	–	–	–	–	–	■	50	0.28	2.1	–	–	–
	T9315	0.8	■	225	0.35	2.6		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 120412-NRM	**T7325**	1.2	◪	175	0.40	3.0	■	135	0.36	3.0	–	–	–	–	–	–	■	55	0.28	2.4	–	–	–
	T7335	1.2	◪	165	0.40	3.0	■	125	0.36	3.0	–	–	–	–	–	–	■	50	0.28	2.4	–	–	–
	T9315	1.2	■	220	0.40	3.0		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 150612-NRM	**T7325**	1.2	◪	170	0.40	4.0	■	130	0.36	4.0	–	–	–	–	–	–	■	55	0.32	3.2	–	–	–
	T7335	1.2	◪	160	0.40	4.0	■	120	0.36	4.0	–	–	–	–	–	–	■	50	0.32	3.2	–	–	–
	T9315	1.2	■	215	0.40	4.0		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 150616-NRM	**T7325**	1.6	◪	170	0.45	5.0	■	130	0.41	5.0	–	–	–	–	–	–	■	55	0.36	4.0	–	–	–
	T7335	1.6	◪	155	0.45	5.0	■	120	0.41	5.0	–	–	–	–	–	–	■	50	0.36	4.0	–	–	–
	T9315	1.6	■	205	0.45	5.0		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 190612-NRM	**T7325**	1.2	◪	165	0.40	5.2	■	125	0.36	5.2	–	–	–	–	–	–	■	50	0.32	4.2	–	–	–
	T7335	1.2	◪	155	0.40	5.2	■	120	0.36	5.2	–	–	–	–	–	–	■	50	0.32	4.2	–	–	–
	T9315	1.2	■	210	0.40	5.2		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 190616-NRM	**T7325**	1.6	◪	170	0.45	5.2	■	130	0.41	5.2	–	–	–	–	–	–	■	55	0.36	4.2	–	–	–
	T7335	1.6	◪	155	0.45	5.2	■	120	0.41	5.2	–	–	–	–	–	–	■	50	0.36	4.2	–	–	–
	T9315	1.6	■	205	0.45	5.2		–	–	–	–	–	–	–	–	–		–	–	–	–	–	–
SNMG 250724-NRM	**T7325**	2.4	◪	105	0.65	9.0	■	80	0.59	9.0	–	–	–	–	–	–	■	30	0.46	7.2	–	–	–
	T7335	2.4	◪	100	0.65	9.0	■	75	0.59	9.0	–	–	–	–	–	–	■	30	0.46	7.2	–	–	–
	T9315	2.4	■	120	0.65	9.0		–	–	–	◪	110	0.65	9.0	–	–	–	–	–	–	–	–	–

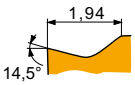
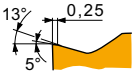
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																	
SNMG 250924-NRM	**T7325**	2.4	105	0.70	9.0	80	0.63	9.0	–	–	–	–	–	–	30	0.49	7.2	–	–	–
	T7335	2.4	95	0.70	9.0	70	0.63	9.0	–	–	–	–	–	–	30	0.49	7.2	–	–	–
	T9315	2.4	120	0.70	9.0	–	–	–	110	0.70	9.0	–	–	–	–	–	–	–	–	–
																				
			R geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMG 120408E-R	**6640**	0.8	145	0.40	3.8	–	–	–	135	0.40	3.8	–	–	–	–	–	–	–	–	–
	T5305	0.8	250	0.40	3.8	–	–	–	235	0.40	3.8	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.8	200	0.40	3.8	–	–	–	190	0.40	3.8	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	180	0.40	3.8	–	–	–	170	0.40	3.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	155	0.40	3.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 120412E-R	**T5305**	1.2	255	0.45	3.8	–	–	–	240	0.45	3.8	–	–	–	–	–	–	50	0.15	1.0
	T9310	1.2	220	0.45	3.8	–	–	–	205	0.45	3.8	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.2	180	0.45	3.8	–	–	–	170	0.45	3.8	–	–	–	–	–	–	–	–	–
	T9335	1.2	160	0.45	3.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 120416E-R	**T9315**	1.6	205	0.50	3.8	–	–	–	190	0.50	3.8	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.6	185	0.50	3.8	–	–	–	175	0.50	3.8	–	–	–	–	–	–	–	–	–
SNMG 150612E-R	**T5305**	1.2	250	0.45	4.5	–	–	–	235	0.45	4.5	–	–	–	–	–	–	50	0.15	1.0
	T5315	1.2	230	0.45	4.5	–	–	–	215	0.45	4.5	–	–	–	–	–	–	45	0.15	1.0
	T9315	1.2	200	0.45	4.5	–	–	–	190	0.45	4.5	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.2	180	0.45	4.5	–	–	–	170	0.45	4.5	–	–	–	–	–	–	–	–	–
SNMG 150616E-R	**T5315**	1.6	230	0.50	4.5	–	–	–	215	0.50	4.5	–	–	–	–	–	–	45	0.15	1.0
	T9325	1.6	180	0.50	4.5	–	–	–	170	0.50	4.5	–	–	–	–	–	–	–	–	–
SNMG 190612E-R	**6640**	1.2	140	0.45	6.0	–	–	–	130	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9310	1.2	210	0.45	6.0	–	–	–	195	0.45	6.0	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	195	0.45	6.0	–	–	–	185	0.45	6.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	175	0.45	6.0	–	–	–	165	0.45	6.0	–	–	–	–	–	–	–	–	–
SNMG 190616E-R	**T9310**	1.6	205	0.50	6.0	–	–	–	190	0.50	6.0	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.6	195	0.50	6.0	–	–	–	185	0.50	6.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.6	175	0.50	6.0	–	–	–	165	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	150	0.50	6.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMG 120408E-RM	**T5305**	0.8	290	0.40	4.0	–	–	–	275	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	260	0.40	4.0	–	–	–	245	0.40	4.0	–	–	–	–	–	–	–	–	–
	T6310	0.8	165	0.40	4.0	115	0.36	4.0	130	0.40	4.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	185	0.40	4.0	140	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	175	0.40	4.0	135	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	175	0.40	4.0	105	0.36	4.0	165	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8330	0.8	165	0.40	4.0	95	0.36	4.0	155	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	175	0.40	4.0	95	0.36	4.0	140	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9310	0.8	250	0.40	4.0	–	–	–	235	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	235	0.40	4.0	–	–	–	220	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	210	0.40	4.0	125	0.36	4.0	195	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	180	0.40	4.0	105	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMG 120412E-RM	**T5305**	1.2	295	0.45	4.0	–	–	–	280	0.45	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	265	0.45	4.0	–	–	–	250	0.45	4.0	–	–	–	–	–	–	–	–	–
	T6310	1.2	165	0.45	4.0	115	0.41	4.0	130	0.45	4.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	190	0.45	4.0	145	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	180	0.45	4.0	140	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.2	250	0.45	4.0	–	–	–	235	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	235	0.45	4.0	–	–	–	220	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	210	0.45	4.0	125	0.41	4.0	195	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	185	0.45	4.0	110	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 120416E-RM	**T5315**	1.6	270	0.50	4.0	–	–	–	255	0.50	4.0	–	–	–	–	–	–	–	–	–
	T7335	1.6	180	0.50	4.0	140	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.6	170	0.50	4.0	100	0.45	4.0	160	0.50	4.0	–	–	–	–	–	–	–	–	–
	T8430	1.6	175	0.50	4.0	95	0.45	4.0	140	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	230	0.50	4.0	–	–	–	215	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	215	0.50	4.0	125	0.45	4.0	200	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	180	0.50	4.0	105	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 150612E-RM	**T5315**	1.2	255	0.45	5.0	–	–	–	240	0.45	5.0	–	–	–	–	–	–	–	–	–
	T6310	1.2	165	0.45	5.0	115	0.41	5.0	130	0.45	5.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	185	0.45	5.0	140	0.41	5.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	175	0.45	5.0	135	0.41	5.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.2	245	0.45	5.0	–	–	–	230	0.45	5.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	225	0.45	5.0	–	–	–	210	0.45	5.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	205	0.45	5.0	120	0.41	5.0	190	0.45	5.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	180	0.45	5.0	105	0.41	5.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 150616E-RM	**T7335**	1.6	175	0.50	5.0	135	0.45	5.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	1.6	230	0.50	5.0	–	–	–	215	0.50	5.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	205	0.50	5.0	120	0.45	5.0	190	0.50	5.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	180	0.50	5.0	105	0.45	5.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 190612E-RM	**T5305**	1.2	275	0.45	7.0	–	–	–	260	0.45	7.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	250	0.45	7.0	–	–	–	235	0.45	7.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	180	0.45	7.0	140	0.41	7.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	165	0.45	7.0	125	0.41	7.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.2	240	0.45	7.0	–	–	–	225	0.45	7.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	220	0.45	7.0	–	–	–	205	0.45	7.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.45	7.0	115	0.41	7.0	185	0.45	7.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	175	0.45	7.0	105	0.41	7.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 190616E-RM	**T5305**	1.6	285	0.50	7.0	–	–	–	270	0.50	7.0	–	–	–	–	–	–	–	–	–
	T5315	1.6	250	0.50	7.0	–	–	–	235	0.50	7.0	–	–	–	–	–	–	–	–	–
	T6310	1.6	160	0.50	7.0	115	0.45	7.0	125	0.50	7.0	–	–	–	–	–	–	–	–	–
	T7335	1.6	170	0.50	7.0	130	0.45	7.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	1.6	240	0.50	7.0	–	–	–	225	0.50	7.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	220	0.50	7.0	–	–	–	205	0.50	7.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	200	0.50	7.0	120	0.45	7.0	190	0.50	7.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	175	0.50	7.0	105	0.45	7.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMG 250924E-RM	**T7325**	2.4	110	0.80	12.0	85	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	2.4	105	0.80	12.0	80	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9226	2.4	95	0.80	12.0	55	0.72	12.0	90	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	125	0.80	12.0	–	–	–	115	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	110	0.80	12.0	65	0.72	12.0	100	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	90	0.80	12.0	50	0.72	12.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																	
SNMG 120404E-SF	**T7325**	0.4	215	0.17	1.0	165	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T9325	0.4	265	0.17	1.0	155	0.15	1.0	250	0.17	1.0	–	–	–	55	0.15	0.8	–	–	–

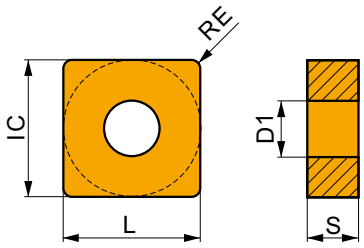
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																	
SNMG 120408E-SF	**H07**	0.8	–	–	–	105	0.18	1.0	165	0.20	1.0	525	0.24	1.0	50	0.14	0.8	–	–	–
	T6310	0.8	210	0.20	1.0	150	0.18	1.0	165	0.20	1.0	630	0.24	1.0	60	0.14	0.8	40	0.15	1.0
	T7325	0.8	245	0.20	1.0	190	0.18	1.0	–	–	–	–	–	–	75	0.16	0.8	–	–	–
	T7335	0.8	235	0.20	1.0	180	0.18	1.0	–	–	–	–	–	–	75	0.16	0.8	–	–	–
	T8315	0.8	225	0.20	1.0	135	0.18	1.0	210	0.20	1.0	675	0.24	1.0	55	0.14	0.8	45	0.15	1.0
	T8330	0.8	210	0.20	1.0	125	0.18	1.0	195	0.20	1.0	630	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8430	0.8	245	0.20	1.0	135	0.18	1.0	200	0.20	1.0	675	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T9325	0.8	295	0.20	1.0	175	0.18	1.0	280	0.20	1.0	–	–	–	65	0.16	0.8	–	–	–
SNMG 120412E-SF	**T6310**	1.2	200	0.25	1.5	140	0.23	1.5	160	0.25	1.5	600	0.30	1.5	60	0.18	1.2	40	0.15	1.0
	T7325	1.2	230	0.25	1.5	175	0.23	1.5	–	–	–	–	–	–	70	0.18	1.2	–	–	–
	T8330	1.2	200	0.25	1.5	120	0.23	1.5	190	0.25	1.5	600	0.30	1.5	50	0.18	1.2	40	0.15	1.0
	T8430	1.2	225	0.25	1.5	120	0.23	1.5	185	0.25	1.5	615	0.30	1.5	45	0.18	1.2	35	0.15	1.0
																				
			SM geometry with positive design for medium machining and continuous to interrupted cuts.																	
SNMG 120408E-SM	**T6310**	0.8	185	0.25	1.8	130	0.23	1.8	145	0.25	1.8	555	0.30	1.8	55	0.20	1.4	35	0.15	1.0
	T7325	0.8	210	0.25	1.8	160	0.23	1.8	–	–	–	–	–	–	65	0.20	1.4	–	–	–
	T7335	0.8	205	0.25	1.8	155	0.23	1.8	–	–	–	–	–	–	65	0.20	1.4	–	–	–
	T8330	0.8	185	0.25	1.8	110	0.23	1.8	175	0.25	1.8	555	0.30	1.8	45	0.20	1.4	35	0.15	1.0
	T8430	0.8	205	0.25	1.8	110	0.23	1.8	170	0.25	1.8	570	0.30	1.8	45	0.20	1.4	35	0.15	1.0
	T9315	0.8	280	0.25	1.8	–	–	–	265	0.25	1.8	–	–	–	–	–	–	55	0.15	1.0
	T9325	0.8	255	0.25	1.8	150	0.23	1.8	240	0.25	1.8	–	–	–	55	0.20	1.4	–	–	–
SNMG 120412E-SM	**T7325**	1.2	210	0.30	1.8	160	0.27	1.8	–	–	–	–	–	–	65	0.24	1.4	–	–	–
	T7335	1.2	200	0.30	1.8	155	0.27	1.8	–	–	–	–	–	–	65	0.24	1.4	–	–	–
	T9315	1.2	275	0.30	1.8	–	–	–	260	0.30	1.8	–	–	–	–	–	–	55	0.15	1.0
	T9325	1.2	245	0.30	1.8	145	0.27	1.8	230	0.30	1.8	–	–	–	55	0.24	1.4	–	–	–
SNMG 190612E-SM	**T6310**	1.2	175	0.30	4.0	125	0.27	4.0	140	0.30	4.0	525	0.36	4.0	50	0.27	3.2	35	0.15	1.0
	T7325	1.2	195	0.30	4.0	150	0.27	4.0	–	–	–	–	–	–	60	0.27	3.2	–	–	–
	T7335	1.2	185	0.30	4.0	140	0.27	4.0	–	–	–	–	–	–	60	0.27	3.2	–	–	–
	T9325	1.2	230	0.30	4.0	135	0.27	4.0	215	0.30	4.0	–	–	–	50	0.27	3.2	–	–	–
SNMG 190616E-SM	**T7325**	1.6	190	0.40	4.0	145	0.36	4.0	–	–	–	–	–	–	60	0.32	3.2	–	–	–
	T7335	1.6	175	0.40	4.0	135	0.36	4.0	–	–	–	–	–	–	55	0.32	3.2	–	–	–
	T9325	1.6	210	0.40	4.0	125	0.36	4.0	195	0.40	4.0	–	–	–	45	0.32	3.2	–	–	–

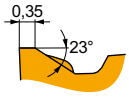
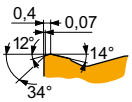
SNMM

PRAMET

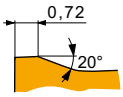
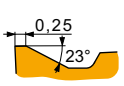
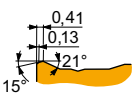
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.70	4.76
1506	15.875	6.35	15.875	6.35
1906	19.050	7.94	19.05	6.35
2507	25.400	9.12	25.40	7.94
2509	25.400	9.12	25.40	9.525



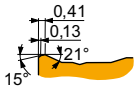
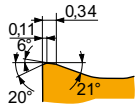
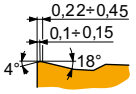
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			DR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMM 120412E-DR	**T9315**	1.2	245	0.45	4.7	–	–	–	230	0.45	4.7	–	–	–	–	–	–	–	–	–
	T9325	1.2	220	0.45	4.7	130	0.41	4.7	205	0.45	4.7	–	–	–	–	–	–	–	–	–
	T9335	1.2	185	0.45	4.7	110	0.41	4.7	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 150612E-DR	**T9325**	1.2	210	0.45	6.0	125	0.41	6.0	195	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	180	0.45	6.0	105	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 190612E-DR	**6640**	1.2	170	0.45	6.0	100	0.41	6.0	160	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	210	0.45	6.0	125	0.41	6.0	195	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	180	0.45	6.0	105	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 190616E-DR	**T9325**	1.6	210	0.50	6.0	125	0.45	6.0	195	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	185	0.50	6.0	110	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			HR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																	
SNMM 190616E-HR	**T8345**	1.6	60	0.60	9.0	35	0.54	9.0	55	0.60	9.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	110	0.60	9.0	65	0.54	9.0	100	0.60	9.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	85	0.60	9.0	50	0.54	9.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 190624E-HR	**T8345**	2.4	60	0.65	9.0	35	0.59	9.0	55	0.65	9.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	120	0.65	9.0	–	–	–	110	0.65	9.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	115	0.65	9.0	65	0.59	9.0	105	0.65	9.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	90	0.65	9.0	50	0.59	9.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250716E-HR	**T8345**	1.6	60	0.60	13.0	35	0.54	13.0	55	0.60	13.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	100	0.60	13.0	60	0.54	13.0	95	0.60	13.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	85	0.60	13.0	50	0.54	13.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250724E-HR	**6640**	2.4	80	0.65	13.0	45	0.59	13.0	75	0.65	13.0	–	–	–	–	–	–	–	–	–
	T8345	2.4	55	0.65	13.0	30	0.59	13.0	50	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	120	0.65	13.0	–	–	–	110	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	105	0.65	13.0	60	0.59	13.0	95	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	85	0.65	13.0	50	0.59	13.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250732E-HR	**T9325**	3.2	95	0.80	13.0	55	0.72	13.0	90	0.80	13.0	–	–	–	–	–	–	–	–	–
SNMM 250924E-HR	**T8345**	2.4	55	0.65	13.0	30	0.59	13.0	50	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	120	0.65	13.0	–	–	–	110	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	105	0.65	13.0	60	0.59	13.0	95	0.65	13.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	85	0.65	13.0	50	0.59	13.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250932E-HR	**T9325**	3.2	95	0.80	13.0	55	0.72	13.0	90	0.80	13.0	–	–	–	–	–	–	–	–	–

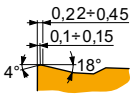
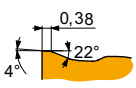
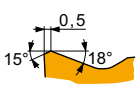
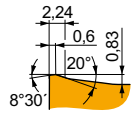
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
HR2 geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																				
SNMM 190616-HR2	**T9315**	1.6	115	0.65	8.9	–	–	–	105	0.65	8.9	–	–	–	–	–	–	–	–	–
	T9335	1.6	85	0.65	8.9	50	0.59	8.9	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 190624-HR2	**T9315**	2.4	105	0.85	8.9	–	–	–	95	0.85	8.9	–	–	–	–	–	–	–	–	–
	T9335	2.4	80	0.85	8.9	45	0.77	8.9	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250724-HR2	**T9226**	2.4	85	0.85	11.0	50	0.77	11.0	80	0.85	11.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	105	0.85	11.0	–	–	–	95	0.85	11.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	80	0.85	11.0	45	0.77	11.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250732-HR2	**T9315**	3.2	95	1.00	11.0	–	–	–	90	1.00	11.0	–	–	–	–	–	–	–	–	–
SNMM 250924-HR2	**T9226**	2.4	85	0.85	11.0	50	0.77	11.0	80	0.85	11.0	–	–	–	–	–	–	–	–	–
	T9315	2.4	105	0.85	11.0	–	–	–	95	0.85	11.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	80	0.85	11.0	45	0.77	11.0	–	–	–	–	–	–	–	–	–	–	–	–
SNMM 250932-HR2	**T9315**	3.2	95	1.00	11.0	–	–	–	90	1.00	11.0	–	–	–	–	–	–	–	–	–
	T9335	3.2	75	1.00	11.0	45	0.90	11.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
NR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
SNMM 120408E-NR	**T7325**	0.8	185	0.40	3.0	140	0.36	3.0	–	–	–	–	–	–	60	0.28	2.4	–	–	–
	T7335	0.8	175	0.40	3.0	135	0.36	3.0	–	–	–	–	–	–	55	0.28	2.4	–	–	–
	T8330	0.8	160	0.40	3.0	95	0.36	3.0	150	0.40	3.0	–	–	–	40	0.28	2.4	–	–	–
	T8430	0.8	170	0.40	3.0	90	0.36	3.0	135	0.40	3.0	–	–	–	35	0.28	2.4	–	–	–
	T9325	0.8	205	0.40	3.0	120	0.36	3.0	190	0.40	3.0	–	–	–	45	0.28	2.4	–	–	–
																				
NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
SNMM 120408E-NR2	**T7325**	0.8	175	0.40	4.7	135	0.36	4.7	–	–	–	–	–	–	55	0.32	3.8	–	–	–
	T7335	0.8	170	0.40	4.7	130	0.36	4.7	–	–	–	–	–	–	55	0.32	3.8	–	–	–
	T8330	0.8	155	0.40	4.7	90	0.36	4.7	145	0.40	4.7	–	–	–	35	0.32	3.8	–	–	–
	T8430	0.8	165	0.40	4.7	90	0.36	4.7	135	0.40	4.7	–	–	–	35	0.32	3.8	–	–	–
	T9325	0.8	195	0.40	4.7	115	0.36	4.7	185	0.40	4.7	–	–	–	40	0.32	3.8	–	–	–
SNMM 120412E-NR2	**T7335**	1.2	165	0.45	4.7	125	0.41	4.7	–	–	–	–	–	–	50	0.36	3.8	–	–	–
	T8330	1.2	160	0.45	4.7	95	0.41	4.7	150	0.45	4.7	–	–	–	40	0.36	3.8	–	–	–
	T8430	1.2	165	0.45	4.7	90	0.41	4.7	135	0.45	4.7	–	–	–	35	0.36	3.8	–	–	–
	T9325	1.2	200	0.45	4.7	120	0.41	4.7	190	0.45	4.7	–	–	–	45	0.36	3.8	–	–	–
SNMM 150612E-NR2	**T7325**	1.2	170	0.45	6.0	130	0.41	6.0	–	–	–	–	–	–	55	0.36	4.8	–	–	–
	T7335	1.2	165	0.45	6.0	125	0.41	6.0	–	–	–	–	–	–	50	0.36	4.8	–	–	–
	T8330	1.2	155	0.45	6.0	90	0.41	6.0	145	0.45	6.0	–	–	–	35	0.36	4.8	–	–	–
	T8430	1.2	165	0.45	6.0	90	0.41	6.0	135	0.45	6.0	–	–	–	35	0.36	4.8	–	–	–
	T9325	1.2	195	0.45	6.0	115	0.41	6.0	185	0.45	6.0	–	–	–	40	0.36	4.8	–	–	–
SNMM 150616E-NR2	**T7335**	1.6	165	0.50	6.0	125	0.45	6.0	–	–	–	–	–	–	50	0.40	4.8	–	–	–
	T9325	1.6	190	0.50	6.0	110	0.45	6.0	180	0.50	6.0	–	–	–	40	0.40	4.8	–	–	–
SNMM 190612E-NR2	**T7335**	1.2	160	0.45	8.0	120	0.41	8.0	–	–	–	–	–	–	50	0.36	6.4	–	–	–
	T9325	1.2	190	0.45	8.0	110	0.41	8.0	180	0.45	8.0	–	–	–	40	0.36	6.4	–	–	–
SNMM 190616E-NR2	**T7325**	1.6	175	0.50	8.0	135	0.45	8.0	–	–	–	–	–	–	55	0.40	6.4	–	–	–
	T7335	1.6	160	0.50	8.0	120	0.45	8.0	–	–	–	–	–	–	50	0.40	6.4	–	–	–
	T8330	1.6	155	0.50	8.0	90	0.45	8.0	145	0.50	8.0	–	–	–	35	0.40	6.4	–	–	–
	T8430	1.6	155	0.50	8.0	85	0.45	8.0	130	0.50	8.0	–	–	–	30	0.40	6.4	–	–	–
	T9315	1.6	210	0.50	8.0	–	–	–	195	0.50	8.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	185	0.50	8.0	110	0.45	8.0	175	0.50	8.0	–	–	–	40	0.40	6.4	–	–	–
SNMM 190624E-NR2	**T7325**	2.4	155	0.80	8.0	120	0.72	8.0	–	–	–	–	–	–	50	0.56	6.4	–	–	–
	T7335	2.4	145	0.80	8.0	110	0.72	8.0	–	–	–	–	–	–	45	0.56	6.4	–	–	–
	T9325	2.4	165	0.80	8.0	95	0.72	8.0	155	0.80	8.0	–	–	–	35	0.56	6.4	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMM 250724E-NR2	**T7335**	2.4	◪ 100	0.80	12.0	■ 75	0.72	12.0		–	–	–	–	–	–	◪ 30	0.56	9.6	–	–	–
	T8330	2.4	■ 85	0.80	12.0	■ 50	0.72	12.0	◪ 80	0.80	12.0	–	–	–	◪ 20	0.56	9.6	–	–	–
	T8430	2.4	■ 85	0.80	12.0	■ 45	0.72	12.0	◪ 70	0.80	12.0	–	–	–	◪ 15	0.56	9.6	–	–	–
	T9226	2.4	■ 95	0.80	12.0	■ 55	0.72	12.0	◪ 90	0.80	12.0	–	–	–	◪ 20	0.56	9.6	–	–	–
	T9315	2.4	■ 120	0.80	12.0	–	–	–	◪ 110	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	■ 105	0.80	12.0	■ 60	0.72	12.0	◪ 95	0.80	12.0	–	–	–	◪ 20	0.56	9.6	–	–	–
SNMM 250924E-NR2	**T7325**	2.4	◪ 105	0.80	12.0	■ 80	0.72	12.0		–	–	–	–	–	–	◪ 30	0.56	9.6	–	–	–
	T7335	2.4	◪ 100	0.80	12.0	■ 75	0.72	12.0		–	–	–	–	–	–	◪ 30	0.56	9.6	–	–	–
	T9226	2.4	■ 95	0.80	12.0	■ 55	0.72	12.0	◪ 90	0.80	12.0	–	–	–	◪ 20	0.56	9.6	–	–	–
	T9315	2.4	■ 120	0.80	12.0	–	–	–	◪ 110	0.80	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	■ 105	0.80	12.0	■ 60	0.72	12.0	◪ 95	0.80	12.0	–	–	–	◪ 20	0.56	9.6	–	–	–
			NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																	
SNMM 250716-NRM	**T7325**	1.6	◪ 115	0.45	9.0	■ 85	0.41	9.0		–	–	–	–	–	–	■ 35	0.36	7.2	–	–	–
	T7335	1.6	◪ 110	0.45	9.0	■ 85	0.41	9.0		–	–	–	–	–	–	■ 35	0.36	7.2	–	–	–
	T9315	1.6	■ 135	0.45	9.0	–	–	–	◪ 125	0.45	9.0	–	–	–	–	–	–	–	–	–
SNMM 250724-NRM	**T7325**	2.4	◪ 105	0.65	9.0	■ 80	0.59	9.0		–	–	–	–	–	–	■ 30	0.46	7.2	–	–	–
	T7335	2.4	◪ 100	0.65	9.0	■ 75	0.59	9.0		–	–	–	–	–	–	■ 30	0.46	7.2	–	–	–
	T9315	2.4	■ 120	0.65	9.0	–	–	–	◪ 110	0.65	9.0	–	–	–	–	–	–	–	–	–
SNMM 250924-NRM	**T7325**	2.4	◪ 105	0.70	9.0	■ 80	0.63	9.0		–	–	–	–	–	–	■ 30	0.49	7.2	–	–	–
	T7335	2.4	◪ 95	0.70	9.0	■ 70	0.63	9.0		–	–	–	–	–	–	■ 30	0.49	7.2	–	–	–
	T9315	2.4	■ 120	0.70	9.0	–	–	–	◪ 110	0.70	9.0	–	–	–	–	–	–	–	–	–
			OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMM 120408E-OR	**T9315**	0.8	■ 220	0.40	4.7	–	–	–	◪ 205	0.40	4.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 195	0.40	4.7	◪ 115	0.36	4.7	◪ 185	0.40	4.7	–	–	–	◪ 40	0.32	3.8	–	–	–
	T9335	0.8	■ 175	0.40	4.7	◪ 105	0.36	4.7	–	–	–	–	–	–	◪ 35	0.32	3.8	–	–	–
SNMM 120412E-OR	**T9315**	1.2	■ 225	0.45	4.7	–	–	–	◪ 210	0.45	4.7	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 200	0.45	4.7	◪ 120	0.41	4.7	◪ 190	0.45	4.7	–	–	–	◪ 45	0.36	3.8	–	–	–
SNMM 120416E-OR	**T9325**	1.6	■ 200	0.50	4.7	◪ 120	0.45	4.7	◪ 190	0.50	4.7	–	–	–	◪ 45	0.40	3.8	–	–	–
SNMM 150608E-OR	**T9325**	0.8	■ 185	0.45	6.0	◪ 110	0.41	6.0	◪ 175	0.45	6.0	–	–	–	◪ 40	0.41	4.8	–	–	–
	T9335	0.8	■ 170	0.40	6.0	◪ 100	0.36	6.0	–	–	–	–	–	–	◪ 35	0.36	4.8	–	–	–
SNMM 150612E-OR	**T9325**	1.2	■ 195	0.45	6.0	◪ 115	0.41	6.0	◪ 185	0.45	6.0	–	–	–	◪ 40	0.36	4.8	–	–	–
	T9335	1.2	■ 165	0.45	6.0	◪ 95	0.41	6.0	–	–	–	–	–	–	◪ 35	0.36	4.8	–	–	–
SNMM 150616E-OR	**T9315**	1.6	■ 215	0.50	6.0	–	–	–	◪ 200	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	■ 190	0.50	6.0	◪ 110	0.45	6.0	◪ 180	0.50	6.0	–	–	–	◪ 40	0.40	4.8	–	–	–
SNMM 190612E-OR	**T8330**	1.2	■ 150	0.45	8.0	◪ 90	0.41	8.0	■ 140	0.45	8.0	–	–	–	◪ 35	0.36	6.4	–	–	–
	T8430	1.2	■ 150	0.45	8.0	◪ 80	0.41	8.0	◪ 125	0.45	8.0	–	–	–	◪ 30	0.36	6.4	–	–	–
	T9315	1.2	■ 210	0.45	8.0	–	–	–	◪ 195	0.45	8.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	■ 190	0.45	8.0	◪ 110	0.41	8.0	◪ 180	0.45	8.0	–	–	–	◪ 40	0.36	6.4	–	–	–
	T9335	1.2	■ 165	0.45	8.0	◪ 95	0.41	8.0	–	–	–	–	–	–	◪ 35	0.36	6.4	–	–	–
SNMM 190616E-OR	**T8330**	1.6	■ 155	0.50	8.0	◪ 90	0.45	8.0	■ 145	0.50	8.0	–	–	–	◪ 35	0.40	6.4	–	–	–
	T8345	1.6	■ 125	0.50	8.0	◪ 75	0.45	8.0	◪ 115	0.50	8.0	–	–	–	◪ 30	0.40	6.4	–	–	–
	T8430	1.6	■ 155	0.50	8.0	◪ 85	0.45	8.0	◪ 130	0.50	8.0	–	–	–	◪ 30	0.40	6.4	–	–	–
	T9315	1.6	■ 210	0.50	8.0	–	–	–	◪ 195	0.50	8.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	■ 185	0.50	8.0	◪ 110	0.45	8.0	◪ 175	0.50	8.0	–	–	–	◪ 40	0.40	6.4	–	–	–
	T9335	1.6	■ 160	0.50	8.0	◪ 95	0.45	8.0	–	–	–	–	–	–	◪ 35	0.40	6.4	–	–	–
SNMM 190624E-OR	**T9315**	2.4	■ 180	0.80	8.0	–	–	–	◪ 170	0.80	8.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	■ 165	0.80	8.0	◪ 95	0.72	8.0	◪ 155	0.80	8.0	–	–	–	◪ 35	0.56	6.4	–	–	–
SNMM 250716E-OR	**T9226**	1.6	■ 115	0.50	12.0	◪ 65	0.45	12.0	◪ 105	0.50	12.0	–	–	–	◪ 20	0.45	9.6	–	–	–
	T9325	1.6	■ 120	0.55	12.0	◪ 70	0.50	12.0	◪ 110	0.55	12.0	–	–	–	◪ 25	0.50	9.6	–	–	–

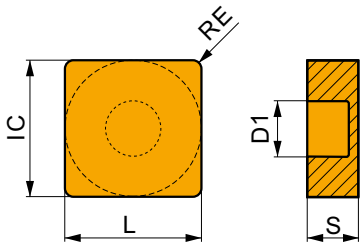
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
SNMM 250724E-OR	**T8330**	2.4	80	1.00	12.0	45	0.90	12.0	75	1.00	12.0	–	–	–	20	0.70	9.6	–	–	–
	T8345	2.4	55	1.00	12.0	30	0.90	12.0	50	1.00	12.0	–	–	–	10	0.70	9.6	–	–	–
	T8430	2.4	80	1.00	12.0	45	0.90	12.0	65	1.00	12.0	–	–	–	15	0.70	9.6	–	–	–
	T9315	2.4	105	1.00	12.0	–	–	–	95	1.00	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	100	1.00	12.0	60	0.90	12.0	95	1.00	12.0	–	–	–	20	0.70	9.6	–	–	–
	T9335	2.4	80	1.00	12.0	45	0.90	12.0	–	–	–	–	–	–	15	0.70	9.6	–	–	–
SNMM 250924E-OR	**T8430**	2.4	80	1.00	12.0	45	0.90	12.0	65	1.00	12.0	–	–	–	15	0.70	9.6	–	–	–
	T9226	2.4	85	1.00	12.0	50	0.90	12.0	80	1.00	12.0	–	–	–	15	0.70	9.6	–	–	–
	T9315	2.4	105	1.00	12.0	–	–	–	95	1.00	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	100	1.00	12.0	60	0.90	12.0	95	1.00	12.0	–	–	–	20	0.70	9.6	–	–	–
	T9335	2.4	80	1.00	12.0	45	0.90	12.0	–	–	–	–	–	–	15	0.70	9.6	–	–	–
			OR1 geometry for semi-rough to heavy-rough machining, and continuous to interrupted cuts.																	
SNMM 190616E-OR1	**T9325**	1.6	185	0.50	8.0	110	0.45	8.0	175	0.50	8.0	–	–	–	40	0.35	6.4	–	–	–
	T9335	1.6	160	0.50	8.0	95	0.45	8.0	–	–	–	–	–	–	35	0.35	6.4	–	–	–
			SR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																	
SNMM 250724S-SR	**6640**	2.4	60	1.00	12.0	35	0.90	12.0	55	1.00	12.0	–	–	–	–	–	–	–	–	–
	T9226	2.4	70	1.00	12.0	40	0.90	12.0	65	1.00	12.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	80	1.00	12.0	45	0.90	12.0	75	1.00	12.0	–	–	–	–	–	–	–	–	–
SNMM 250924S-SR	**T9335**	2.4	65	1.00	14.0	35	0.90	14.0	–	–	–	–	–	–	–	–	–	–	–	–
			Geometry 923 for semi-rough to heavy-rough machining, and continuous to heavy interrupted cuts.																	
SNMM 190616S-923	**T8330**	1.6	125	0.65	8.9	75	0.59	8.9	115	0.65	8.9	–	–	–	30	0.52	7.1	–	–	–
	T8345	1.6	100	0.65	8.9	60	0.59	8.9	95	0.65	8.9	–	–	–	25	0.52	7.1	–	–	–
	T8430	1.6	125	0.65	8.9	65	0.59	8.9	100	0.65	8.9	–	–	–	25	0.52	7.1	–	–	–
	T9335	1.6	130	0.65	8.9	75	0.59	8.9	–	–	–	–	–	–	25	0.52	7.1	–	–	–
SNMM 250724S-923	**T8330**	2.4	80	0.85	11.0	45	0.77	11.0	75	0.85	11.0	–	–	–	20	0.60	8.8	–	–	–
	T8430	2.4	80	0.85	11.0	45	0.77	11.0	65	0.85	11.0	–	–	–	15	0.60	8.8	–	–	–
	T9335	2.4	80	0.85	11.0	45	0.77	11.0	–	–	–	–	–	–	15	0.60	8.8	–	–	–
SNMM 250924S-923	**T8345**	2.4	55	0.85	11.0	30	0.77	11.0	50	0.85	11.0	–	–	–	10	0.60	8.8	–	–	–
	T8430	2.4	80	0.85	11.0	45	0.77	11.0	65	0.85	11.0	–	–	–	15	0.60	8.8	–	–	–
	T9226	2.4	85	0.85	11.0	50	0.77	11.0	80	0.85	11.0	–	–	–	15	0.60	8.8	–	–	–
	T9315	2.4	105	0.85	11.0	–	–	–	95	0.85	11.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	80	0.85	11.0	45	0.77	11.0	–	–	–	–	–	–	15	0.60	8.8	–	–	–
SNMM 250932S-923	**T9226**	3.2	80	1.00	11.0	45	0.90	11.0	75	1.00	11.0	–	–	–	15	0.70	8.8	–	–	–

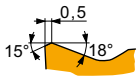
SNMX

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
2512	25.400	9.17	25.40	12.00



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

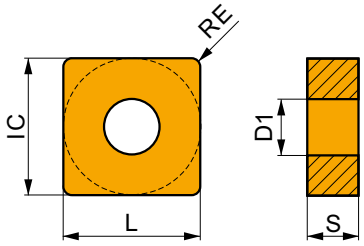
Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
SNMX 251224S-SR	T8345	2.4	45	1.00	14.0	25	0.90	14.0	40	1.00	14.0	–	–	–	–	–	–	–	–	–
	T9325	2.4	80	1.00	14.0	45	0.90	14.0	75	1.00	14.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	65	1.00	14.0	35	0.90	14.0	–	–	–	–	–	–	–	–	–	–	–	–

SR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.

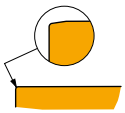
SNGA CER

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1204	12.700	5.16	12.70	4.76



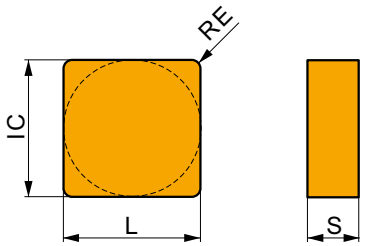
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
SNGA 120408 T01025	TC100	0.8	–	–	–	–	–	–	575	0.20	2.0	–	–	–	–	–	–	–	–	–
SNGA 120412 T01020	TC100	1.2	–	–	–	–	–	–	565	0.25	2.0	–	–	–	–	–	–	–	–	–

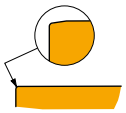
For machining with high speeds and continuous cuts.

SNGN CER

	IC [mm]	L [mm]	S [mm]
0903	9.525	9.525	3.18
1204	12.700	12.70	4.76
1207	12.700	12.70	7.94



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC		T															
			For machining with high speeds and continuous cuts.																	
SNGN 090308 T01020	**TC100**	0.8	–	–	–	–	–	–	☑ 580	0.20	1.8	–	–	–	–	–	–	–	–	–
SNGN 090312 T01020	**TC100**	1.2	–	–	–	–	–	–	☑ 565	0.25	1.8	–	–	–	–	–	–	–	–	–
SNGN 120404 T01020	**TC100**	0.4	–	–	–	–	–	–	☑ 620	0.10	2.0	–	–	–	–	–	–	–	–	–
SNGN 120408 T01020	**TC100**	0.8	–	–	–	–	–	–	☑ 575	0.20	2.0	–	–	–	–	–	–	–	–	–
SNGN 120708 T01020	**TC100**	0.8	–	–	–	–	–	–	☑ 575	0.20	2.0	–	–	–	–	–	–	–	–	–
SNGN 120712 T01020	**TC100**	1.2	–	–	–	–	–	–	☑ 565	0.25	2.0	–	–	–	–	–	–	–	–	–

DSBN(RL) EXT

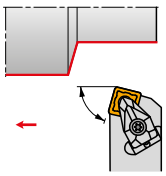
P M K N S H

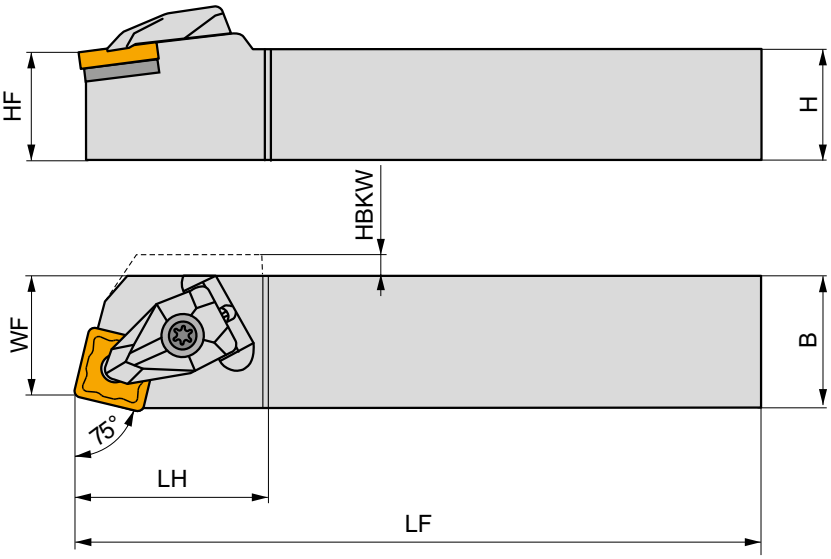
PRAMET

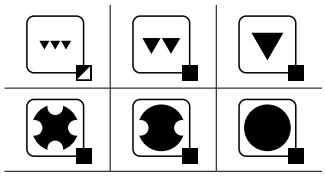
D

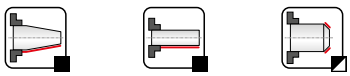
External Double Clamp Holder with 75° Cutting Angle for SN.. Insert

External Right/Left hand double clamp tool holder with 75° cutting angle. Suited for longitudinal turning without shoulder, taper and chamfer turning with negative SN.. 12, 15 or 19 size inserts. Available in 20x20 up to 40x40 mm shanks. Body treated for longer tool life.









	Product	H	B	HF	WF	LF	LH	HBKW	LAMS	GAMO	kg			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[°]				
R	**DSBNR 2020 K 12**	20	20	20	17	125	34.2	2.5	-6	-6	0.43	GI029	DS12	AT003
	DSBNR 2525 M 12	25	25	25	22	150	34.3	–	-6	-6	0.74	GI029	DS12	AT003
	DSBNR 2525 M 15	25	25	25	22	150	41.6	2	-6	-6	0.80	GI082	DS15	AT006
	DSBNR 3225 P 15	32	25	32	22	170	41.7	2	-6	-6	1.07	GI082	DS15	AT006
	DSBNR 3232 P 19	32	32	32	27	170	46.4	–	-6	-6	1.38	GI026	DS19	–
	DSBNR 4040 S 19	40	40	40	35	250	46.5	–	-6	-6	3.18	GI026	DS19	–
L	**DSBNL 2525 M 12**	25	25	25	22	150	34.3	–	-6	-6	0.74	GI029	DS12	AT003
	DSBNL 2525 M 15	25	25	25	22	150	41.6	2	-6	-6	0.80	GI082	DS15	AT006
	DSBNL 3225 P 15	32	25	32	22	170	41.7	2	-6	-6	1.16	GI082	DS15	AT006
	DSBNL 3232 P 19	32	32	32	27	170	46.4	–	-6	-6	1.38	GI026	DS19	–
	DSBNL 4040 S 19	40	40	40	35	250	46.5	–	-6	-6	3.18	GI026	DS19	–

GI026	SN.. 1906..
GI029	SN.. 1204..
GI082	SN.. 1506..

		Nm				
DS12	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–
DS15	DCS 16	6.4	DSS 425-03	US 2007-T20P	–	LK T20P
DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P

			
AT003a	SN.. 1207..	–	DSS 425-02
AT006a	SN.. 1507..	–	DSS 425-05
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–
AT006b	CER CN.N 1606..	DCS 16C4	–
AT006c	CER CN.A 1606..	DCS 16C2	–

DSDNN EXT

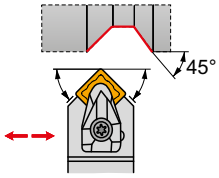
P M K N S H

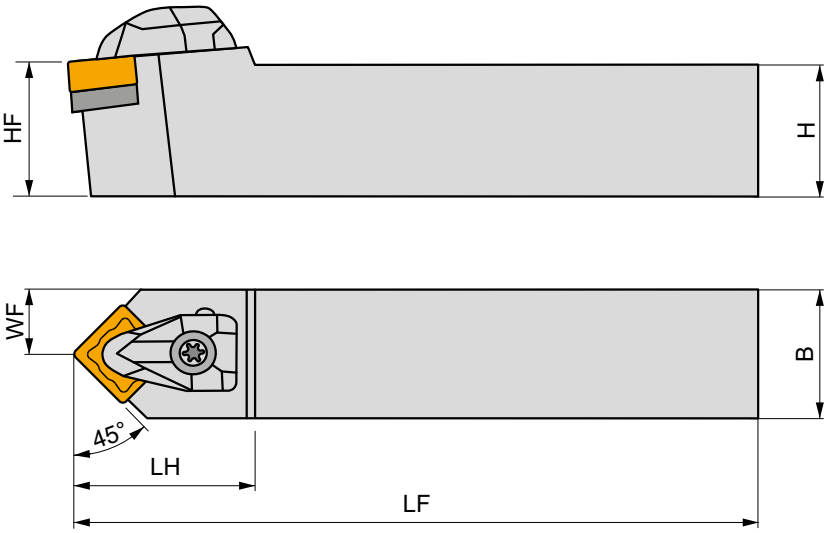
PRAMET

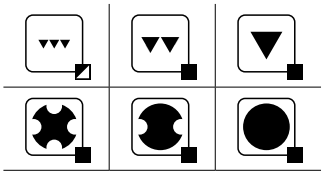
D

External Double Clamp Holder with 45° Cutting Angle for SN.. Insert

External neutral double clamp tool holder with 45° cutting angle. Suited for longitudinal turning without shoulder, copy, taper and chamfer turning with negative SN.. 12, 15, 19 or 25 size inserts. Available in 25x25 up to 40x40 mm shanks. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg			
N	**DSDNN 2525 M 12**	25	25	25	12.8	150	36.5	-6	-6	0.74	GI029	DS12	AT003
	DSDNN 2525 M 15	25	25	25	12.8	150	44.8	-6	-6	0.76	GI082	DS15	AT006
	DSDNN 3232 P 19	32	32	32	16.5	170	49.5	-6	-6	1.36	GI026	DS19	–
	DSDNN 4040 S 25	40	40	40	21	250	57.2	-6	-6	3.13	GI027	DS25	–

GI026	SN.. 1906..
GI027	SN.. 2507..
GI029	SN.. 1204..
GI082	SN.. 1506..

		Nm				
DS12	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–
DS15	DCS 16	6.4	DSS 425-03	US 2007-T20P	–	LK T20P
DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P
DS25	DCS 25	9.5	DSS 425-07	US 2008-T25P	–	LK T25P

AT003a	SN.. 1207..	–	DSS 425-02
AT006a	SN.. 1507..	–	DSS 425-05
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–
AT006b	CER CN.N 1606..	DCS 16C4	–
AT006c	CER CN.A 1606..	DCS 16C2	–

DSKN(RL) EXT

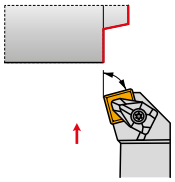
P M K N S H

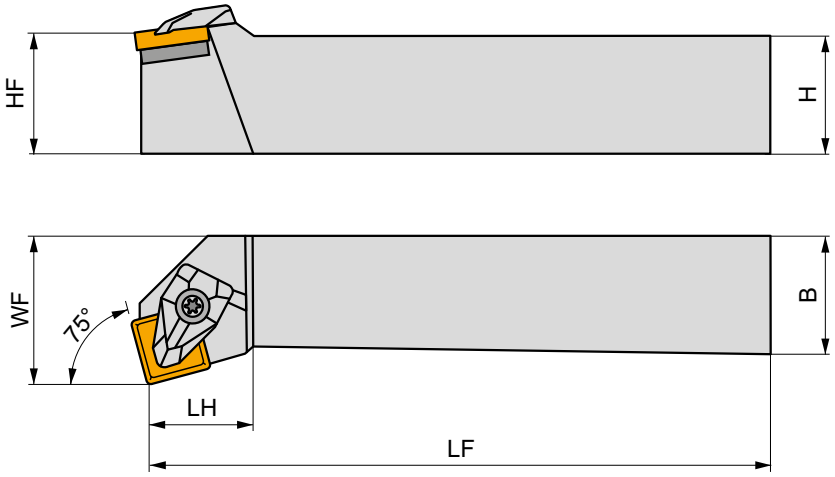
PRAMET

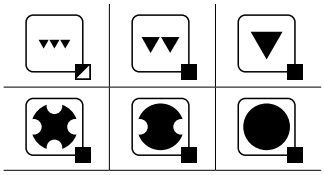
D

External Double Clamp Holder with 75° (Face) Cutting Angle for SN.. Insert

External Right/Left hand double clamp tool holder with 75° cutting angle. Suited for facing without shoulder and chamfering with SN.. 12.. or 19.. size inserts. Available in 25x25 up to 32x32 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg			
R	DSKNR 2525 M 12	25	25	25	32	150	23.6	-6	-6	0.79	GI029	DS12	AT003
	DSKNR 3232 P 19	32	32	32	40	170	32.1	-6	-6	1.46	GI026	DS19	–
L	DSKNL 2525 M 12	25	25	25	32	150	23.6	-6	-6	0.79	GI029	DS12	AT003
	DSKNL 3232 P 19	32	32	32	40	170	32.1	-6	-6	1.46	GI026	DS19	–

GI026	SN.. 1906..
GI029	SN.. 1204..

		Nm				
DS12	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–
DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P

AT003a	SN.. 1207..	–	DSS 425-02
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–

DSSN(RL) EXT

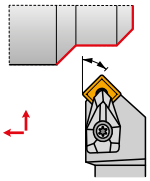
P M K N S H

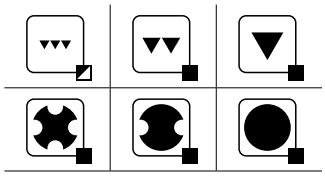
PRAMET

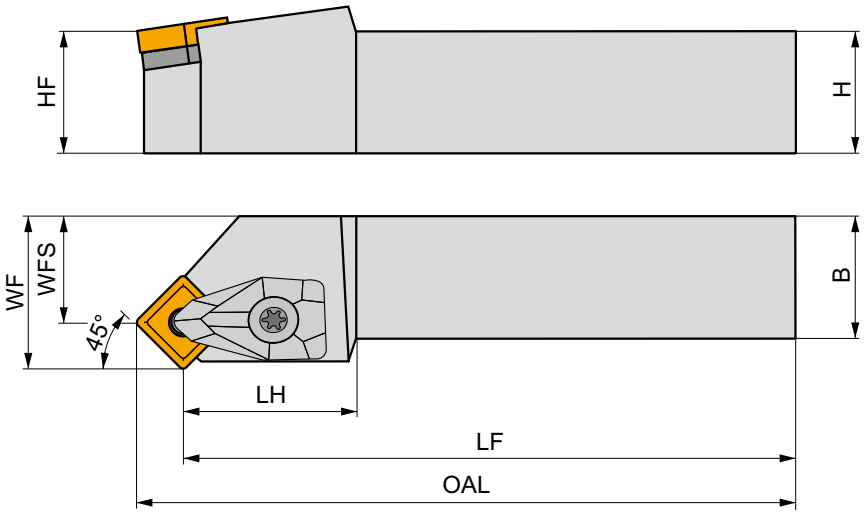
D

External Double Clamp Holder with 45° Cutting Angle for SN.. Insert

External Right/Left hand double clamp tool holder with 45° cutting angle. Suited for longitudinal and facing without shoulder, taper, copy turning and chamfering with negative SN.. 12, 15 or 19 size inserts. Available in 20x20 up to 40x40 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	WFS [mm]	LF [mm]	OAL [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg			
R	**DSSNR 2020 K 12**	20	20	20	25	16.7	125	133.3	27.5	0	-8	0.45	GI029	DS12	AT003
	DSSNR 2525 M 12	25	25	25	32	23.7	150	158.3	27.5	0	-8	0.80	GI029	DS12	AT003
	DSSNR 2525 M 15	25	25	25	32	21.8	150	160.2	32	0	-8	0.83	GI082	DS15	AT006
	DSSNR 3225 P 15	32	25	32	32	21.8	170	180.2	34.9	0	-8	1.16	GI082	DS15	AT006
	DSSNR 3232 P 19	32	32	32	40	27.5	170	182.5	37	0	-8	1.48	GI026	DS19	–
	DSSNR 4040 S 19	40	40	40	50	37.5	250	262.5	37.7	0	-8	3.27	GI026	DS19	–
L	**DSSNL 2020 K 12**	20	20	20	25	16.7	125	133.3	27.5	0	-8	0.45	GI029	DS12	AT003
	DSSNL 2525 M 12	25	25	25	32	23.7	150	158.3	27.5	0	-8	0.19	GI029	DS12	AT003
	DSSNL 2525 M 15	25	25	25	32	21.8	150	160.2	32	0	-8	0.83	GI082	DS15	AT006
	DSSNL 3225 P 15	32	25	32	32	21.8	170	180.2	34.9	0	-8	1.16	GI082	DS15	AT006
	DSSNL 3232 P 19	32	32	32	40	27.5	170	182.5	37	0	-8	1.48	GI026	DS19	–
	DSSNL 4040 S 19	40	40	40	50	37.5	250	262.5	37.7	0	-8	3.27	GI026	DS19	–

GI026	SN.. 1906..
GI029	SN.. 1204..
GI082	SN.. 1506..

		Nm				
DS12	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–
DS15	DCS 16	6.4	DSS 425-03	US 2007-T20P	–	LK T20P
DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P

AT003a	SN.. 1207..	–	DSS 425-02
AT006a	SN.. 1507..	–	DSS 425-05
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–
AT006b	CER CN.N 1606..	DCS 16C4	–
AT006c	CER CN.A 1606..	DCS 16C2	–

PSBN(RL) EXT

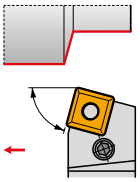
P M K N S H

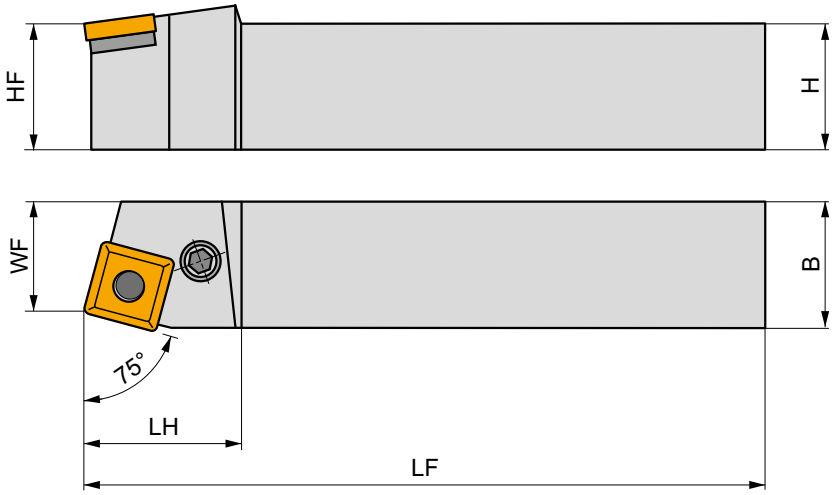
PRAMET

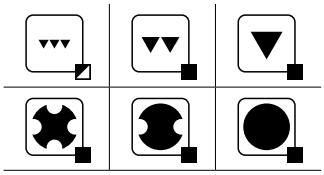
P

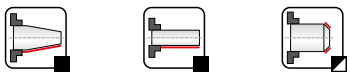
External Lever Lock Holder with 75° Cutting Angle for SN.. Insert

External Right/Left hand lever lock tool holder with 75° cutting angle. Suited for longitudinal turning without shoulder, taper turning and chamfering with negative SN.. 12, 15, 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shank. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PSBNR 2020 K 12	20	20	20	17	125	36	-6	-6	0.43	GI029	PS22
	PSBNR 2525 M 12	25	25	25	22	150	36	-6	-6	0.75	GI029	PS20
	PSBNR 3225 P 15	32	25	32	22	170	40	-6	-6	1.05	GI082	PS40
	PSBNR 3232 P 19	32	32	32	27	170	45	-6	-6	1.30	GI026	PS50
	PSBNR 4040 R 19	40	40	40	35	200	45	-6	-6	2.40	GI026	PS50
	PSBNR 4040 S 19	40	40	40	35	250	45	-6	-6	3.12	GI026	PS50
	PSBNR 4040 R 25	40	40	40	35	200	45	-6	-6	2.45	GI027	PS60
	PSBNR 4040 S 25	40	40	40	35	250	50	-6	-6	2.85	GI027	PS60
	PSBNR 4040 S 2509	40	40	40	35	250	50	-6	-6	2.50	GI040	PS70
	PSBNR 4040 S 2512-A	40	40	40	35	250	50	-6	-6	3.08	GI162	PS72
	PSBNR 5050 S 25	50	50	50	43	250	50	-6	-6	4.70	GI027	PS60
	PSBNR 5050 T 25	50	50	50	43	300	50	-6	-6	5.83	GI027	PS60
	PSBNR 5050 T 2509	50	50	50	43	300	50	-6	-6	5.50	GI040	PS70
	PSBNR 5050 T 2512-A	50	50	50	43	300	50	-6	-6	5.83	GI162	PS72
L	PSBNL 2020 K 12	20	20	20	17	125	36	-6	-6	0.42	GI029	PS22
	PSBNL 2525 M 12	25	25	25	22	150	36	-6	-6	0.75	GI029	PS20
	PSBNL 3225 P 15	32	25	32	22	170	40	-6	-6	1.05	GI082	PS40
	PSBNL 3232 P 19	32	32	32	27	170	45	-6	-6	1.36	GI026	PS50
	PSBNL 4040 R 19	40	40	40	35	200	45	-6	-6	2.50	GI026	PS50
	PSBNL 4040 S 19	40	40	40	35	250	45	-6	-6	3.13	GI026	PS50
	PSBNL 4040 R 25	40	40	40	35	200	45	-6	-6	2.45	GI027	PS60
	PSBNL 4040 S 25	40	40	40	35	250	50	-6	-6	3.10	GI027	PS60
	PSBNL 4040 S 2509	40	40	40	35	250	50	-6	-6	2.50	GI040	PS70
	PSBNL 4040 S 2512-A	40	40	40	35	250	50	-6	-6	3.11	GI162	PS72
	PSBNL 5050 S 25	50	50	50	43	250	50	-6	-6	4.70	GI027	PS60
	PSBNL 5050 T 25	50	50	50	43	300	50	-6	-6	5.84	GI027	PS60
	PSBNL 5050 T 2509	50	50	50	43	300	50	-6	-6	5.80	GI040	PS70

	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
L	**PSBNL 5050 T 2512-A**	50	50	50	43	300	50	-6	-6	5.82	GI162	PS72

GI026	SN.. 1906..
GI027	SN.. 2507..
GI029	SN.. 1204..
GI040	SN.. 2509..
GI082	SN.. 1506..
GI162	SN.. 2512..

				Nm					
PS20	SNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PS22	SNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PS40	SNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5
PS70	SNU 250624	PU 06	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5
PS72	SNU 250624	PU 10-N	PS 12040	8.0	M 12x1	40	NT 08	MT 08	HXK 5

PSDNN EXT

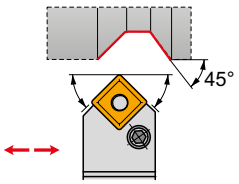
P M K N S H

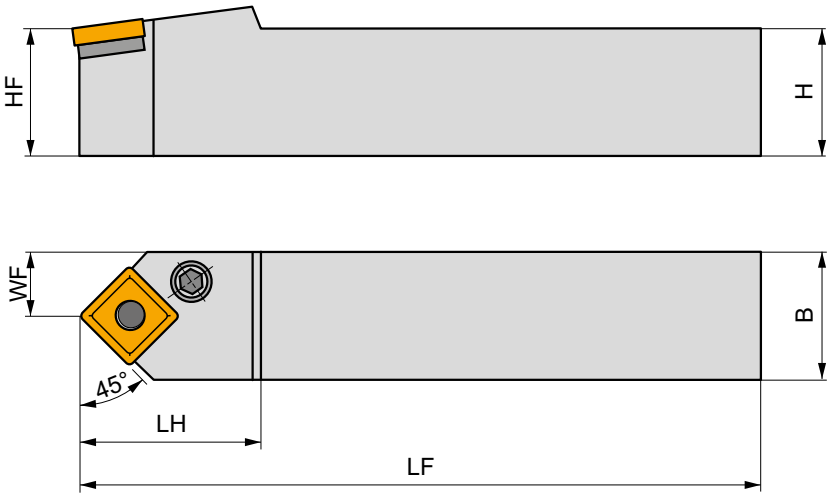
PRAMET

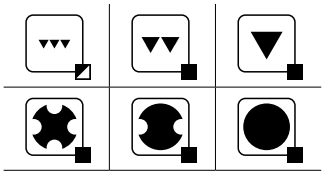
P

External Lever Lock Holder with 45° Cutting Angle for SN.. Insert

External neutral lever lock tool holder with 45° cutting angle. Suited for longitudinal turning without shoulder, copy and taper turning and chamfering with negative SN.. 12, 15, 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
N	**PSDNN 2020 K 12**	20	20	20	10	125	36	-6	-6	0.42	GI029	PS22
	PSDNN 2525 M 12	25	25	25	12.5	150	36	-6	-6	0.68	GI029	PS20
	PSDNN 3232 P 15	32	32	32	16	170	40	-6	-6	1.32	GI082	PS40
	PSDNN 3232 P 19	32	32	32	16	170	45	-6	-6	1.25	GI026	PS50
	PSDNN 4040 S 19	40	40	40	20	250	45	-6	-6	3.05	GI026	PS50
	PSDNN 4040 S 25	40	40	40	20	250	50	-6	-6	3.02	GI027	PS60
	PSDNN 5050 T 25	50	50	50	25	300	50	-6	-6	5.65	GI027	PS60

GI026	SN.. 1906..
GI027	SN.. 2507..
GI029	SN.. 1204..
GI082	SN.. 1506..

				Nm					
PS20	SNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PS22	SNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PS40	SNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5

PSKN(RL) EXT

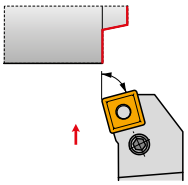
P M K N S H

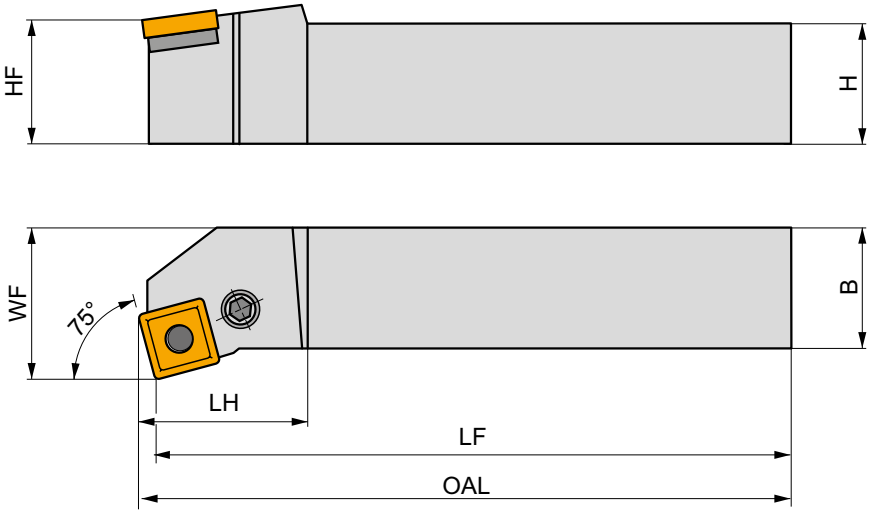
PRAMET

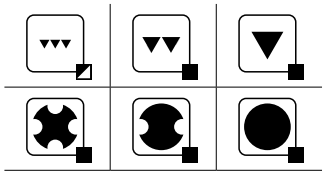
P

External Lever Lock Holder, 75° (Face Turning) Cutting Angle for SN.. Insert

External Right/Left hand lever lock tool holder with 75° cutting angle. Suited for face turning without shoulder and chamfering with negative SN.. 12, 15, 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shank. Body treated for longer tool life.







	Product	H	B	HF	WF	LF	OAL	LH	LAMS	GAMO			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[°]	kg		
R	**PSKNR 2020 K 12**	20	20	20	25	125	128.1	36	-6	-6	0.43	GI029	PS22
	PSKNR 2525 M 12	25	25	25	32	150	153.1	36	-6	-6	0.79	GI029	PS20
	PSKNR 3225 P 15	32	25	32	32	170	173.9	40	-6	-6	0.40	GI082	PS40
	PSKNR 3232 P 19	32	32	32	40	170	174.6	45	-6	-6	1.40	GI026	PS50
	PSKNR 4040 S 19	40	40	40	50	250	254.6	45	-6	-6	3.25	GI026	PS50
	PSKNR 4040 S 25	40	40	40	50	250	256.5	50	-6	-6	3.40	GI027	PS60
	PSKNR 5050 T 25	50	50	50	60	300	306.5	50	-6	-6	6.05	GI027	PS60
	PSKNR 5050 T 2509	50	50	50	60	300	306.5	50	-6	-6	6.20	GI040	PS70
L	**PSKNL 2020 K 12**	20	20	20	25	125	128.1	36	-6	-6	0.43	GI029	PS22
	PSKNL 2525 M 12	25	25	25	32	150	153.1	36	-6	-6	0.79	GI029	PS20
	PSKNL 3225 P 15	32	25	32	32	170	173.9	40	-6	-6	1.05	GI082	PS40
	PSKNL 3232 P 19	32	32	32	40	170	174.6	45	-6	-6	1.40	GI026	PS50
	PSKNL 4040 S 19	40	40	40	50	250	254.6	45	-6	-6	3.26	GI026	PS50
	PSKNL 4040 S 25	40	40	40	50	250	256.5	50	-6	-6	3.40	GI027	PS60
	PSKNL 5050 T 25	50	50	50	60	300	306.5	50	-6	-6	6.00	GI027	PS60
	PSKNL 5050 T 2509	50	50	50	60	300	306.5	50	-6	-6	6.20	GI040	PS70

GI026	SN.. 1906..
GI027	SN.. 2507..
GI029	SN.. 1204..
GI040	SN.. 2509..
GI082	SN.. 1506..

									
PS20	SNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PS22	SNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PS40	SNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5
PS70	SNU 250624	PU 06	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5

PSSN(RL) EXT

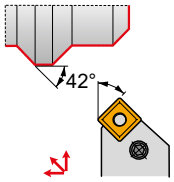
P M K N S H

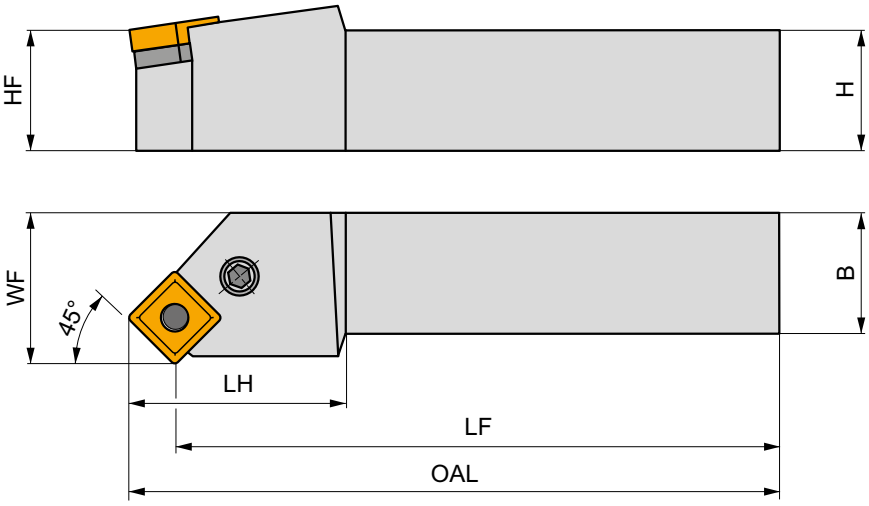
PRAMET

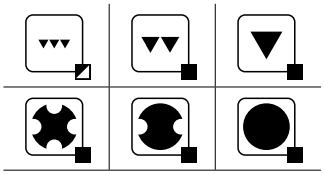
P

External Lever Lock Holder with 45° Cutting Angle for SN.. Insert

External Right/Left hand lever lock tool holder with 45° cutting angle. Suited for longitudinal and face turning without shoulder, copy and taper turning and chamfering with negative SN.. 12, 15, 19 or 25 size inserts. Available in 20x20 up to 50x50 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	OAL [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PSSNR 2020 K 12**	20	20	20	25	125	133.3	36	0	-8	0.41	GI029	PS22
	PSSNR 2525 M 12	25	25	25	32	150	158.3	36	0	-8	0.75	GI029	PS20
	PSSNR 3225 P 15	32	25	32	32	170	180.2	40	0	-8	1.13	GI082	PS40
	PSSNR 3232 P 19	32	32	32	40	170	182.5	45	0	-8	1.34	GI026	PS50
	PSSNR 4040 R 19	40	40	40	50	200	212.5	45	0	-8	2.50	GI026	PS50
	PSSNR 5050 T 25	50	50	50	60	300	316	50	0	-8	6.00	GI027	PS60
	PSSNR 5050 T 2509	50	50	50	60	300	316	50	0	-8	6.05	GI040	PS70
L	**PSSNL 2020 K 12**	20	20	20	25	125	133.3	36	0	-8	0.41	GI029	PS22
	PSSNL 2525 M 12	25	25	25	32	150	158.3	36	0	-8	0.67	GI029	PS20
	PSSNL 3225 P 15	32	25	32	32	170	180.2	40	0	-8	1.15	GI082	PS40
	PSSNL 3232 P 19	32	32	32	40	170	182.5	45	0	-8	1.44	GI026	PS50
	PSSNL 4040 R 19	40	40	40	50	200	212.5	45	0	-8	2.58	GI026	PS50
	PSSNL 5050 T 25	50	50	50	60	300	316	50	0	-8	6.00	GI027	PS60
	PSSNL 5050 T 2509	50	50	50	60	300	316	50	0	-8	6.08	GI040	PS70

GI026	SN.. 1906..
GI027	SN.. 2507..
GI029	SN.. 1204..
GI040	SN.. 2509..
GI082	SN.. 1506..

				Nm					
PS20	SNU 120312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PS22	SNU 120312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4
PS40	SNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5
PS70	SNU 250624	PU 06	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5

C.-DSDNN EXT

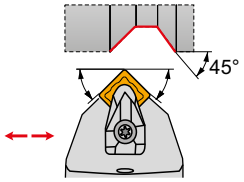
P M K N S H

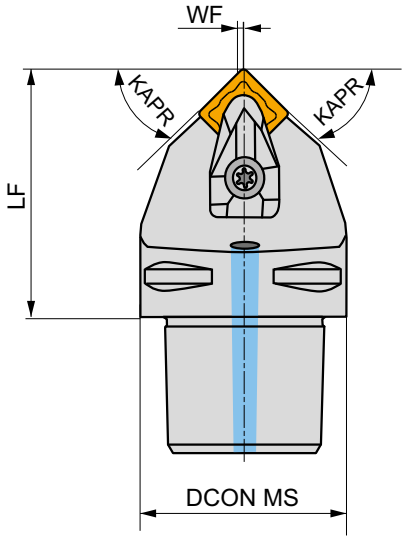
PRAMET

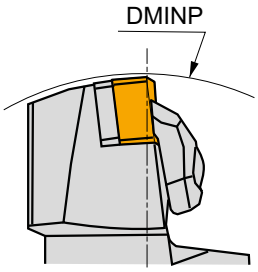
D

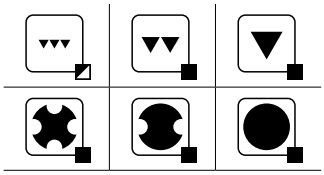
External PSC Quick Change Tool, Double Clamp, 45° Cutting Angle, SN.. Insert

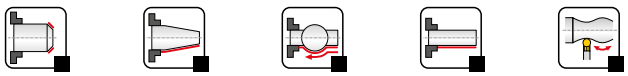
External neutral double clamp tool, through coolant, with 45° cutting angle for longitudinal turning without shoulder, copy turning, taper turning and chamfer turning with negative SN.. 12 or 19 size inserts. Available with PSC (Polygon Shank Coupling) C4 up to C6 shank. Body treated for longer tool life.











	Product	DCON MS [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
N	C4-DSDNN-00050-12	40	140	0.3	50	45	-6	-6	✓	0.39	GI029	C-DS12-2	AT003
	C5-DSDNN-00060-12	50	165	0.3	60	45	-6	-6	✓	0.69	GI029	C-DS12-2	AT003
	C6-DSDNN-00070-19	63	195	0.5	70	45	-6	-6	✓	1.28	GI026	C-DS19	–

GI026	SN.. 1906..
GI029	SN.. 1204..

		Nm					
C-DS12-2	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–	CN 045-01
C-DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P	CN 045-01

AT003a	SN.. 1207..	–	DSS 425-02
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–

C.-DSKN(RL) EXT

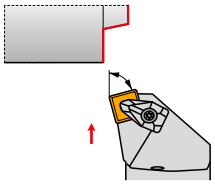
P M K N S H

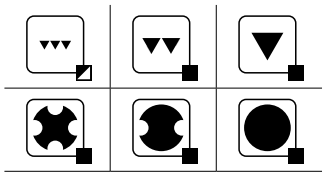
PRAMET

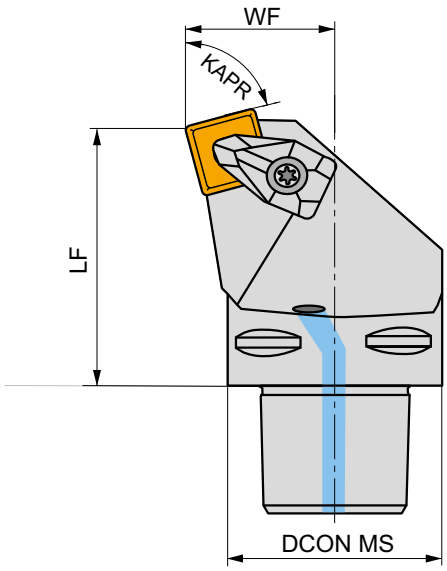
D

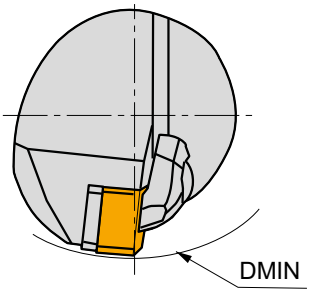
Ext. PSC Quick Change Tool, Double Clamp, 75° (Face) Cutting Angle, SN.. Ins

External Right/Left hand double clamp tool, through coolant, with 75° cutting angle for face turning without shoulder and chamfering with negative SN.. 12.. size inserts. Available with PSC (Polygon Shank Coupling) C4. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	C4-DSKNR-27050-12	40	110	27	50	75	-6	-6	✓	0.46	GI029	C-DS12-1	AT003
L	C4-DSKNL-27050-12	40	110	27	50	75	-6	-6	✓	0.46	GI029	C-DS12-1	AT003

GI029	SN.. 1204..

C-DS12-1	DCS 12	3.9 Nm	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	CN 034-01

AT003a	SN.. 1207..	–	DSS 425-02
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–

C.-DSRN(RL) EXT

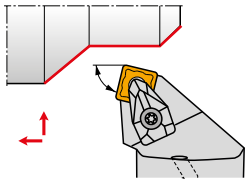
P M K N S H

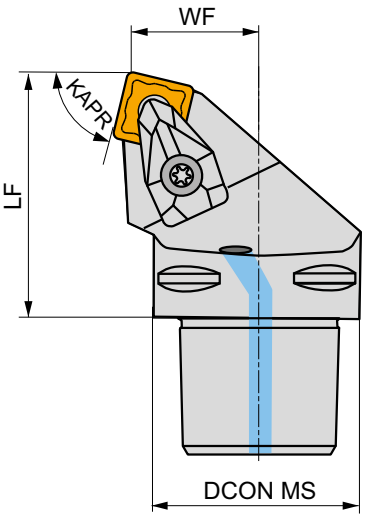
PRAMET

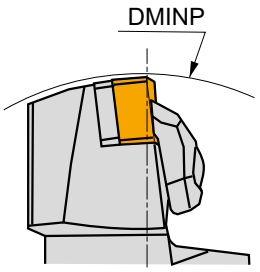
D

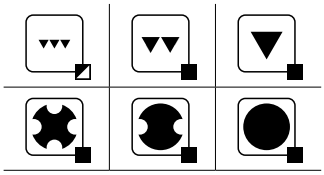
External PSC Quick Change Tool, Double Clamp, 75° Cutting Angle, SN.. Insert

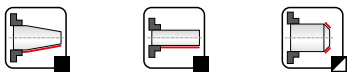
External Right/Left hand double clamp tool, through coolant, with 75° cutting angle for longitudinal turning without shoulder, taper turning and chamfering with negative SN.. 12 or 19 size inserts. Available with PSC (Polygon Shank Coupling) C4 up to C6 shank. Body treated for longer tool life.











	Product	DCON MS [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	C4-DSRNR-22050-12	40	140	22	50	75	-6	-6	✓	0.40	GI029	C-DS12-1	AT003
	C6-DSRNR-35065-19	63	190	35	65	75	-6	-6	✓	1.30	GI026	C-DS19	–
L	C4-DSRNL-22050-12	40	140	22	50	75	-6	-6	✓	0.42	GI029	C-DS12-1	AT003
	C6-DSRNL-35065-19	63	190	35	65	75	-6	-6	✓	1.30	GI026	C-DS19	–

GI026	SN.. 1906..
GI029	SN.. 1204..

C-DS12-1	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	–	CN 034-01
C-DS19	DCS 19	6.4	DSS 425-04	US 2007-T20P	–	LK T20P	CN 045-01

AT003a	SN.. 1207..	–	DSS 425-02
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–

C.-DSSN(RL) EXT

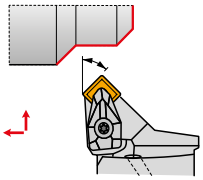
P M K N S H

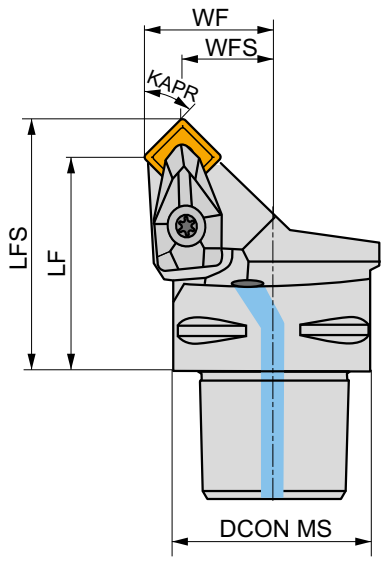
PRAMET

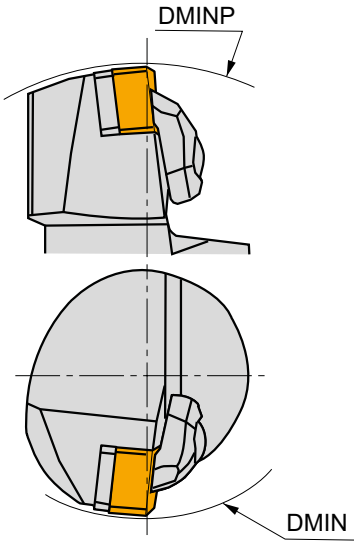
D

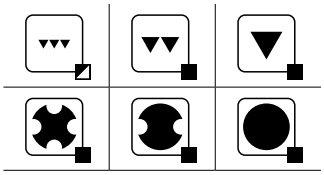
External PSC Quick Change Tool, Double Clamp, 45° Cutting Angle, SN.. Insert

External Right/Left hand double clamp tool, through coolant, with 45° cutting angle for longitudinal and face turning without shoulder, taper turning, copy turning and chamfering with negative SN.. 12, 15 or 19 size insert. Available with PSC (Polygon Shank Coupling) C4 and C5 shank. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	WFS [mm]	LF [mm]	LFS [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	**C4-DSSNR-27042-12**	40	110	140	27	18.7	42	50.3	45	0	-8	✓	0.38	GI029	C-DS12-1	AT003
	C5-DSSNR-35052-12	50	110	165	35	26.7	52	60.3	45	0	-8	✓	0.68	GI029	C-DS12-3	AT003
L	**C4-DSSNL-27042-12**	40	110	140	27	18.7	42	50.3	45	0	-8	✓	0.36	GI029	C-DS12-1	AT003
	C5-DSSNL-35052-12	50	110	165	35	26.7	52	60.3	45	0	-8	✓	0.69	GI029	C-DS12-3	AT003

GI029	SN.. 1204..

		Nm				
C-DS12-1	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	CN 034-01
C-DS12-3	DCS 12	3.9	DSS 425-01	US 2002-T15P	FLAG T15P/3,5	CN 034-02

AT003a	SN.. 1207..	–	DSS 425-02
AT003b	CER SN.N 1204..	DCS 12C4	–
AT003c	CER SN.A 1204..	DCS 12C2	–

KHP-SBN(RL)

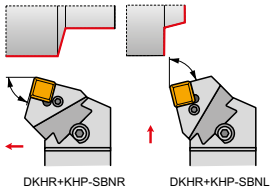
P M K

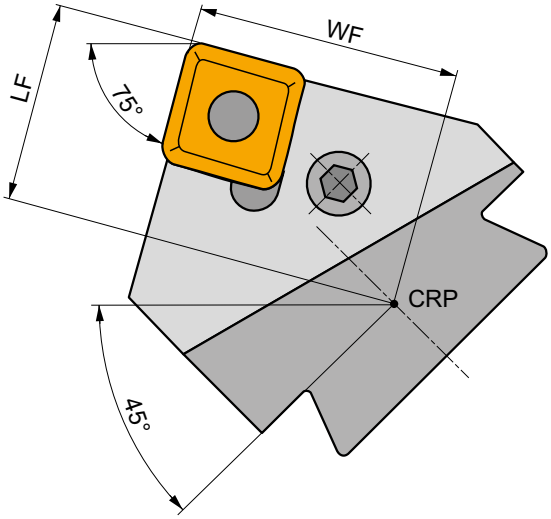
PRAMET

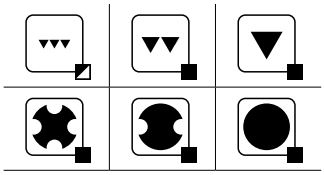
P

Modular KHP Lever Lock Turning Cartridge, 75° Cutting Angle for SN.. Inserts

Dovetailed Right/Left hand lever lock turning cartridge, 75° Cutting Angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, face turning, taper and chamfer turning with negative SN.. 19 or 25 inserts. Tool holder treated for longer tool life.







	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	**KHP-SBNR 19**	47	36	-6	-6	1.51	GI026	PS50
	KHP-SBNR 25	47	36	-6	-6	1.47	GI027	PS60
	KHP-SBNR 2509	47	36	-6	-6	1.45	GI040	PS70
	KHP-SBNR 2512-A	47	36	-6	-6	1.71	GI162	PS72
L	**KHP-SBNL 19**	47	36	-6	-6	1.96	GI026	PS50
	KHP-SBNL 25	47	36	-6	-6	1.48	GI027	PS60
	KHP-SBNL 2509	47	36	-6	-6	1.46	GI040	PS70
	KHP-SBNL 2512-A	47	36	-6	-6	1.45	GI162	PS72

GI026	SN.. 1906..
GI027	SN.. 2507..
GI040	SN.. 2509..
GI162	SN.. 2512..

				Nm					
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5
PS70	SNU 250624	PU 06	US 47	8.0	M 12x1	36	NT 08	MT 08	HXK 5
PS72	SNU 250624	PU 10-N	PS 12040	8.0	M 12x1	40	NT 08	MT 08	HXK 5

KHP-SSN(RL)

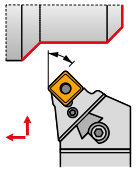
P M K

PRAMET

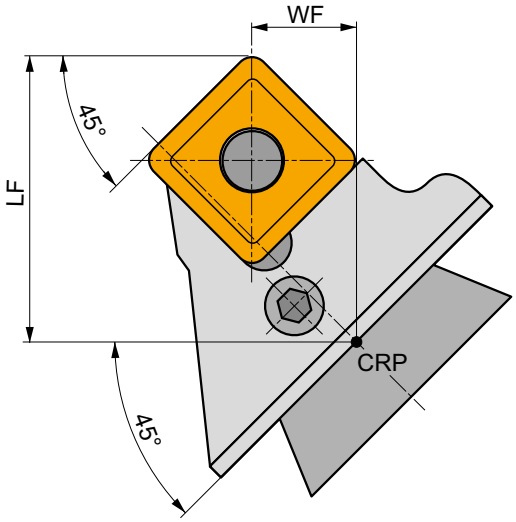
P

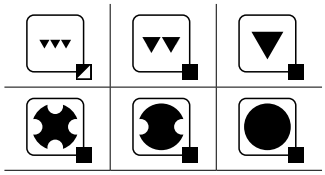
Modular KHP Lever Lock Turning Cartridge, 45° Cutting Angle for SN.. Inserts

Dovetailed Right/Left hand lever lock turning cartridge, 45° Cutting Angle, for mounting on DKH tool holder shank. Suited for heavy longitudinal turning without shoulder, face turning, copy, taper and chamfer turning with negative SN.. 19 or 25 inserts. Tool holder treated for longer tool life.



DKHR+KHP-SSNR





	Product	WF [mm]	LF [mm]	LAMS [°]	GAMO [°]	kg		
R	**KHP-SSNR 19**	15	45	-6	-6	1.28	GI026	PS50
R	**KHP-SSNR 25**	15	45	-6	-6	0.98	GI027	PS60
L	**KHP-SSNL 19**	15	45	-6	-6	1.03	GI026	PS50
L	**KHP-SSNL 25**	15	45	-6	-6	1.30	GI027	PS60

GI026	SN.. 1906..
GI027	SN.. 2507..

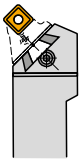
				Nm					
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5
PS60	SNU 250624	PU 06	US 39	8.0	M 10x1	33	NT 08	MT 08	HXK 5

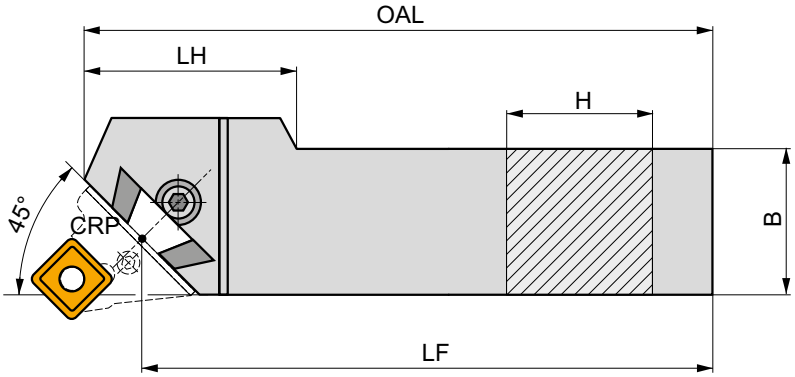
DKH(RL)

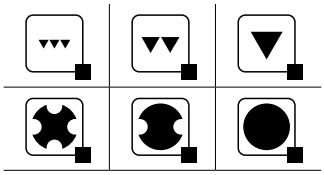
PRAMET

External Tool Holder Shank for KHP/KHS Heavy Turning Cartridges

Dovetailed Right/Left hand modular tool shank for KHP/KHS cartridges. Suited for heavy turning applications. Available with shank size 40x50 up to 60x80 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	LF [mm]	OAL [mm]	LH [mm]	kg		
R	**DKHR 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHR 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHR 6080 W-A	60	80	450	485	90	19.65	GI098	DKH10
L	**DKHL 4050 V**	40	50	400	425	100	7.10	GI098	DKH10
	DKHL 5060 W	50	60	450	475	110	11.30	GI098	DKH10
	DKHL 6080 W-A	60	80	450	485	90	19.28	GI098	DKH10

GI098	KHP	KHS

DKH10	SR 14	HXK 10

PSKN(RL) INT

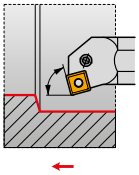
P M K N S H

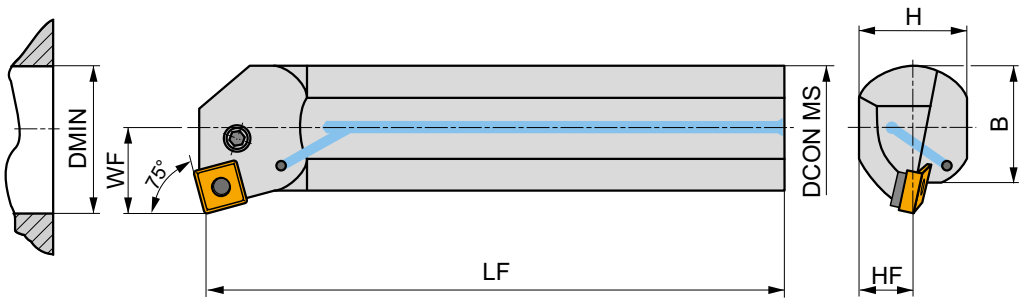
PRAMET

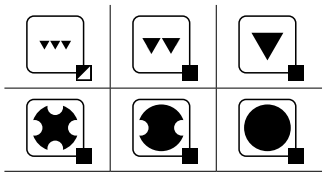
P

Internal Lever Lock Boring Bar with 75° Cutting Angle for SN.. Insert

Internal Right/Left hand lever lock boring bar, through coolant, 75° cutting angle for SN.. 12, 15 and 19 inserts. Minimum internal turning diameter Ø40 mm. For internal taper and longitudinal turning without shoulder and chamfer turning. Available with shank size Ø32 up to Ø60 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	**A32S-PSKNR 12**	32	40	22	30	30	250	-12	-6	✓	1.50	GI029	PS21
	A40T-PSKNR 15	40	50	27	38	38	300	-12	-6	✓	2.90	GI082	PS41
	A50U-PSKNR 15	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI082	PS40
	A50U-PSKNR 19	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI026	PS50
	A60V-PSKNR 19	60	80	43	57	58.5	400	-12	-6	✓	8.70	GI026	PS50
L	**A32S-PSKNL 12**	32	40	22	30	30	250	-12	-6	✓	1.40	GI029	PS21
	A40T-PSKNL 15	40	50	27	38	38	300	-12	-6	✓	2.90	GI082	PS41
	A50U-PSKNL 15	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI082	PS40
	A50U-PSKNL 19	50	63	35	47	48.5	350	-12	-6	✓	5.20	GI026	PS50

GI026	SN.. 1906..
GI029	SN.. 1204..
GI082	SN.. 1506..

				Nm					
PS21	SNU 120312	PU 02	US 41	6.0	M 8x1	17	NT 05	MT 05	HXK 4
PS40	SNU 150312	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4
PS41	SNU 150312	PU 04	US 40	6.0	M 8x1	20.5	NT 07	MT 07	HXK 4
PS50	SNU 190416	PU 05	US 38	8.0	M 10x1	29	NT 06	MT 06	HXK 5

TN

16/ 22/ 27/ 33

CARBIDE INSERTS

TNMA

334

TNMG

335

TNMM

342

CER AND CBN INSERTS

TNGA CER

343

TNGN CER

344

TNGA CBN

344

MATCH THE RIGHT SIZE (example)

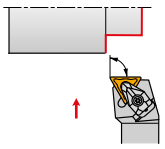
Insert	Tool Holder
TNMM 160412E-OR	DTFNR 2525 M 16

ISO TURNING – EXTERNAL

DTFN(RL) EXT

90°

TN..: 16, 22



20×20 / 25×25

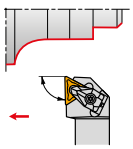
345

334 – 344

DTGN(RL) EXT

90°

TN..: 16, 22



20×20 / 32×25

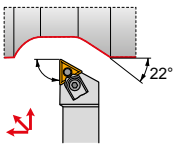
346

334 – 344

MTJN(RL) EXT

93°

TN..: 16, 22



16×16 / 32×32

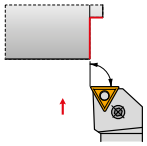
347

334 – 344

PTFN(RL) EXT

90°

TN..: 16, 22, 27



16×16 / 40×40

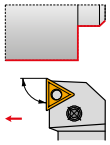
348

334 – 344

PTGN(RL) EXT

90°

TN..: 16, 22, 27



16×16 / 40×40

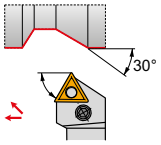
349

334 – 344

PTTN(RL) EXT

60°

TN..: 16, 22



20×20 / 32×25

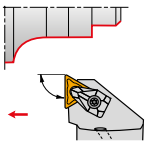
350

334 – 344

C.-DTJN(RL) EXT

93°

TN..: 16



C4 / C5

351

334 – 344

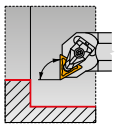
TN

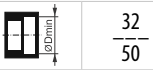
16/ 22/ 27/ 33

ISO TURNING – INTERNAL

DTFN(RL) INT

90°





TN..

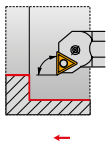
16
22

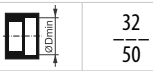
352

334 – 344

PTFN(RL) INT

90°





TN..

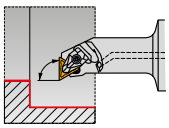
16
22

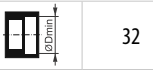
353

334 – 344

C.-DTFN(RL) INT

91°





TN..

16

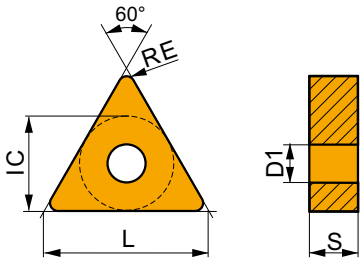
354

334 – 344

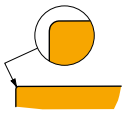
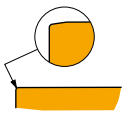
TNMA

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.50	4.76
2204	12.700	5.16	22.00	4.76



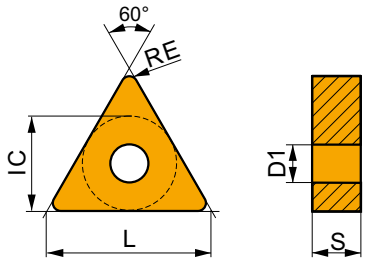
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 			E																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TNMA 160404	**T5305**	0.4	–	–	–	–	–	–	220	0.10	1.5	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	190	0.10	1.5	–	–	–	–	–	–	40	0.15	1.0
TNMA 160408	**T5305**	0.8	–	–	–	–	–	–	205	0.20	1.5	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	180	0.20	1.5	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	90	0.20	1.5	–	–	–	–	–	–	20	0.15	1.0
TNMA 160412	**T5305**	1.2	–	–	–	–	–	–	215	0.20	1.5	–	–	–	–	–	–	45	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	190	0.20	1.5	–	–	–	–	–	–	40	0.15	1.0
TNMA 220408	**T5305**	0.8	–	–	–	–	–	–	195	0.20	2.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	175	0.20	2.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	90	0.20	2.0	–	–	–	–	–	–	20	0.15	1.0
TNMA 220412	**T5305**	1.2	–	–	–	–	–	–	205	0.20	2.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	185	0.20	2.0	–	–	–	–	–	–	35	0.15	1.0
 			S																	
			For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TNMA 160408S	**T5305**	0.8	–	–	–	–	–	–	205	0.20	1.5	–	–	–	–	–	–	40	0.15	1.0

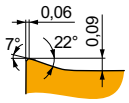
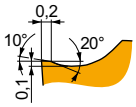
TNMG

PRAMET

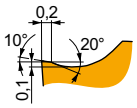
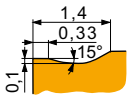
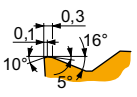
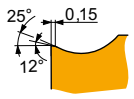
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.50	4.76
2204	12.700	5.16	22.00	4.76
2706	15.875	6.35	27.50	6.35
3309	19.050	7.94	33.00	9.525



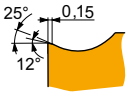
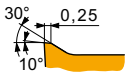
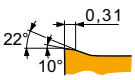
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			U S																	
			FF geometry with highly positive design for fine-finish machining, and continuous to slightly interrupted cuts.																	
TNMG 160404E-FF	**T7325**	0.4	200	0.12	1.0	155	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	185	0.12	1.0	110	0.11	1.0	175	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8330	0.4	175	0.12	1.0	105	0.11	1.0	165	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	210	0.12	1.0	115	0.11	1.0	175	0.12	1.0	–	–	–	–	–	–	–	–	–
TNMG 160408E-FF	**T7325**	0.8	225	0.15	1.0	175	0.14	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	205	0.15	1.0	120	0.14	1.0	190	0.15	1.0	–	–	–	–	–	–	–	–	–
			1 S																	
			FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
TNMG 160404E-FM	**T7325**	0.4	160	0.20	1.7	120	0.18	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T7335	0.4	160	0.20	1.7	120	0.18	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T8315	0.4	150	0.20	1.7	90	0.18	1.7	140	0.20	1.7	–	–	–	35	0.14	1.4	–	–	–
	T8330	0.4	145	0.20	1.7	85	0.18	1.7	135	0.20	1.7	–	–	–	35	0.14	1.4	–	–	–
	T8430	0.4	165	0.20	1.7	90	0.18	1.7	135	0.20	1.7	–	–	–	35	0.14	1.4	–	–	–
	T9310	0.4	245	0.20	1.7	–	–	–	230	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.4	220	0.20	1.7	–	–	–	205	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	200	0.20	1.7	120	0.18	1.7	190	0.20	1.7	–	–	–	45	0.20	1.4	–	–	–
	TT310	0.4	225	0.20	1.7	135	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 160408E-FM	**T7325**	0.8	195	0.20	1.7	150	0.18	1.7	–	–	–	–	–	–	60	0.16	1.4	–	–	–
	T7335	0.8	190	0.20	1.7	145	0.18	1.7	–	–	–	–	–	–	60	0.16	1.4	–	–	–
	T8315	0.8	180	0.20	1.7	105	0.18	1.7	170	0.20	1.7	–	–	–	45	0.16	1.4	–	–	–
	T8330	0.8	170	0.20	1.7	100	0.18	1.7	160	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T8430	0.8	195	0.20	1.7	105	0.18	1.7	160	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T9310	0.8	290	0.20	1.7	–	–	–	275	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9315	0.8	265	0.20	1.7	–	–	–	250	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	235	0.20	1.7	140	0.18	1.7	220	0.20	1.7	–	–	–	50	0.16	1.4	–	–	–
	TT310	0.8	270	0.20	1.7	160	0.18	1.7	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 160412E-FM	**T7325**	1.2	190	0.25	1.7	145	0.23	1.7	–	–	–	–	–	–	60	0.18	1.4	–	–	–
	T8330	1.2	165	0.25	1.7	95	0.23	1.7	155	0.25	1.7	–	–	–	40	0.18	1.4	–	–	–
	T8430	1.2	185	0.25	1.7	100	0.23	1.7	150	0.25	1.7	–	–	–	40	0.18	1.4	–	–	–
	T9310	1.2	280	0.25	1.7	–	–	–	265	0.25	1.7	–	–	–	–	–	–	–	–	–
	T9315	1.2	255	0.25	1.7	–	–	–	240	0.25	1.7	–	–	–	–	–	–	–	–	–
	T9325	1.2	225	0.25	1.7	135	0.23	1.7	210	0.25	1.7	–	–	–	50	0.18	1.4	–	–	–
TNMG 220404E-FM	**T8330**	0.4	145	0.20	1.7	85	0.18	1.7	135	0.20	1.7	–	–	–	35	0.20	1.4	–	–	–
	T8430	0.4	150	0.24	1.7	80	0.22	1.7	125	0.24	1.7	–	–	–	30	0.22	1.4	–	–	–
	T9315	0.4	220	0.20	1.7	–	–	–	205	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	200	0.20	1.7	120	0.18	1.7	190	0.20	1.7	–	–	–	45	0.20	1.4	–	–	–

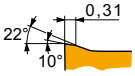
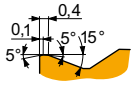
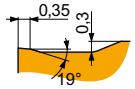
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																				
TNMG 220408E-FM	**T8330**	0.8	170	0.20	1.7	100	0.18	1.7	160	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T8430	0.8	195	0.20	1.7	105	0.18	1.7	160	0.20	1.7	–	–	–	40	0.16	1.4	–	–	–
	T9315	0.8	265	0.20	1.7	–	–	–	250	0.20	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	235	0.20	1.7	140	0.18	1.7	220	0.20	1.7	–	–	–	50	0.16	1.4	–	–	–
																				
KR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TNMG 160408E-KR	**T5305**	0.8	220	0.35	3.0	–	–	–	205	0.35	3.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	200	0.35	3.0	–	–	–	190	0.35	3.0	–	–	–	–	–	–	40	0.15	1.0
																				
M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																				
TNMG 160404E-M	**T5315**	0.4	215	0.20	1.6	–	–	–	200	0.20	1.6	–	–	–	–	–	–	40	0.15	1.0
	T9315	0.4	205	0.20	1.6	–	–	–	190	0.20	1.6	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.4	180	0.20	1.6	–	–	–	170	0.20	1.6	–	–	–	–	–	–	–	–	–
	T9335	0.4	155	0.20	1.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 160408E-M	**T5305**	0.8	250	0.30	1.6	–	–	–	235	0.30	1.6	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.8	225	0.30	1.6	–	–	–	210	0.30	1.6	–	–	–	–	–	–	45	0.15	1.0
	T9310	0.8	220	0.30	1.6	–	–	–	205	0.30	1.6	–	–	–	–	–	–	40	0.15	1.0
	T9315	0.8	205	0.30	1.6	–	–	–	190	0.30	1.6	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	185	0.30	1.6	–	–	–	175	0.30	1.6	–	–	–	–	–	–	–	–	–
	T9335	0.8	160	0.30	1.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 160412E-M	**T5315**	1.2	215	0.40	1.6	–	–	–	200	0.40	1.6	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	190	0.40	1.6	–	–	–	180	0.40	1.6	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	170	0.40	1.6	–	–	–	160	0.40	1.6	–	–	–	–	–	–	–	–	–
	T9335	1.2	145	0.40	1.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220408E-M	**T5305**	0.8	245	0.30	2.1	–	–	–	230	0.30	2.1	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	215	0.30	2.1	–	–	–	200	0.30	2.1	–	–	–	–	–	–	40	0.15	1.0
	T9310	0.8	215	0.30	2.1	–	–	–	200	0.30	2.1	–	–	–	–	–	–	40	0.15	1.0
	T9315	0.8	200	0.30	2.1	–	–	–	190	0.30	2.1	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.8	180	0.30	2.1	–	–	–	170	0.30	2.1	–	–	–	–	–	–	–	–	–
	T9335	0.8	155	0.30	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220412E-M	**T5315**	1.2	205	0.40	2.1	–	–	–	190	0.40	2.1	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	185	0.40	2.1	–	–	–	175	0.40	2.1	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	165	0.40	2.1	–	–	–	155	0.40	2.1	–	–	–	–	–	–	–	–	–
	T9335	1.2	140	0.40	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
TNMG 160404E-NF	**HF7**	0.4	–	–	–	90	0.14	1.4	140	0.15	1.4	450	0.18	1.4	–	–	–	–	–	–
	T6310	0.4	150	0.17	1.4	105	0.15	1.4	120	0.17	1.4	450	0.20	1.4	45	0.15	1.1	–	–	–
	T7325	0.4	170	0.18	1.4	130	0.16	1.4	–	–	–	–	–	–	55	0.16	1.1	–	–	–
	T7335	0.4	165	0.18	1.4	125	0.16	1.4	–	–	–	–	–	–	50	0.16	1.1	–	–	–
	T8315	0.4	160	0.17	1.4	95	0.15	1.4	150	0.17	1.4	480	0.20	1.4	40	0.15	1.1	–	–	–
	T8330	0.4	155	0.17	1.4	90	0.15	1.4	145	0.17	1.4	465	0.20	1.4	35	0.15	1.1	–	–	–
	T8430	0.4	175	0.17	1.4	95	0.15	1.4	140	0.17	1.4	480	0.20	1.4	35	0.15	1.1	–	–	–
	T9315	0.4	255	0.15	1.4	–	–	–	240	0.15	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.4	215	0.18	1.4	125	0.16	1.4	200	0.18	1.4	–	–	–	45	0.16	1.1	–	–	–

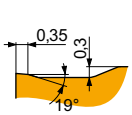
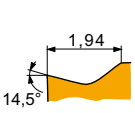
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																	
TNMG 160408E-NF	**HF7**	0.8	–	–	–	100	0.15	1.4	160	0.17	1.4	510	0.20	1.4	–	–	–	–	–	–
	T6310	0.8	180	0.18	1.4	125	0.16	1.4	145	0.18	1.4	540	0.22	1.4	50	0.16	1.1	–	–	–
	T7325	0.8	200	0.18	1.4	155	0.16	1.4	–	–	–	–	–	–	65	0.16	1.1	–	–	–
	T7335	0.8	195	0.18	1.4	150	0.16	1.4	–	–	–	–	–	–	60	0.16	1.1	–	–	–
	T8315	0.8	190	0.18	1.4	110	0.16	1.4	180	0.18	1.4	570	0.22	1.4	45	0.16	1.1	–	–	–
	T8330	0.8	180	0.18	1.4	105	0.16	1.4	170	0.18	1.4	540	0.22	1.4	45	0.16	1.1	–	–	–
	T8430	0.8	205	0.18	1.4	110	0.16	1.4	170	0.18	1.4	570	0.22	1.4	45	0.16	1.1	–	–	–
	T9315	0.8	290	0.17	1.4	–	–	–	275	0.17	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.8	255	0.18	1.4	150	0.16	1.4	240	0.18	1.4	–	–	–	55	0.16	1.1	–	–	–
																				
			NM geometry with highly positive design for fine-finish, medium and rough machining, in continuous cuts.																	
TNMG 160404E-NM	**T7325**	0.4	170	0.20	1.9	130	0.18	1.9	–	–	–	–	–	–	55	0.20	1.5	–	–	–
	T7335	0.4	160	0.20	1.9	120	0.18	1.9	–	–	–	–	–	–	50	0.20	1.5	–	–	–
	T8315	0.4	160	0.20	1.9	95	0.18	1.9	–	–	–	480	0.24	1.9	40	0.20	1.5	–	–	–
	T8330	0.4	145	0.20	1.9	85	0.18	1.9	–	–	–	435	0.24	1.9	35	0.20	1.5	–	–	–
	T8430	0.4	170	0.20	1.9	90	0.18	1.9	–	–	–	465	0.24	1.9	35	0.20	1.5	–	–	–
	T9325	0.4	210	0.20	1.9	125	0.18	1.9	–	–	–	–	–	–	45	0.20	1.5	–	–	–
TNMG 160408E-NM	**T7325**	0.8	190	0.25	1.9	145	0.23	1.9	–	–	–	–	–	–	60	0.20	1.5	–	–	–
	T7335	0.8	180	0.25	1.9	140	0.23	1.9	–	–	–	–	–	–	55	0.20	1.5	–	–	–
	T8315	0.8	175	0.25	1.9	105	0.23	1.9	–	–	–	525	0.30	1.9	40	0.20	1.5	–	–	–
	T8330	0.8	165	0.25	1.9	95	0.23	1.9	–	–	–	495	0.30	1.9	40	0.20	1.5	–	–	–
	T8430	0.8	185	0.25	1.9	100	0.23	1.9	–	–	–	510	0.30	1.9	40	0.20	1.5	–	–	–
	T9315	0.8	250	0.25	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	225	0.25	1.9	135	0.23	1.9	–	–	–	–	–	–	50	0.20	1.5	–	–	–
TNMG 220408E-NM	**T7325**	0.8	190	0.25	1.7	145	0.23	1.7	–	–	–	–	–	–	60	0.20	1.4	–	–	–
	T7335	0.8	185	0.25	1.7	140	0.23	1.7	–	–	–	–	–	–	60	0.20	1.4	–	–	–
	T8315	0.8	175	0.25	1.7	105	0.23	1.7	–	–	–	525	0.30	1.7	40	0.20	1.4	–	–	–
	T8330	0.8	165	0.25	1.7	95	0.23	1.7	–	–	–	495	0.30	1.7	40	0.20	1.4	–	–	–
	T8430	0.8	185	0.25	1.7	100	0.23	1.7	–	–	–	510	0.30	1.7	40	0.20	1.4	–	–	–
	T9315	0.8	255	0.25	1.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	225	0.25	1.7	135	0.23	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
TNMG 220412E-NM	**T7325**	1.2	190	0.30	1.7	145	0.27	1.7	–	–	–	–	–	–	60	0.24	1.4	–	–	–
	T7335	1.2	180	0.30	2.1	140	0.27	2.1	–	–	–	–	–	–	55	0.24	1.7	–	–	–
	T9325	1.2	215	0.30	2.1	125	0.27	2.1	–	–	–	–	–	–	45	0.24	1.7	–	–	–
																				
			NMR geometry with positive design for medium to rough machining, and continuous cuts.																	
TNMG 160404E-NMR	**T6310**	0.4	130	0.20	1.7	90	0.18	1.7	–	–	–	–	–	–	35	0.18	1.4	–	–	–
	T7325	0.4	145	0.20	1.7	110	0.18	1.7	–	–	–	–	–	–	45	0.18	1.4	–	–	–
	T7335	0.4	145	0.20	1.7	110	0.18	1.7	–	–	–	–	–	–	45	0.18	1.4	–	–	–
	T8330	0.4	130	0.20	1.7	75	0.18	1.7	–	–	–	–	–	–	30	0.18	1.4	–	–	–
	T8430	0.4	145	0.20	1.7	80	0.18	1.7	–	–	–	–	–	–	30	0.18	1.4	–	–	–
	T9315	0.4	200	0.20	1.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	180	0.20	1.7	105	0.18	1.7	–	–	–	–	–	–	40	0.18	1.4	–	–	–
TNMG 160408E-NMR	**T6310**	0.8	140	0.30	1.7	100	0.27	1.7	–	–	–	–	–	–	40	0.24	1.4	–	–	–
	T7325	0.8	155	0.30	1.7	120	0.27	1.7	–	–	–	–	–	–	50	0.24	1.4	–	–	–
	T7335	0.8	145	0.30	1.7	110	0.27	1.7	–	–	–	–	–	–	45	0.24	1.4	–	–	–
	T8330	0.8	140	0.30	1.7	80	0.27	1.7	–	–	–	–	–	–	35	0.24	1.4	–	–	–
	T8430	0.8	150	0.30	1.7	80	0.27	1.7	–	–	–	–	–	–	30	0.24	1.4	–	–	–
	T9315	0.8	205	0.30	1.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.30	1.7	110	0.27	1.7	–	–	–	–	–	–	40	0.24	1.4	–	–	–

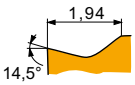
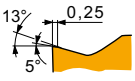
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			NMR geometry with positive design for medium to rough machining, and continuous cuts.																	
TNMG 160412E-NMR	**T7325**	1.2	165	0.30	1.7	125	0.27	1.7	–	–	–	–	–	–	50	0.24	1.4	–	–	–
	T9315	1.2	215	0.30	1.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	195	0.30	1.7	115	0.27	1.7	–	–	–	–	–	–	40	0.24	1.4	–	–	–
TNMG 220408E-NMR	**T6310**	0.8	135	0.30	2.1	95	0.27	2.1	–	–	–	–	–	–	40	0.24	1.7	–	–	–
	T7325	0.8	150	0.30	2.1	115	0.27	2.1	–	–	–	–	–	–	45	0.24	1.7	–	–	–
	T7335	0.8	145	0.30	2.1	110	0.27	2.1	–	–	–	–	–	–	45	0.24	1.7	–	–	–
	T8330	0.8	135	0.30	2.1	80	0.27	2.1	–	–	–	–	–	–	30	0.24	1.7	–	–	–
	T8430	0.8	145	0.30	2.1	80	0.27	2.1	–	–	–	–	–	–	30	0.24	1.7	–	–	–
	T9315	0.8	200	0.30	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	180	0.30	2.1	105	0.27	2.1	–	–	–	–	–	–	40	0.24	1.7	–	–	–
TNMG 220412E-NMR	**T6310**	1.2	140	0.30	2.1	100	0.27	2.1	–	–	–	–	–	–	40	0.24	1.7	–	–	–
	T7325	1.2	160	0.30	2.1	120	0.27	2.1	–	–	–	–	–	–	50	0.24	1.7	–	–	–
	T9315	1.2	210	0.30	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	190	0.30	2.1	110	0.27	2.1	–	–	–	–	–	–	40	0.24	1.7	–	–	–
																				
			R geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
TNMG 160408E-R	**T5305**	0.8	210	0.40	3.0	–	–	–	195	0.40	3.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	185	0.40	3.0	–	–	–	175	0.40	3.0	–	–	–	–	–	–	35	0.15	1.0
	T9310	0.8	185	0.40	3.0	–	–	–	175	0.40	3.0	–	–	–	–	–	–	35	0.15	1.0
	T9315	0.8	165	0.40	3.0	–	–	–	155	0.40	3.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.8	150	0.40	3.0	–	–	–	140	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	130	0.40	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 160412E-R	**T5315**	1.2	195	0.40	3.0	–	–	–	185	0.40	3.0	–	–	–	–	–	–	35	0.15	1.0
	T9310	1.2	195	0.40	3.0	–	–	–	185	0.40	3.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.2	160	0.40	3.0	–	–	–	150	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	140	0.40	3.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220408E-R	**T9315**	0.8	165	0.40	4.0	–	–	–	155	0.40	4.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.8	145	0.40	4.0	–	–	–	135	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	125	0.40	4.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220412E-R	**T9310**	1.2	185	0.40	4.0	–	–	–	175	0.40	4.0	–	–	–	–	–	–	35	0.15	1.0
	T9315	1.2	170	0.40	4.0	–	–	–	160	0.40	4.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	1.2	155	0.40	4.0	–	–	–	145	0.40	4.0	–	–	–	–	–	–	–	–	–
TNMG 220416E-R	**T9315**	1.6	180	0.40	4.0	–	–	–	170	0.40	4.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	1.6	165	0.40	4.0	–	–	–	155	0.40	4.0	–	–	–	–	–	–	–	–	–
																				
			RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
TNMG 160408E-RM	**T5305**	0.8	245	0.40	3.0	–	–	–	230	0.40	3.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	215	0.40	3.0	–	–	–	200	0.40	3.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	155	0.40	3.0	120	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	145	0.40	3.0	110	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	0.8	210	0.40	3.0	–	–	–	195	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	195	0.40	3.0	–	–	–	185	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	175	0.40	3.0	105	0.36	3.0	165	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	150	0.40	3.0	90	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–

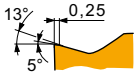
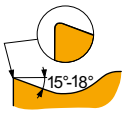
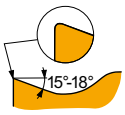
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TNMG 160412E-RM	**T5305**	1.2	255	0.40	3.0	–	–	–	240	0.40	3.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	225	0.40	3.0	–	–	–	210	0.40	3.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	165	0.40	3.0	125	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	155	0.40	3.0	120	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8330	1.2	145	0.40	3.0	85	0.36	3.0	135	0.40	3.0	–	–	–	–	–	–	–	–	–
	T8430	1.2	150	0.40	3.0	80	0.36	3.0	125	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	205	0.40	3.0	–	–	–	190	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.40	3.0	110	0.36	3.0	175	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	160	0.40	3.0	95	0.36	3.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220408E-RM	**T5305**	0.8	235	0.40	4.0	–	–	–	220	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	210	0.40	4.0	–	–	–	195	0.40	4.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	150	0.40	4.0	115	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	140	0.40	4.0	105	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9310	0.8	200	0.40	4.0	–	–	–	190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	190	0.40	4.0	–	–	–	180	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	170	0.40	4.0	100	0.36	4.0	160	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	145	0.40	4.0	85	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220412E-RM	**T5305**	1.2	245	0.40	4.0	–	–	–	230	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	220	0.40	4.0	–	–	–	205	0.40	4.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	160	0.40	4.0	120	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	150	0.40	4.0	115	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	1.2	200	0.40	4.0	–	–	–	190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	180	0.40	4.0	105	0.36	4.0	170	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	155	0.40	4.0	90	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 220416E-RM	**T7325**	1.6	165	0.40	4.0	125	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9315	1.6	210	0.40	4.0	–	–	–	195	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	185	0.40	4.0	110	0.36	4.0	175	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	160	0.40	4.0	95	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 270612E-RM	**T7325**	1.2	110	0.40	6.0	85	0.36	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	120	0.40	6.0	70	0.36	6.0	110	0.40	6.0	–	–	–	–	–	–	–	–	–
TNMG 270616E-RM	**T7325**	1.6	115	0.40	6.0	85	0.36	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9226	1.6	115	0.40	6.0	65	0.36	6.0	105	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	135	0.40	6.0	–	–	–	125	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	125	0.40	6.0	75	0.36	6.0	115	0.40	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	100	0.40	6.0	60	0.36	6.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 270624E-RM	**T7325**	2.4	115	0.50	6.0	85	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	2.4	120	0.50	6.0	70	0.45	6.0	110	0.50	6.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	95	0.50	6.0	55	0.45	6.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 270632E-RM	**T9335**	3.2	90	0.60	6.0	50	0.54	6.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMG 330924E-RM	**T9226**	2.4	100	0.50	10.0	60	0.45	10.0	95	0.50	10.0	–	–	–	–	–	–	–	–	–
	T9335	2.4	90	0.50	10.0	50	0.45	10.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																				
TNMG 160404E-SF	**H07**	0.4	–	–	–	75	0.14	1.3	120	0.15	1.3	390	0.18	1.3	35	0.12	1.0	–	–	–
	T6310	0.4	150	0.15	1.3	105	0.14	1.3	120	0.15	1.3	450	0.18	1.3	45	0.12	1.0	30	0.15	1.0
	T7325	0.4	170	0.17	1.3	130	0.15	1.3	–	–	–	–	–	–	55	0.15	1.0	–	–	–
	T7335	0.4	165	0.17	1.3	125	0.15	1.3	–	–	–	–	–	–	50	0.15	1.0	–	–	–
	T8315	0.4	160	0.15	1.3	95	0.14	1.3	150	0.15	1.3	480	0.18	1.3	40	0.12	1.0	30	0.15	1.0
	T8330	0.4	150	0.15	1.3	90	0.14	1.3	140	0.15	1.3	450	0.18	1.3	35	0.12	1.0	30	0.15	1.0
	T8430	0.4	180	0.15	1.3	95	0.14	1.3	145	0.15	1.3	495	0.18	1.3	35	0.12	1.0	30	0.15	1.0
	T9315	0.4	245	0.15	1.3	–	–	–	230	0.15	1.3	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.4	210	0.17	1.3	125	0.15	1.3	195	0.17	1.3	–	–	–	45	0.15	1.0	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			E																	
			SF geometry with positive design for fine-finish machining of thin walls and continuous cuts.																	
TNMG 160408E-SF	**H07**	0.8	–	–	–	85	0.15	1.3	140	0.17	1.3	445	0.20	1.3	45	0.14	1.0	–	–	–
	T6310	0.8	175	0.17	1.3	125	0.15	1.3	140	0.17	1.3	525	0.20	1.3	50	0.14	1.0	35	0.15	1.0
	T7325	0.8	200	0.17	1.3	155	0.15	1.3	–	–	–	–	–	–	65	0.15	1.0	–	–	–
	T7335	0.8	195	0.17	1.3	150	0.15	1.3	–	–	–	–	–	–	60	0.15	1.0	–	–	–
	T8315	0.8	185	0.17	1.3	110	0.15	1.3	175	0.17	1.3	555	0.20	1.3	45	0.14	1.0	35	0.15	1.0
	T8330	0.8	175	0.17	1.3	105	0.15	1.3	165	0.17	1.3	525	0.20	1.3	40	0.14	1.0	35	0.15	1.0
	T8430	0.8	205	0.17	1.3	110	0.15	1.3	170	0.17	1.3	570	0.20	1.3	45	0.14	1.0	35	0.15	1.0
	T9315	0.8	275	0.17	1.3	–	–	–	260	0.17	1.3	–	–	–	–	–	–	55	0.15	1.0
	T9325	0.8	250	0.17	1.3	150	0.15	1.3	235	0.17	1.3	–	–	–	55	0.15	1.0	–	–	–
TNMG 160412E-SF	**T6310**	1.2	160	0.30	1.3	115	0.27	1.3	125	0.30	1.3	480	0.36	1.3	45	0.21	1.0	30	0.15	1.0
	T7325	1.2	175	0.30	1.3	135	0.27	1.3	–	–	–	–	–	–	55	0.21	1.0	–	–	–
	T9325	1.2	205	0.30	1.3	120	0.27	1.3	190	0.30	1.3	–	–	–	45	0.21	1.0	–	–	–
TNMG 220404E-SF	**T6310**	0.4	145	0.17	1.7	100	0.15	1.7	115	0.17	1.7	435	0.20	1.7	40	0.15	1.4	25	0.15	1.0
	T7325	0.4	160	0.17	1.7	120	0.15	1.7	–	–	–	–	–	–	50	0.15	1.4	–	–	–
	T9325	0.4	205	0.17	1.7	120	0.15	1.7	190	0.17	1.7	–	–	–	45	0.15	1.4	–	–	–
TNMG 220408E-SF	**T6310**	0.8	170	0.17	1.7	120	0.15	1.7	135	0.17	1.7	510	0.20	1.7	50	0.15	1.4	30	0.15	1.0
	T8315	0.8	180	0.17	1.7	105	0.15	1.7	170	0.17	1.7	540	0.20	1.7	45	0.15	1.4	35	0.15	1.0
	T8430	0.8	195	0.17	1.7	105	0.15	1.7	160	0.17	1.7	540	0.20	1.7	40	0.15	1.4	30	0.15	1.0
TNMG 220412E-SF	**T6310**	1.2	155	0.30	1.7	110	0.27	1.7	125	0.30	1.7	465	0.36	1.7	45	0.21	1.4	30	0.15	1.0
	T7325	1.2	170	0.30	1.7	130	0.27	1.7	–	–	–	–	–	–	55	0.21	1.4	–	–	–
	T9325	1.2	205	0.30	1.7	120	0.27	1.7	190	0.30	1.7	–	–	–	45	0.21	1.4	–	–	–
																				
			S																	
			SM geometry with positive design for medium machining, and continuous to interrupted cuts.																	
TNMG 160404E-SM	**T6310**	0.4	135	0.22	1.7	95	0.20	1.7	105	0.22	1.7	405	0.26	1.7	40	0.20	1.4	25	0.15	1.0
	T7325	0.4	150	0.22	1.7	115	0.20	1.7	–	–	–	–	–	–	45	0.20	1.4	–	–	–
	T7335	0.4	145	0.22	1.7	110	0.20	1.7	–	–	–	–	–	–	45	0.20	1.4	–	–	–
	T8330	0.4	135	0.22	1.7	80	0.20	1.7	125	0.22	1.7	405	0.26	1.7	30	0.20	1.4	25	0.15	1.0
	T8430	0.4	145	0.22	1.7	80	0.20	1.7	120	0.22	1.7	405	0.26	1.7	30	0.20	1.4	25	0.15	1.0
	T9315	0.4	210	0.20	1.7	–	–	–	195	0.20	1.7	–	–	–	–	–	–	40	0.15	1.0
	T9325	0.4	185	0.22	1.7	110	0.20	1.7	175	0.22	1.7	–	–	–	40	0.20	1.4	–	–	–
TNMG 160408E-SM	**T6310**	0.8	150	0.25	1.7	105	0.23	1.7	120	0.25	1.7	450	0.30	1.7	45	0.20	1.4	30	0.15	1.0
	T7325	0.8	170	0.25	1.7	130	0.23	1.7	–	–	–	–	–	–	55	0.20	1.4	–	–	–
	T7335	0.8	165	0.25	1.7	125	0.23	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T8330	0.8	150	0.25	1.7	90	0.23	1.7	140	0.25	1.7	450	0.30	1.7	35	0.20	1.4	30	0.15	1.0
	T8430	0.8	170	0.25	1.7	90	0.23	1.7	135	0.25	1.7	465	0.30	1.7	35	0.20	1.4	25	0.15	1.0
	T9315	0.8	230	0.25	1.7	–	–	–	215	0.25	1.7	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	205	0.25	1.7	120	0.23	1.7	190	0.25	1.7	–	–	–	45	0.20	1.4	–	–	–
TNMG 160412E-SM	**T6310**	1.2	155	0.30	1.7	110	0.27	1.7	125	0.30	1.7	465	0.36	1.7	45	0.24	1.4	30	0.15	1.0
	T7325	1.2	170	0.30	1.7	130	0.27	1.7	–	–	–	–	–	–	55	0.24	1.4	–	–	–
	T7335	1.2	165	0.30	1.7	125	0.27	1.7	–	–	–	–	–	–	50	0.24	1.4	–	–	–
	T9325	1.2	205	0.30	1.7	120	0.27	1.7	190	0.30	1.7	–	–	–	45	0.24	1.4	–	–	–
TNMG 220404E-SM	**T6310**	0.4	130	0.24	1.7	90	0.22	1.7	100	0.24	1.7	390	0.29	1.7	35	0.22	1.4	25	0.15	1.0
	T7325	0.4	145	0.24	1.7	110	0.22	1.7	–	–	–	–	–	–	45	0.22	1.4	–	–	–
	T8330	0.4	130	0.24	1.7	75	0.22	1.7	120	0.24	1.7	390	0.29	1.7	30	0.22	1.4	25	0.15	1.0
	T8430	0.4	145	0.24	1.7	80	0.22	1.7	120	0.24	1.7	405	0.29	1.7	30	0.22	1.4	25	0.15	1.0
	T9325	0.4	175	0.24	1.7	105	0.22	1.7	165	0.24	1.7	–	–	–	35	0.22	1.4	–	–	–
TNMG 220408E-SM	**T6310**	0.8	150	0.25	1.7	105	0.23	1.7	120	0.25	1.7	450	0.30	1.7	45	0.20	1.4	30	0.15	1.0
	T7325	0.8	170	0.25	1.7	130	0.23	1.7	–	–	–	–	–	–	55	0.20	1.4	–	–	–
	T7335	0.8	165	0.25	1.7	125	0.23	1.7	–	–	–	–	–	–	50	0.20	1.4	–	–	–
	T8330	0.8	150	0.25	1.7	90	0.23	1.7	140	0.25	1.7	450	0.30	1.7	35	0.20	1.4	30	0.15	1.0
	T8430	0.8	170	0.25	1.7	90	0.23	1.7	135	0.25	1.7	465	0.30	1.7	35	0.20	1.4	25	0.15	1.0
	T9315	0.8	230	0.25	1.7	–	–	–	215	0.25	1.7	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	205	0.25	1.7	120	0.23	1.7	190	0.25	1.7	–	–	–	45	0.20	1.4	–	–	–

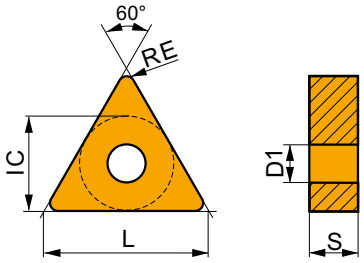
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
		[mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
			S																	
			SM geometry with positive design for medium machining, and continuous to interrupted cuts.																	
TNMG 220412E-SM	**T6310**	1.2	■ 155	0.30	1.7	■ 110	0.27	1.7	■ 125	0.30	1.7	◪ 465	0.36	1.7	■ 45	0.24	1.4	◪ 30	0.15	1.0
	T7325	1.2	◪ 170	0.30	1.7	■ 130	0.27	1.7	–	–	–	–	–	–	■ 55	0.24	1.4	–	–	–
	T7335	1.2	◪ 165	0.30	1.7	■ 125	0.27	1.7	–	–	–	–	–	–	■ 50	0.24	1.4	–	–	–
	T9315	1.2	■ 225	0.30	1.7	–	–	–	◪ 210	0.30	1.7	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	1.2	■ 205	0.30	1.7	■ 120	0.27	1.7	◪ 190	0.30	1.7	–	–	–	◪ 45	0.24	1.4	–	–	–
			E																	
			ER-SI geometry with positive right-handed design for fine-finish to semi-rough machining, and continuous cuts.																	
TNMG 160404ER-SI	**T7325**	0.4	◪ 190	0.20	1.5	■ 145	0.18	1.5	–	–	–	–	–	–	◪ 60	0.18	1.2	–	–	–
	T7335	0.4	◪ 180	0.20	1.5	■ 140	0.18	1.5	–	–	–	–	–	–	◪ 55	0.18	1.2	–	–	–
	T8315	0.4	◪ 175	0.20	1.5	■ 105	0.18	1.5	–	–	–	◪ 525	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T8330	0.4	■ 165	0.20	1.5	■ 95	0.18	1.5	–	–	–	◪ 495	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T8430	0.4	■ 185	0.20	1.5	■ 100	0.18	1.5	–	–	–	◪ 510	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T9325	0.4	■ 230	0.20	1.5	■ 135	0.18	1.5	–	–	–	–	–	–	◪ 50	0.18	1.2	–	–	–
	T9335	0.4	■ 195	0.20	1.5	■ 115	0.18	1.5	–	–	–	–	–	–	◪ 40	0.18	1.2	–	–	–
TNMG 160408ER-SI	**T7325**	0.8	◪ 190	0.35	1.5	■ 145	0.32	1.5	–	–	–	–	–	–	◪ 60	0.25	1.2	–	–	–
	T7335	0.8	◪ 180	0.35	1.5	■ 140	0.32	1.5	–	–	–	–	–	–	◪ 55	0.25	1.2	–	–	–
	T8315	0.8	◪ 175	0.35	1.5	■ 105	0.32	1.5	–	–	–	◪ 525	0.42	1.5	◪ 40	0.25	1.2	–	–	–
	T8330	0.8	■ 170	0.35	1.5	■ 100	0.32	1.5	–	–	–	◪ 510	0.42	1.5	◪ 40	0.25	1.2	–	–	–
	T8430	0.8	■ 180	0.35	1.5	■ 95	0.32	1.5	–	–	–	◪ 495	0.42	1.5	◪ 35	0.25	1.2	–	–	–
	T9325	0.8	■ 215	0.35	1.5	■ 125	0.32	1.5	–	–	–	–	–	–	◪ 45	0.25	1.2	–	–	–
	T9335	0.8	■ 190	0.35	1.5	■ 110	0.32	1.5	–	–	–	–	–	–	◪ 40	0.25	1.2	–	–	–
			E																	
			EL-SI geometry with positive left-handed design for fine-finish to semi-rough machining, and continuous cuts.																	
TNMG 160404EL-SI	**T7325**	0.4	◪ 190	0.20	1.5	■ 145	0.18	1.5	–	–	–	–	–	–	◪ 60	0.18	1.2	–	–	–
	T7335	0.4	◪ 180	0.20	1.5	■ 140	0.18	1.5	–	–	–	–	–	–	◪ 55	0.18	1.2	–	–	–
	T8315	0.4	◪ 175	0.20	1.5	■ 105	0.18	1.5	–	–	–	◪ 525	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T8330	0.4	■ 165	0.20	1.5	■ 95	0.18	1.5	–	–	–	◪ 495	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T8430	0.4	■ 185	0.20	1.5	■ 100	0.18	1.5	–	–	–	◪ 510	0.24	1.5	◪ 40	0.18	1.2	–	–	–
	T9325	0.4	■ 230	0.20	1.5	■ 135	0.18	1.5	–	–	–	–	–	–	◪ 50	0.18	1.2	–	–	–
	T9335	0.4	■ 195	0.20	1.5	■ 115	0.18	1.5	–	–	–	–	–	–	◪ 40	0.18	1.2	–	–	–
TNMG 160408EL-SI	**T7325**	0.8	◪ 190	0.35	1.5	■ 145	0.32	1.5	–	–	–	–	–	–	◪ 60	0.25	1.2	–	–	–
	T7335	0.8	◪ 180	0.35	1.5	■ 140	0.32	1.5	–	–	–	–	–	–	◪ 55	0.25	1.2	–	–	–
	T8315	0.8	◪ 175	0.35	1.5	■ 105	0.32	1.5	–	–	–	◪ 525	0.42	1.5	◪ 40	0.25	1.2	–	–	–
	T8330	0.8	■ 170	0.35	1.5	■ 100	0.32	1.5	–	–	–	◪ 510	0.42	1.5	◪ 40	0.25	1.2	–	–	–
	T8430	0.8	■ 180	0.35	1.5	■ 95	0.32	1.5	–	–	–	◪ 495	0.42	1.5	◪ 35	0.25	1.2	–	–	–
	T9325	0.8	■ 215	0.35	1.5	■ 125	0.32	1.5	–	–	–	–	–	–	◪ 45	0.25	1.2	–	–	–
	T9335	0.8	■ 190	0.35	1.5	■ 110	0.32	1.5	–	–	–	–	–	–	◪ 40	0.25	1.2	–	–	–

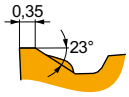
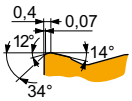
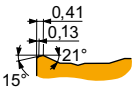
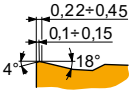
TNMM

PRAMET

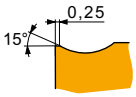
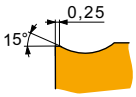
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.50	4.76
2204	12.700	5.16	22.00	4.76
2706	15.875	6.35	27.50	6.35



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
DR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TNMM 160408E-DR	**T9325**	0.8	175	0.40	4.0	105	0.36	4.0	165	0.40	4.0	–	–	–	–	–	–	–	–	–
TNMM 220408E-DR	**T9325**	0.8	175	0.40	4.0	105	0.36	4.0	165	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	155	0.40	4.0	90	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMM 220412E-DR	**T9315**	1.2	205	0.40	4.0	–	–	–	190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	185	0.40	4.0	110	0.36	4.0	175	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	160	0.40	4.0	95	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMM 220416E-DR	**T9325**	1.6	195	0.40	4.0	115	0.36	4.0	185	0.40	4.0	–	–	–	–	–	–	–	–	–
TNMM 270616E-DR	**T9325**	1.6	135	0.40	4.0	80	0.36	4.0	125	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	110	0.40	4.0	65	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
HR geometry for rough to heavy-rough machining, and continuous to interrupted cuts.																				
TNMM 270616E-HR	**T9325**	1.6	90	0.60	7.0	50	0.54	7.0	85	0.60	7.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	75	0.60	7.0	45	0.54	7.0	–	–	–	–	–	–	–	–	–	–	–	–
TNMM 270624E-HR	**T9226**	2.4	80	0.65	7.0	45	0.59	7.0	75	0.65	7.0	–	–	–	–	–	–	–	–	–
																				
NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TNMM 160408E-NR2	**T9325**	0.8	165	0.40	3.0	95	0.36	3.0	155	0.40	3.0	–	–	–	35	0.28	2.4	–	–	–
TNMM 220408E-NR2	**T7325**	0.8	145	0.40	4.0	110	0.36	4.0	–	–	–	–	–	–	45	0.28	3.2	–	–	–
	T9325	0.8	160	0.40	4.0	95	0.36	4.0	150	0.40	4.0	–	–	–	35	0.28	3.2	–	–	–
TNMM 220412E-NR2	**T7325**	1.2	150	0.40	4.0	115	0.36	4.0	–	–	–	–	–	–	45	0.32	3.2	–	–	–
	T8330	1.2	135	0.40	4.0	80	0.36	4.0	125	0.40	4.0	–	–	–	30	0.32	3.2	–	–	–
	T8430	1.2	140	0.40	4.0	75	0.36	4.0	115	0.40	4.0	–	–	–	30	0.32	3.2	–	–	–
	T9325	1.2	170	0.40	4.0	100	0.36	4.0	160	0.40	4.0	–	–	–	35	0.32	3.2	–	–	–
																				
OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
TNMM 160408E-OR	**T9315**	0.8	185	0.40	3.0	–	–	–	175	0.40	3.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	165	0.40	3.0	95	0.36	3.0	155	0.40	3.0	–	–	–	35	0.28	2.4	–	–	–
TNMM 160412E-OR	**T9325**	1.2	175	0.40	3.0	105	0.36	3.0	165	0.40	3.0	–	–	–	35	0.32	2.4	–	–	–
TNMM 220408E-OR	**T9315**	0.8	180	0.40	4.0	–	–	–	170	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	160	0.40	4.0	95	0.36	4.0	150	0.40	4.0	–	–	–	35	0.32	3.2	–	–	–
	T9335	0.8	140	0.40	4.0	80	0.36	4.0	–	–	–	–	–	–	30	0.32	3.2	–	–	–
TNMM 220412E-OR	**T9325**	1.2	175	0.40	3.0	105	0.36	3.0	165	0.40	3.0	–	–	–	35	0.32	2.4	–	–	–
	T9335	1.2	150	0.40	3.0	90	0.36	3.0	–	–	–	–	–	–	30	0.32	2.4	–	–	–

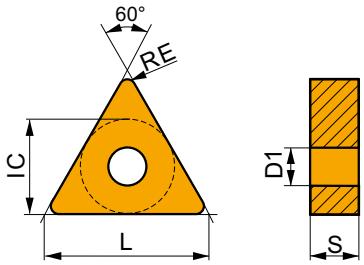
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			ER geometry with right-handed design for medium to semi-rough machining, and continuous cuts.																	
TNMM 220412ER	**T9335**	1.2	■ 190	0.35	2.1	■ 110	0.32	2.1	–	–	–	–	–	–	◪ 40	0.25	1.7	–	–	–
																				
			EL geometry with left handed design for medium to semi-rough machining, and continuous cuts.																	
TNMM 220412EL	**T9335**	1.2	■ 190	0.35	2.1	■ 110	0.32	2.1	–	–	–	–	–	–	◪ 40	0.25	1.7	–	–	–

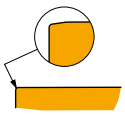
TNGA CER

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.50	4.76



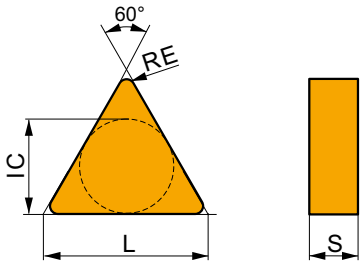
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			For machining with high speeds and continuous cuts.																	
TNGA 160408 T01020	**TC100**	0.8	–	–	–	–	–	–	◪ 475	0.20	1.5	–	–	–	–	–	–	–	–	–
TNGA 160412 T01020	**TC100**	1.2	–	–	–	–	–	–	◪ 500	0.20	1.5	–	–	–	–	–	–	–	–	–

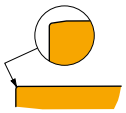
TNGN CER

PRAMET

	IC [mm]	L [mm]	S [mm]
1604	9.525	16.50	4.76
1607	9.525	16.50	7.94



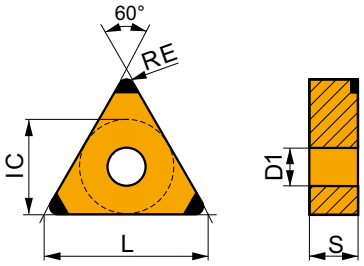
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC T																	
			For machining with high speeds and continuous cuts.																	
TNGN 160408 T01020	**TC100**	0.8	–	–	–	–	–	–	475	0.20	1.5	–	–	–	–	–	–	–	–	–
TNGN 160412 T01020	**TC100**	1.2	–	–	–	–	–	–	500	0.20	1.5	–	–	–	–	–	–	–	–	–
TNGN 160708 T02020	**TC100**	0.8	–	–	–	–	–	–	475	0.20	1.5	–	–	–	–	–	–	–	–	–

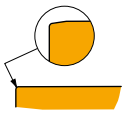
TNGA CBN

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.50	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC S																	
			For finish machining and continuous cuts.																	
TNGA 160408S01020C	**TB310**	0.8	–	–	–	–	–	–	450	0.15	0.6	–	–	–	115	0.11	0.5	95	0.15	1.0

DTFN(RL) EXT

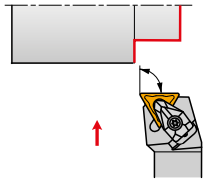
P M K N S H

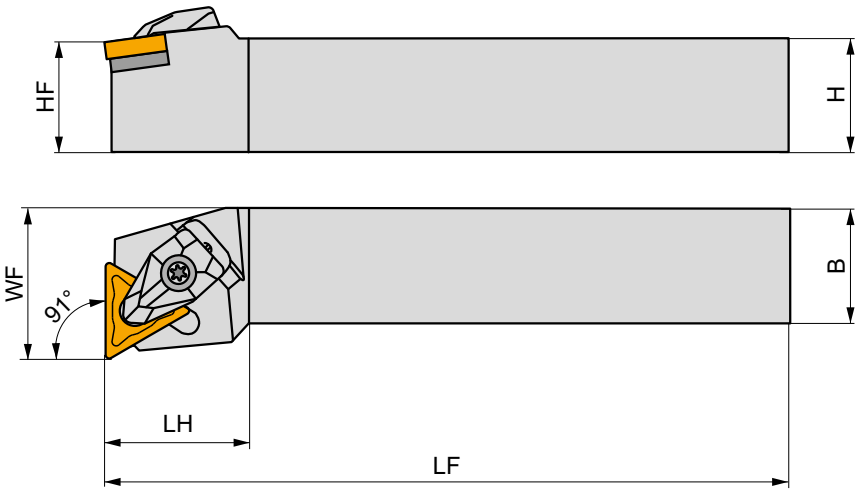
PRAMET

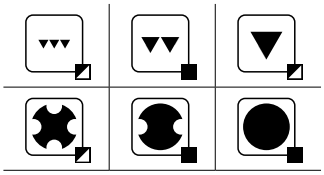
D

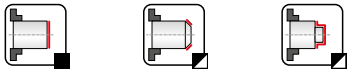
External Double Clamp Holder with 91° (Face) Cutting Angle for TN.. Insert

External Right/Left hand double clamp tool holder with 91° cutting angle. Suited for face turning with shoulder and chamfering with negative TN.. 16 or 22 size inserts. Available in 20x20 and 25x25 mm shank. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	DTFNR 2020 K 16	20	20	20	25	125	23.6	-6	-6	0.43	GI024	DT16
	DTFNR 2525 M 16	25	25	25	32	150	23.6	-6	-6	0.77	GI024	DT16
	DTFNR 2525 M 22	25	25	25	32	150	30.5	-6	-6	0.79	GI025	DT22
L	DTFNL 2020 K 16	20	20	20	25	125	23.6	-6	-6	0.43	GI024	DT16
	DTFNL 2525 M 16	25	25	25	32	150	23.6	-6	-6	0.76	GI024	DT16
	DTFNL 2525 M 22	25	25	25	32	150	30.5	-6	-6	0.79	GI025	DT22

GI024	TN.. 1604..
GI025	TN.. 2204..

		Nm			
DT16	DCS 09	1.7	DTS 315-02	US 2004-T09P	FLAG T09P
DT22	DCS 12	3.9	DTS 315-04	US 2002-T15P	FLAG T15P/3,5

DTGN(RL) EXT

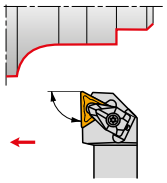
P M K N S H

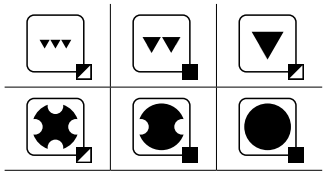
PRAMET

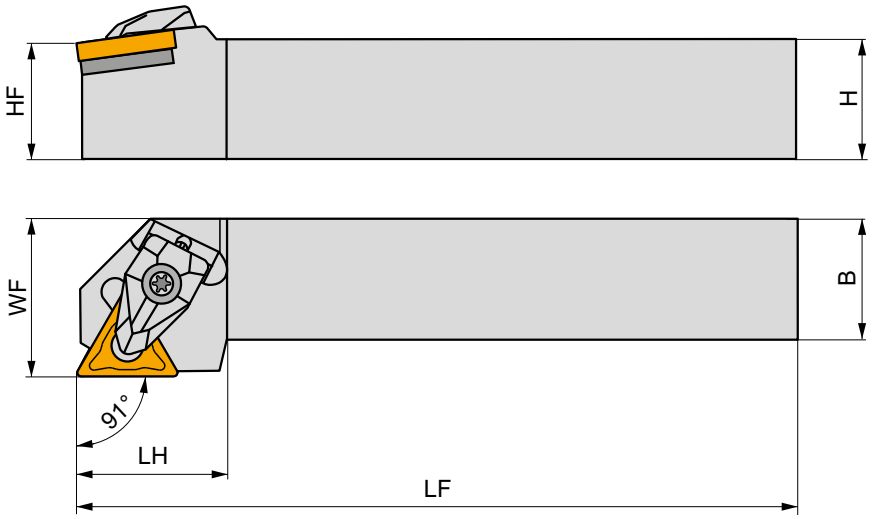
D

External Double Clamp Holder with 91° Cutting Angle for TN.. Insert

External Right/Left hand double clamp tool holder with 91° cutting angle. Suited for longitudinal turning with shoulder, taper turning and chamfering with negative TN.. 16 or 22 size inserts. Available in 20x20 up to 32x32 mm shank. Body treated for longer tool life.










	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	DTGNR 2020 K 16	20	20	20	25	125	25.4	-6	-6	0.43	GI024	DT16
	DTGNR 2525 M 16	25	25	25	32	150	24.6	-6	-6	0.76	GI024	DT16
	DTGNR 2525 M 22	25	25	25	32	150	32.1	-6	-6	0.83	GI025	DT22
	DTGNR 3232 P 22	32	32	32	40	170	33.1	-6	-6	1.42	GI025	DT22
L	DTGNL 2020 K 16	20	20	20	25	125	25.4	-6	-6	0.44	GI024	DT16
	DTGNL 2525 M 16	25	25	25	32	150	24.6	-6	-6	0.78	GI024	DT16
	DTGNL 2525 M 22	25	25	25	32	150	32.1	-6	-6	0.78	GI025	DT22
	DTGNL 3232 P 22	32	32	32	40	170	33.1	-6	-6	1.42	GI025	DT22

GI024	TN.. 1604..
GI025	TN.. 2204..

DT16	DCS 09	1.7	DTS 315-02	US 2004-T09P	FLAG T09P
DT22	DCS 12	3.9	DTS 315-04	US 2002-T15P	FLAG T15P/3,5

MTJN(RL) EXT

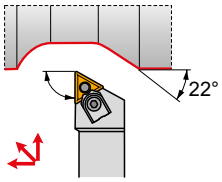
P M K N S H

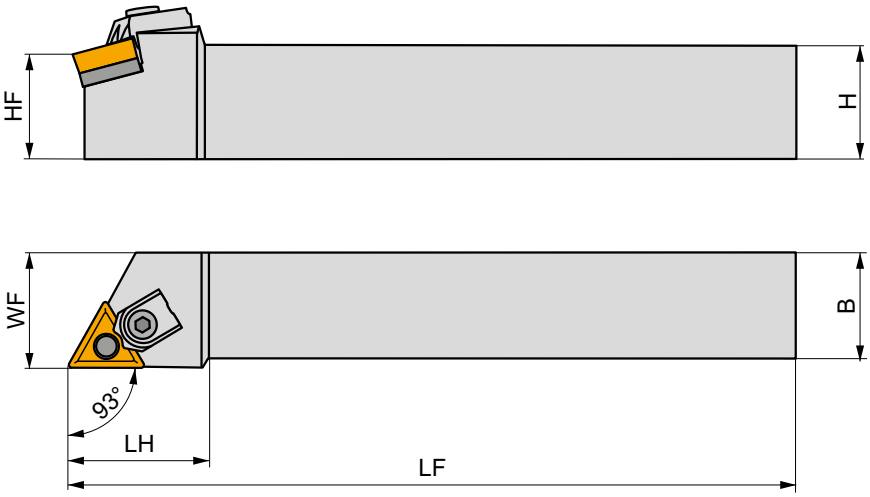
PRAMET

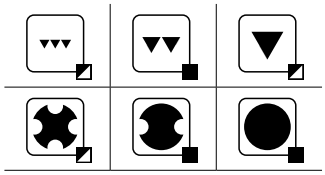
M

External Multi-Clamp Holder with 93° Cutting Angle for TN.. Insert

External Right/Left hand multi-clamp tool holder with 93° cutting angle. Suited for longitudinal turning with shoulder, taper and copy turning up to 22°, and chamfering with negative TN.. 16 or 22 size inserts. Available in 20x20 up to 32x32 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg	GI	MT
R	**MTJNR 2020 K 16**	20	20	20	25	125	34	-6	-6	0.42	GI024	MT16
	MTJNR 2525 M 16	25	25	25	32	150	34	-6	-6	0.73	GI024	MT16
	MTJNR 3232 P 22	32	32	32	40	175	42	-6	-6	1.37	GI025	MT22
L	**MTJNL 2020 K 16**	20	20	20	25	125	34	-6	-6	0.43	GI024	MT16
	MTJNL 2525 M 16	25	25	25	32	150	34	-6	-6	0.75	GI024	MT16
	MTJNL 3232 P 22	32	32	32	40	175	42	-6	-6	1.38	GI025	MT22

GI024	TN.. 1604..
GI025	TN.. 2204..

		Nm				
MT16	UE 16	3.0	MTN 160312	UC 52	HS 93	HXK 5
MT22	UE 22	5.0	MTN 220612	UC 53	HS 94	HXK 5

PTFN(RL) EXT

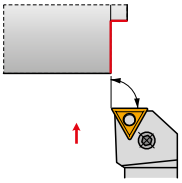
P M K N S H

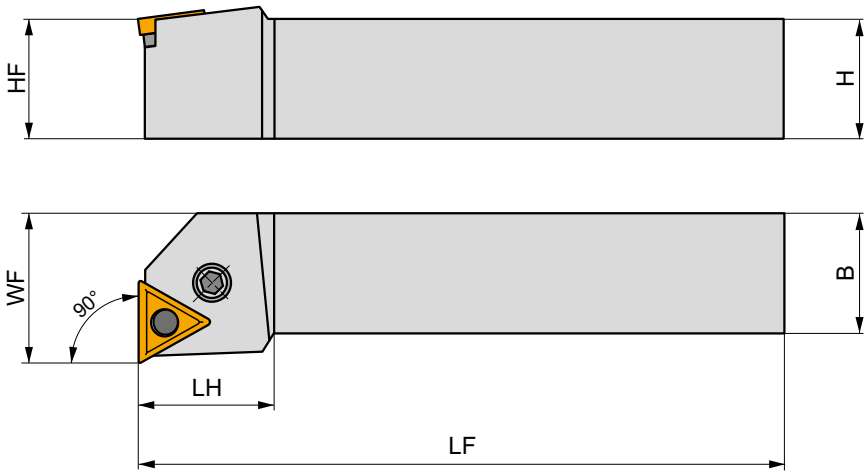
PRAMET

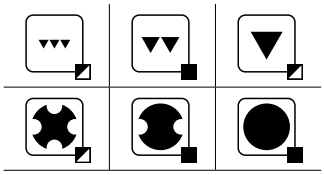
P

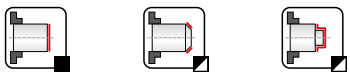
External Lever Lock Holder with 90° (Face) Cutting Angle for TN.. Insert

External Right/Left hand lever lock tool holder with 90° cutting angle. Suited for face turning with shoulder and chamfering with negative TN.. 16, 22 or 27 size inserts. Available in 16x16 up to 40x40 mm shank. Body treated for longer tool life.









	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PTFNR 1616 H 16**	16	16	16	20	100	32	-6	-6	0.23	GI024	PT11
	PTFNR 2020 K 16	20	20	20	25	125	32	-6	-6	0.44	GI024	PT10
	PTFNR 2525 M 16	25	25	25	32	150	32	-6	-6	0.76	GI024	PT10
	PTFNR 2525 M 22	25	25	25	32	150	36	-6	-6	0.79	GI025	PT20
	PTFNR 3225 P 22	32	25	32	32	170	36	-6	-6	1.05	GI025	PT20
	PTFNR 4040 R 27	40	40	40	50	200	40	-6	-6	2.55	GI077	PT40
L	**PTFNL 1616 H 16**	16	16	16	20	100	32	-6	-6	0.24	GI024	PT11
	PTFNL 2020 K 16	20	20	20	25	125	32	-6	-6	0.43	GI024	PT10
	PTFNL 2525 M 16	25	25	25	32	150	32	-6	-6	0.65	GI024	PT10
	PTFNL 2525 M 22	25	25	25	32	150	36	-6	-6	0.79	GI025	PT20
	PTFNL 3225 P 22	32	25	32	32	170	36	-6	-6	1.14	GI025	PT20
	PTFNL 4040 R 27	40	40	40	50	200	40	-6	-6	2.55	GI077	PT40

GI024	TN.. 1604..
GI025	TN.. 2204..
GI077	TN.. 2706..

				Nm					
PT10	TNU 160308	PU 01	US 34	5.0	M 6x0.75	19	NT 04	MT 04	HXK 3
PT11	TNU 160308	PU 01	US 46	5.0	M 6x0.75	13.2	NT 04	MT 04	HXK 3
PT20	TNU 220312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PT40	TNU 270416	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4

PTGN(RL) EXT

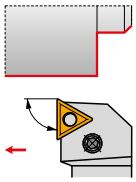
P M K N S H

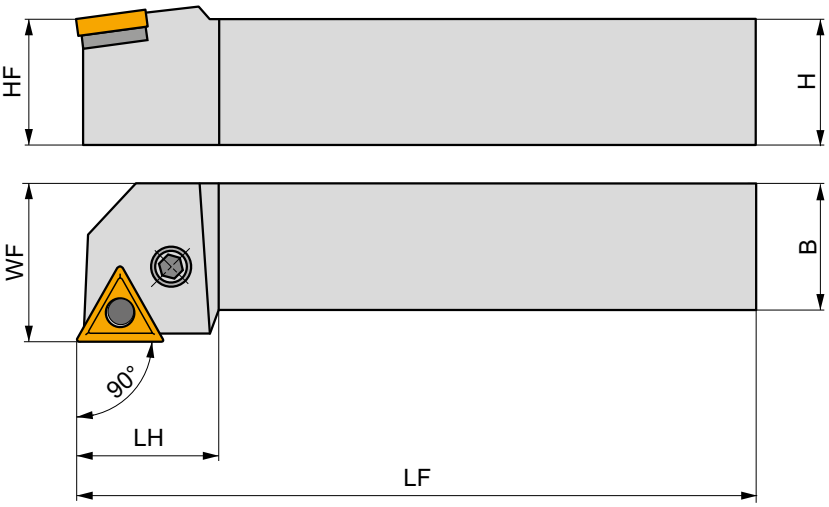
PRAMET

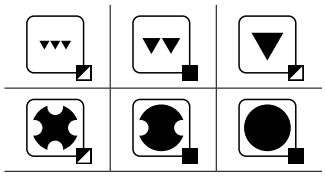
P

External Lever Lock Holder with 90° Cutting Angle for TN.. Insert

External Right/Left hand lever lock tool holder with 90° cutting angle. Suited for longitudinal turning with shoulder, taper turning and chamfering with negative TN.. 16, 22 or 27 size inserts. Available in 16x16 up to 40x40 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PTGNR 1616 H 16	16	16	16	20	100	32	-6	-6	0.24	GI024	PT11
	PTGNR 2020 K 16	20	20	20	25	125	32	-6	-6	0.40	GI024	PT10
	PTGNR 2525 M 16	25	25	25	32	150	32	-6	-6	0.73	GI024	PT10
	PTGNR 2525 M 22	25	25	25	32	150	36	-6	-6	0.75	GI025	PT20
	PTGNR 3225 P 22	32	25	32	32	170	36	-6	-6	1.11	GI025	PT20
	PTGNR 3232 P 22	32	32	32	40	170	36	-6	-6	1.39	GI025	PT20
	PTGNR 4040 R 27	40	40	40	50	200	40	-6	-6	2.55	GI077	PT40
L	PTGNL 1616 H 16	16	16	16	20	100	32	-6	-6	0.25	GI024	PT11
	PTGNL 2020 K 16	20	20	20	25	125	32	-6	-6	0.40	GI024	PT10
	PTGNL 2525 M 16	25	25	25	32	150	32	-6	-6	0.77	GI024	PT10
	PTGNL 2525 M 22	25	25	25	32	150	36	-6	-6	0.79	GI025	PT20
	PTGNL 3225 P 22	32	25	32	32	170	36	-6	-6	1.11	GI025	PT20
	PTGNL 3232 P 22	32	32	32	40	170	36	-6	-6	1.40	GI025	PT20
	PTGNL 4040 R 27	40	40	40	50	200	40	-6	-6	2.40	GI077	PT40

GI024	TN.. 1604..
GI025	TN.. 2204..
GI077	TN.. 2706..

				Nm					
PT10	TNU 160308	PU 01	US 34	5.0	M 6x0.75	19	NT 04	MT 04	HXK 3
PT11	TNU 160308	PU 01	US 46	5.0	M 6x0.75	13.2	NT 04	MT 04	HXK 3
PT20	TNU 220312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PT40	TNU 270416	PU 04	US 36	6.0	M 8x1	26	NT 07	MT 07	HXK 4

PTTN(RL) EXT

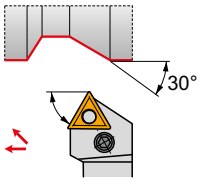
P M K N S H

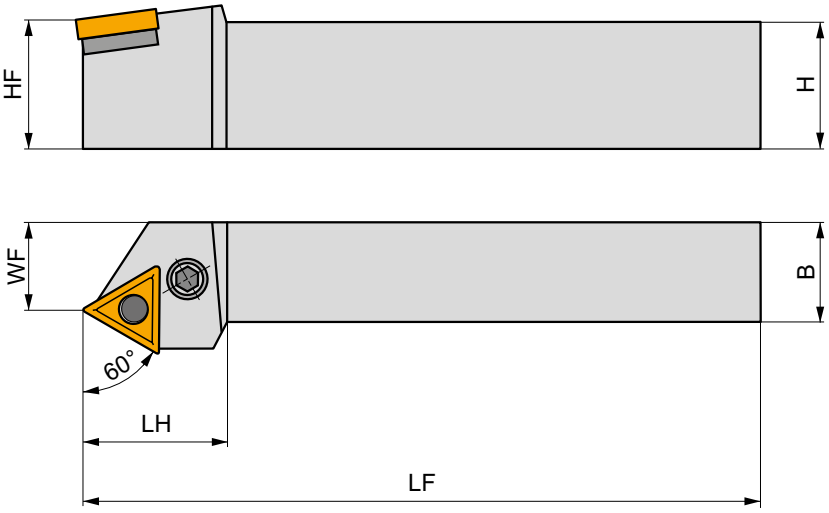
PRAMET

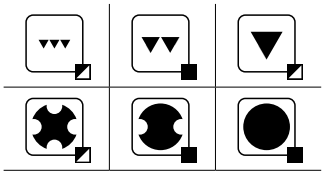
P

External Lever Lock Holder with 60° Cutting Angle for TN.. Insert

External Right/Left hand lever lock tool holder with 60° cutting angle. Suited for longitudinal turning with shoulder, taper and copy turning up to 30° and chamfering with negative TN.. 16 and 22 size inserts. Available in 20x20 up to 32x25 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**PTTNR 2020 K 16**	20	20	20	17	125	32	-6	-6	0.43	GI024	PT10
	PTTNR 2525 M 16	25	25	25	22	150	32	-6	-6	0.63	GI024	PT10
	PTTNR 2525 M 22	25	25	25	22	150	36	-6	-6	0.73	GI025	PT20
	PTTNR 3225 P 22	32	25	32	22	170	36	-6	-6	1.07	GI025	PT20
L	**PTTNL 2020 K 16**	20	20	20	17	125	32	-6	-6	0.38	GI024	PT10
	PTTNL 3225 P 22	32	25	32	22	170	36	-6	-6	1.04	GI025	PT20

GI024	TN.. 1604..
GI025	TN.. 2204..

				Nm					
PT10	TNU 160308	PU 01	US 34	5.0	M 6x0.75	19	NT 04	MT 04	HXK 3
PT20	TNU 220312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4

C.-DTJN(RL) EXT

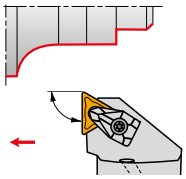
P M K N S H

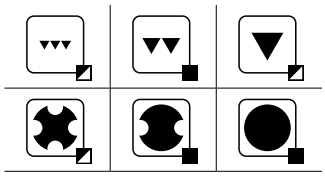
PRAMET

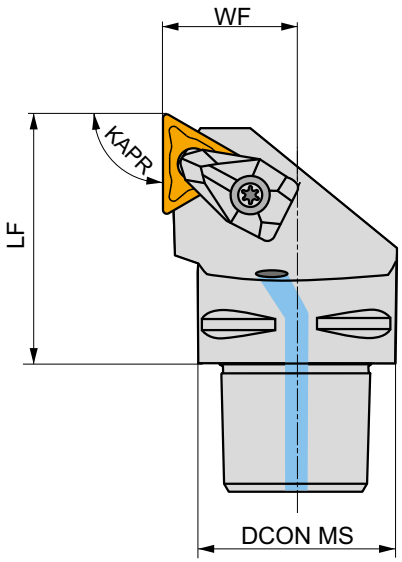
D

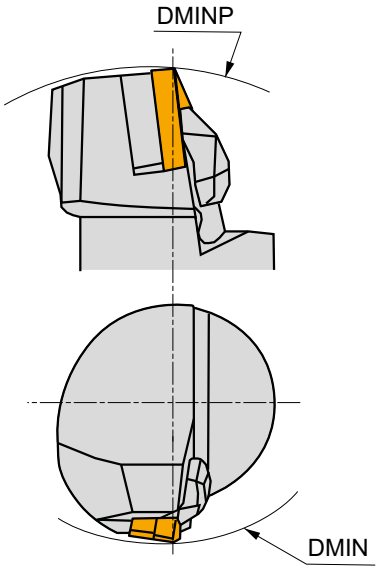
External PSC Quick Change Tool, Double Clamp, 93° Cutting Angle, TN.. Insert

External Right/Left hand double clamp tool, through coolant, with 93° cutting angle for longitudinal turning with shoulder, taper turning and chamfering with negative TN.. 16 size inserts. Available with PSC (Polygon Shank Coupling) C4 and C5 shank. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-DTJNR-27050-16	40	110	140	27	50	93	-6	-6	✓	0.43	GI024	C-DT16
	C5-DTJNR-35060-16	50	110	165	35	60	93	-6	-6	✓	0.79	GI024	C-DT16
L	C4-DTJNL-27050-16	40	110	140	27	50	93	-6	-6	✓	0.44	GI024	C-DT16
	C5-DTJNL-35060-16	50	110	165	35	60	93	-6	-6	✓	0.79	GI024	C-DT16

GI024	TN.. 1604..

C-DT16	DCS 09	1.7	DTS 315-02	US 2004-T09P	FLAG T09P	CN 045-01

DTFN(RL) INT

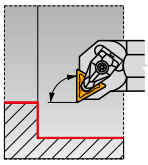
P M K N S H

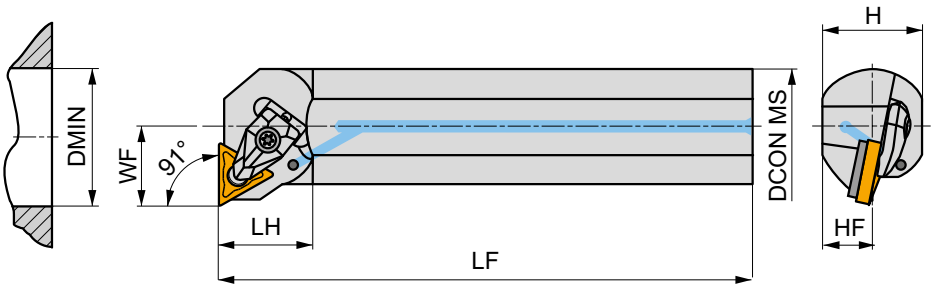
PRAMET

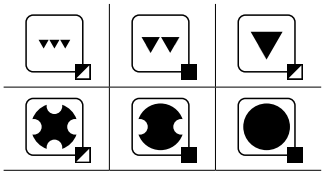
D

Internal Double Clamp Holder with 91° Cutting Angle for TN.. Insert

Internal Right/Left hand double clamp boring bar, through coolant, 91° cutting angle for TN.. 16 and 22 inserts. Minimum internal turning diameter Ø32 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Available with shank size Ø25 up to Ø40 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	A25T-DTFNR 16	25	32	17	23	11.5	300	32	-12	-6	✓	0.96	GI024	DTI16
	A32T-DTFNR 16	32	40	22	30	15	300	33	-10	-6	✓	1.67	GI024	DTI16
	A40T-DTFNR 22	40	50	27	37	18.5	300	36	-13	-6	✓	2.58	GI025	DT22
L	A25T-DTFNL 16	25	32	17	23	11.5	300	32	-12	-6	✓	0.96	GI024	DTI16
	A32T-DTFNL 16	32	40	22	30	15	300	33	-10	-6	✓	1.67	GI024	DTI16
	A40T-DTFNL 22	40	50	27	37	18.5	300	36	-13	-6	✓	2.58	GI025	DT22

GI024	TN.. 1604..
GI025	TN.. 2204..

		Nm			
DT22	DCS 12	3.9	DTS 315-04	US 2002-T15P	FLAG T15P/3,5
DTI16	DCS 09	1.7	DTS 316-01	US 2004-T09P	FLAG T09P

PTFN(RL) INT

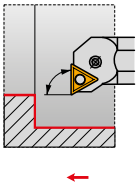
P M K N S H

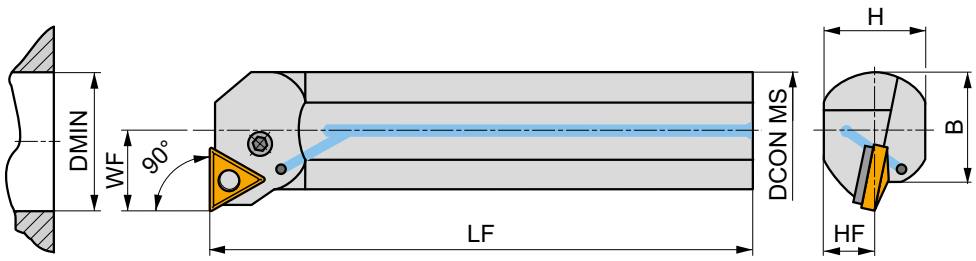
PRAMET

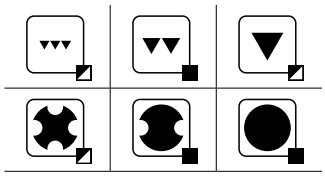
P

Internal Lever Lock Holder with 90° Cutting Angle for TN.. Insert

Internal Right/Left hand lever lock boring bar, through coolant available, 90° cutting angle for TN.. 16 and 22 inserts. Minimum internal turning diameter Ø32 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Ø25 up to Ø40 mm shanks available. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A25R-PTFNR 16	25	32	17	23	23	200	-12	-6	✓	0.74	GI024	PT11
	A32S-PTFNR 16	32	40	22	30	30	250	-12	-6	✓	1.49	GI024	PT10
	A40T-PTFNR 22	40	50	27	38	38	300	-12	-6	✓	2.58	GI025	PT20
L	A25R-PTFNL 16	25	32	17	23	23	200	-12	-6	✓	0.74	GI024	PT11
	A32S-PTFNL 16	32	40	22	30	30	250	-12	-6	✓	1.48	GI024	PT10
	A40T-PTFNL 22	40	50	27	38	38	300	-12	-6	✓	2.90	GI025	PT20

GI024	TN.. 1604..
GI025	TN.. 2204..

				Nm					
PT10	TNU 160308	PU 01	US 34	5.0	M 6x0.75	19	NT 04	MT 04	HXK 3
PT11	TNU 160308	PU 01	US 46	5.0	M 6x0.75	13.2	NT 04	MT 04	HXK 3
PT20	TNU 220312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4

C.-DTFN(RL) INT

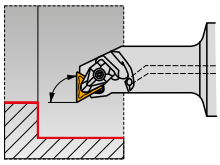
P M K N S H

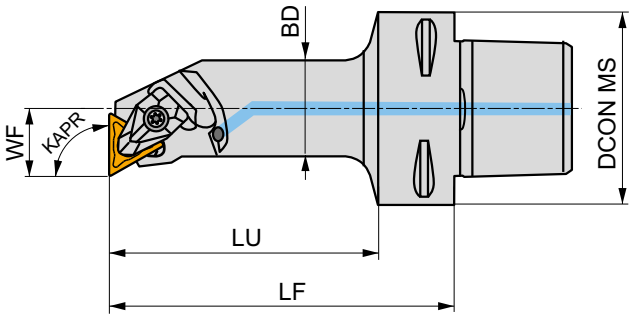
PRAMET

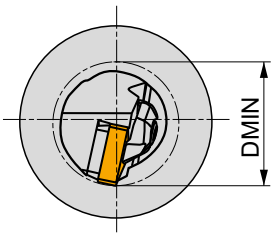
D

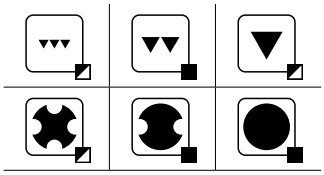
Internal PSC Quick Change Tool, Double Clamp, 91° Cutting Angle, TN.. Insert

Internal Right/Left hand double clamp tool, through coolant, with 91° cutting angle for a wide range of internal turning applications with TN.. 16 inserts, minimum turning diameter Ø32mm. PSC shank (Polygon Shank Coupling) size C4 with turning length of 68 mm. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-DTFNR-17090-16	40	32	17	90	68	25	91	-12	-6	✓	0.51	GI024	DTI16

GI024	TN.. 1604..

DTI16	DCS 09	1.7	DTS 316-01	US 2004-T09P	FLAG T09P

VN 16

CARBIDE INSERTS

VNMG

356

CER AND CBN INSERTS

VNGA CER

359

VNGA CBN

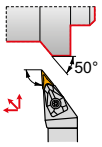
359

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
VNMG 160404E-SF	DVJNL 2020 K 16

ISO TURNING – EXTERNAL

DVJN(RL) EXT

93° | VN.. | 16

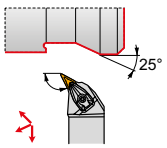


20×20 / 32×25

360 | 356 – 359

DVPN(RL) EXT

62°30′ | VN.. | 16

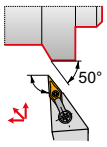


20×20 / 32×25

361 | 356 – 359

MVJN(RL) EXT

93° | VN.. | 16

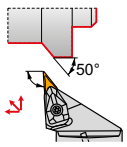


20×20 / 32×25

362 | 356 – 359

C.-DVJN(RL) EXT

93° | VN.. | 16



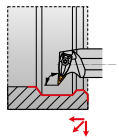
C4 / C6

363 | 356 – 359

ISO TURNING – INTERNAL

DVUN(RL) INT

VN.. | 16



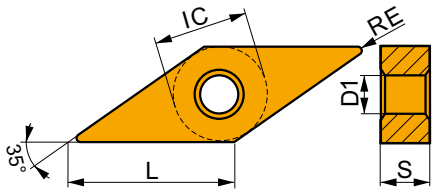
50

364 | 356 – 359

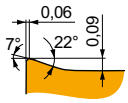
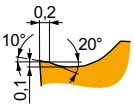
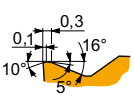
VNMG

PRAMET

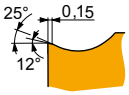
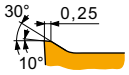
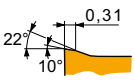
	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.60	4.76



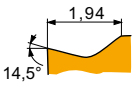
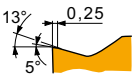
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			FF geometry with highly positive design for fine-finish machining and continuous to slightly interrupted cuts.																	
VNMG 160404E-FF	**T7325**	0.4	165	0.12	1.0	125	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	150	0.12	1.0	90	0.11	1.0	140	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8330	0.4	140	0.12	1.0	80	0.11	1.0	130	0.12	1.0	–	–	–	–	–	–	–	–	–
	T8430	0.4	175	0.12	1.0	95	0.11	1.0	140	0.12	1.0	–	–	–	–	–	–	–	–	–
																				
			FM geometry with positive design for finish to semi-rough machining and continuous to slightly interrupted cuts.																	
VNMG 160404E-FM	**T7325**	0.4	140	0.20	1.2	105	0.18	1.2	–	–	–	–	–	–	45	0.20	1.0	–	–	–
	T8330	0.4	120	0.20	1.2	70	0.18	1.2	110	0.20	1.2	–	–	–	30	0.14	1.0	–	–	–
	T8430	0.4	135	0.20	1.2	75	0.18	1.2	110	0.20	1.2	–	–	–	25	0.14	1.0	–	–	–
	T9310	0.4	210	0.20	1.2	–	–	–	195	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.4	190	0.20	1.2	–	–	–	180	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	170	0.20	1.2	100	0.18	1.2	160	0.20	1.2	–	–	–	35	0.20	1.0	–	–	–
VNMG 160408E-FM	**T7325**	0.8	160	0.20	1.4	120	0.18	1.4	–	–	–	–	–	–	50	0.16	1.1	–	–	–
	T8330	0.8	145	0.20	1.4	85	0.18	1.4	135	0.20	1.4	–	–	–	35	0.16	1.1	–	–	–
	T8430	0.8	165	0.20	1.4	90	0.18	1.4	135	0.20	1.4	–	–	–	35	0.16	1.1	–	–	–
	T9310	0.8	245	0.20	1.4	–	–	–	230	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9315	0.8	220	0.20	1.4	–	–	–	205	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.8	200	0.20	1.4	120	0.18	1.4	190	0.20	1.4	–	–	–	45	0.16	1.1	–	–	–
VNMG 160412E-FM	**T7325**	1.2	165	0.22	1.4	125	0.20	1.4	–	–	–	–	–	–	50	0.18	1.1	–	–	–
	T8330	1.2	150	0.22	1.4	90	0.20	1.4	140	0.22	1.4	–	–	–	35	0.18	1.1	–	–	–
	T8430	1.2	165	0.22	1.4	90	0.20	1.4	135	0.22	1.4	–	–	–	35	0.18	1.1	–	–	–
	T9315	1.2	225	0.22	1.4	–	–	–	210	0.22	1.4	–	–	–	–	–	–	–	–	–
	T9325	1.2	200	0.22	1.4	120	0.20	1.4	190	0.22	1.4	–	–	–	45	0.18	1.1	–	–	–
																				
			M geometry for finish to semi-rough machining and continuous to interrupted cuts.																	
VNMG 160404E-M	**T5315**	0.4	180	0.20	1.2	–	–	–	170	0.20	1.2	–	–	–	–	–	–	35	0.15	1.0
	T9315	0.4	170	0.20	1.2	–	–	–	160	0.20	1.2	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.4	155	0.20	1.2	–	–	–	145	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9335	0.4	130	0.20	1.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VNMG 160408E-M	**T5305**	0.8	205	0.30	1.4	–	–	–	190	0.30	1.4	–	–	–	–	–	–	40	0.15	1.0
	T5315	0.8	185	0.30	1.4	–	–	–	175	0.30	1.4	–	–	–	–	–	–	35	0.15	1.0
	T9310	0.8	185	0.30	1.4	–	–	–	175	0.30	1.4	–	–	–	–	–	–	35	0.15	1.0
	T9315	0.8	170	0.30	1.4	–	–	–	160	0.30	1.4	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.8	150	0.30	1.4	–	–	–	140	0.30	1.4	–	–	–	–	–	–	–	–	–
	T9335	0.8	130	0.30	1.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VNMG 160412E-M	**T9325**	1.2	140	0.40	1.4	–	–	–	130	0.40	1.4	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

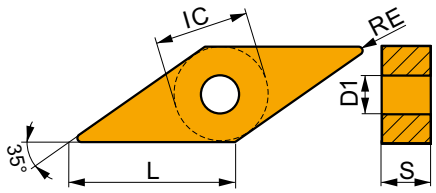
Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
																				
			NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																	
VNMG 160404E-NF	**T6310**	0.4	140	0.12	1.2	100	0.11	1.2	110	0.12	1.2	420	0.14	1.2	40	0.11	1.0	–	–	–
	T7325	0.4	140	0.18	1.2	105	0.16	1.2	–	–	–	–	–	–	45	0.16	1.0	–	–	–
	T7335	0.4	140	0.18	1.2	105	0.16	1.2	–	–	–	–	–	–	45	0.16	1.0	–	–	–
	T8315	0.4	150	0.12	1.2	90	0.11	1.2	140	0.12	1.2	450	0.14	1.2	35	0.11	1.0	–	–	–
	T8330	0.4	140	0.12	1.2	80	0.11	1.2	130	0.12	1.2	420	0.14	1.2	35	0.11	1.0	–	–	–
	T8430	0.4	175	0.12	1.2	95	0.11	1.2	140	0.12	1.2	480	0.14	1.2	35	0.11	1.0	–	–	–
	T9315	0.4	235	0.12	1.2	–	–	–	220	0.12	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	180	0.18	1.2	105	0.16	1.2	170	0.18	1.2	–	–	–	40	0.16	1.0	–	–	–
VNMG 160408E-NF	**T6310**	0.8	145	0.17	1.4	100	0.15	1.4	115	0.17	1.4	435	0.20	1.4	40	0.14	1.1	–	–	–
	T7325	0.8	165	0.18	1.4	125	0.16	1.4	–	–	–	–	–	–	50	0.16	1.1	–	–	–
	T7335	0.8	160	0.18	1.4	120	0.16	1.4	–	–	–	–	–	–	50	0.16	1.1	–	–	–
	T8315	0.8	160	0.17	1.4	95	0.15	1.4	150	0.17	1.4	480	0.20	1.4	40	0.14	1.1	–	–	–
	T8330	0.8	150	0.17	1.4	90	0.15	1.4	140	0.17	1.4	450	0.20	1.4	35	0.14	1.1	–	–	–
	T8430	0.8	175	0.17	1.4	95	0.15	1.4	140	0.17	1.4	480	0.20	1.4	35	0.14	1.1	–	–	–
	T9315	0.8	240	0.17	1.4	–	–	–	225	0.17	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.8	210	0.18	1.4	125	0.16	1.4	195	0.18	1.4	–	–	–	45	0.16	1.1	–	–	–
																				
			NM geometry with highly positive design for fine-finish, medium and rough machining, with continuous cuts.																	
VNMG 160404E-NM	**T7325**	0.4	145	0.20	1.2	110	0.18	1.2	–	–	–	–	–	–	45	0.20	1.0	–	–	–
	T7335	0.4	140	0.20	1.2	105	0.18	1.2	–	–	–	–	–	–	45	0.20	1.0	–	–	–
	T8315	0.4	135	0.20	1.2	80	0.18	1.2	–	–	–	405	0.24	1.2	30	0.20	1.0	–	–	–
	T8330	0.4	125	0.20	1.2	75	0.18	1.2	–	–	–	375	0.24	1.2	30	0.20	1.0	–	–	–
	T8430	0.4	145	0.20	1.2	80	0.18	1.2	–	–	–	405	0.24	1.2	30	0.20	1.0	–	–	–
	T9325	0.4	180	0.20	1.2	105	0.18	1.2	–	–	–	–	–	–	40	0.20	1.0	–	–	–
VNMG 160408E-NM	**T7325**	0.8	160	0.25	1.4	120	0.23	1.4	–	–	–	–	–	–	50	0.20	1.1	–	–	–
	T7335	0.8	155	0.25	1.4	120	0.23	1.4	–	–	–	–	–	–	50	0.20	1.1	–	–	–
	T8315	0.8	145	0.25	1.4	85	0.23	1.4	–	–	–	435	0.30	1.4	35	0.20	1.1	–	–	–
	T8330	0.8	140	0.25	1.4	80	0.23	1.4	–	–	–	420	0.30	1.4	35	0.20	1.1	–	–	–
	T8430	0.8	155	0.25	1.4	85	0.23	1.4	–	–	–	435	0.30	1.4	30	0.20	1.1	–	–	–
	T9325	0.8	190	0.25	1.4	110	0.23	1.4	–	–	–	–	–	–	40	0.20	1.1	–	–	–
																				
			NMR geometry with positive design for medium to rough machining, and continuous cuts.																	
VNMG 160404E-NMR	**T7325**	0.4	125	0.20	1.2	95	0.18	1.2	–	–	–	–	–	–	40	0.18	1.0	–	–	–
	T7335	0.4	120	0.20	1.2	90	0.18	1.2	–	–	–	–	–	–	35	0.18	1.0	–	–	–
	T9325	0.4	155	0.20	1.2	90	0.18	1.2	–	–	–	–	–	–	30	0.18	1.0	–	–	–
VNMG 160408E-NMR	**T7325**	0.8	130	0.30	1.4	100	0.27	1.4	–	–	–	–	–	–	40	0.24	1.1	–	–	–
	T7335	0.8	125	0.30	1.4	95	0.27	1.4	–	–	–	–	–	–	40	0.24	1.1	–	–	–
	T8430	0.8	125	0.30	1.4	65	0.27	1.4	–	–	–	–	–	–	25	0.24	1.1	–	–	–
	T9315	0.8	170	0.30	1.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	150	0.30	1.4	90	0.27	1.4	–	–	–	–	–	–	30	0.24	1.1	–	–	–
VNMG 160412E-NMR	**T7325**	1.2	140	0.30	1.4	105	0.27	1.4	–	–	–	–	–	–	45	0.24	1.1	–	–	–
	T8330	1.2	120	0.30	1.4	70	0.27	1.4	–	–	–	–	–	–	30	0.24	1.1	–	–	–
	T8430	1.2	130	0.30	1.4	70	0.27	1.4	–	–	–	–	–	–	25	0.24	1.1	–	–	–
	T9325	1.2	160	0.30	1.4	95	0.27	1.4	–	–	–	–	–	–	35	0.24	1.1	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

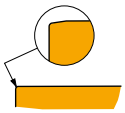
Product		RE	P			M			K			N			S			H		
			vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]	vc [m/min]	f [mm/rev]	ap [mm]
			SF geometry with positive design for fine-finish machining and for machining thin walls, with continuous cuts.																	
VNMG 160404E-SF	**T6310**	0.4	■ 135	0.12	1.2	■ 95	0.11	1.2	■ 105	0.12	1.2	◪ 405	0.14	1.2	■ 40	0.11	1.0	■ 25	0.15	1.0
	T7325	0.4	◪ 140	0.17	1.2	■ 105	0.15	1.2	–	–	–	–	–	–	■ 45	0.15	1.0	–	–	–
	T8315	0.4	◪ 140	0.12	1.2	■ 80	0.11	1.2	■ 130	0.12	1.2	◪ 420	0.14	1.2	◪ 35	0.11	1.0	■ 25	0.15	1.0
	T8330	0.4	■ 135	0.12	1.2	■ 80	0.11	1.2	■ 125	0.12	1.2	◪ 405	0.14	1.2	◪ 30	0.11	1.0	◪ 25	0.15	1.0
	T8430	0.4	■ 165	0.12	1.2	■ 90	0.11	1.2	◪ 135	0.12	1.2	◪ 450	0.14	1.2	◪ 35	0.11	1.0	◪ 25	0.15	1.0
	T9315	0.4	■ 225	0.12	1.2	–	–	–	◪ 210	0.12	1.2	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	0.4	■ 175	0.17	1.2	■ 105	0.15	1.2	◪ 165	0.17	1.2	–	–	–	◪ 35	0.15	1.0	–	–	–
VNMG 160408E-SF	**T6310**	0.8	■ 140	0.17	1.4	■ 100	0.15	1.4	■ 110	0.17	1.4	◪ 420	0.20	1.4	■ 40	0.14	1.1	■ 25	0.15	1.0
	T8315	0.8	◪ 150	0.17	1.4	■ 90	0.15	1.4	■ 140	0.17	1.4	◪ 450	0.20	1.4	◪ 35	0.14	1.1	■ 30	0.15	1.0
	T8330	0.8	■ 145	0.17	1.4	■ 85	0.15	1.4	■ 135	0.17	1.4	◪ 435	0.20	1.4	◪ 35	0.14	1.1	◪ 25	0.15	1.0
	T8430	0.8	■ 165	0.17	1.4	■ 90	0.15	1.4	◪ 135	0.17	1.4	◪ 450	0.20	1.4	◪ 35	0.14	1.1	◪ 25	0.15	1.0
	T9315	0.8	■ 230	0.17	1.4	–	–	–	◪ 215	0.17	1.4	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	0.8	■ 205	0.17	1.4	■ 120	0.15	1.4	◪ 190	0.17	1.4	–	–	–	◪ 45	0.15	1.1	–	–	–
VNMG 160412E-SF	**T6310**	1.2	■ 145	0.20	1.4	■ 100	0.18	1.4	■ 115	0.20	1.4	◪ 435	0.24	1.4	■ 40	0.16	1.1	■ 25	0.15	1.0
	T7325	1.2	◪ 165	0.20	1.4	■ 125	0.18	1.4	–	–	–	–	–	–	■ 50	0.16	1.1	–	–	–
			SM geometry with positive design for medium machining, and continuous to interrupted cuts.																	
VNMG 160404E-SM	**T6310**	0.4	■ 120	0.18	1.2	■ 85	0.16	1.2	■ 95	0.18	1.2	◪ 360	0.22	1.2	■ 35	0.16	1.0	◪ 20	0.15	1.0
	T7325	0.4	◪ 135	0.18	1.2	■ 105	0.16	1.2	–	–	–	–	–	–	■ 40	0.16	1.0	–	–	–
	T7335	0.4	◪ 135	0.18	1.2	■ 105	0.16	1.2	–	–	–	–	–	–	■ 40	0.16	1.0	–	–	–
	T8330	0.4	■ 120	0.18	1.2	■ 70	0.16	1.2	■ 110	0.18	1.2	◪ 360	0.22	1.2	◪ 30	0.16	1.0	◪ 20	0.15	1.0
	T8430	0.4	■ 135	0.18	1.2	■ 75	0.16	1.2	◪ 110	0.18	1.2	◪ 375	0.22	1.2	◪ 25	0.16	1.0	◪ 20	0.15	1.0
	T9315	0.4	■ 190	0.18	1.2	–	–	–	◪ 180	0.18	1.2	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.4	■ 170	0.18	1.2	■ 100	0.16	1.2	◪ 160	0.18	1.2	–	–	–	◪ 35	0.16	1.0	–	–	–
VNMG 160408E-SM	**T6310**	0.8	■ 125	0.25	1.4	■ 90	0.23	1.4	■ 100	0.25	1.4	◪ 375	0.30	1.4	■ 35	0.20	1.1	◪ 25	0.15	1.0
	T7325	0.8	◪ 145	0.25	1.4	■ 110	0.23	1.4	–	–	–	–	–	–	■ 45	0.20	1.1	–	–	–
	T8330	0.8	■ 125	0.25	1.4	■ 75	0.23	1.4	■ 115	0.25	1.4	◪ 375	0.30	1.4	◪ 30	0.20	1.1	◪ 25	0.15	1.0
	T8430	0.8	■ 140	0.25	1.4	■ 75	0.23	1.4	◪ 115	0.25	1.4	◪ 390	0.30	1.4	◪ 30	0.20	1.1	◪ 20	0.15	1.0
	T9315	0.8	■ 195	0.25	1.4	–	–	–	◪ 185	0.25	1.4	–	–	–	–	–	–	◪ 35	0.15	1.0
	T9325	0.8	■ 170	0.25	1.4	■ 100	0.23	1.4	◪ 160	0.25	1.4	–	–	–	◪ 35	0.20	1.1	–	–	–
VNMG 160412E-SM	**T6310**	1.2	■ 125	0.30	1.4	■ 90	0.27	1.4	■ 100	0.30	1.4	◪ 375	0.36	1.4	■ 35	0.24	1.1	◪ 25	0.15	1.0

VNGA CER

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.60	4.76

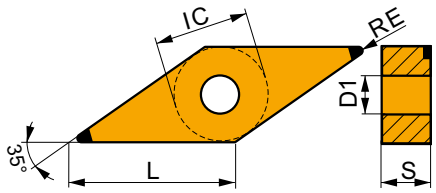


Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

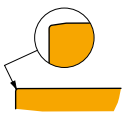
Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC T																	
			For machining with high speeds and continuous cuts.																	
VNGA 160404 T01020	TC100	0.4	–	–	–	–	–	–	425	0.10	1.0	–	–	–	–	–	–	–	–	–
VNGA 160408 T01020	TC100	0.8	–	–	–	–	–	–	395	0.20	1.0	–	–	–	–	–	–	–	–	–

VNGA CBN

	IC [mm]	D1 [mm]	L [mm]	S [mm]
1604	9.525	3.81	16.00	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
			HSC S																	
			For finish machining and continuous cuts.																	
VNGA 160404S01020B	TB310	0.4	–	–	–	–	–	–	360	0.10	0.4	–	–	–	95	0.07	0.3	75	0.15	1.0
VNGA 160408S01020B	TB310	0.8	–	–	–	–	–	–	370	0.15	0.6	–	–	–	95	0.11	0.5	75	0.15	1.0

DVJN(RL) EXT

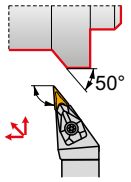
P M K N S H

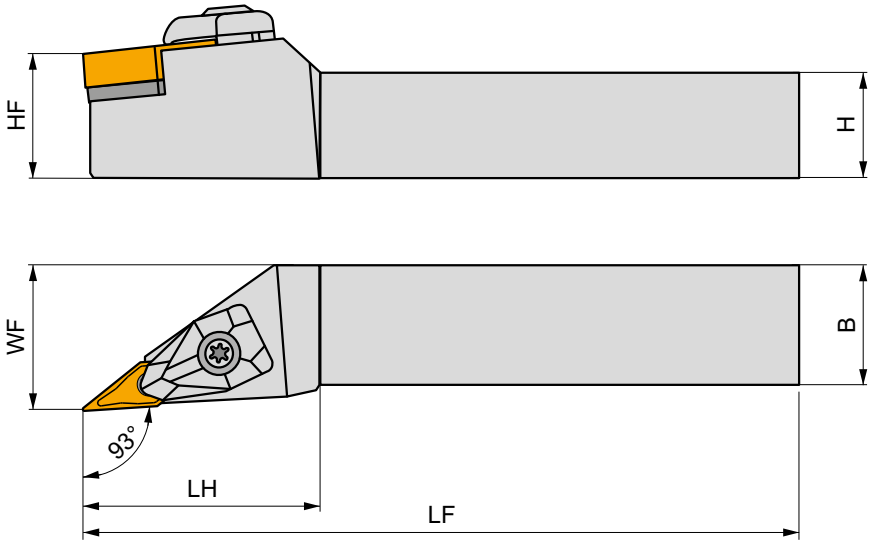
PRAMET

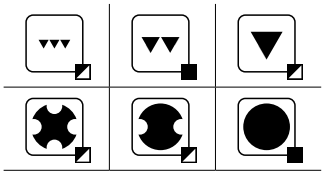
D

External Double Clamp Holder with 93° Cutting Angle for VN.. Insert

External Right/Left hand double clamp tool holder with 93° cutting angle. Suited for longitudinal turning with shoulder, copy and taper turing and chamfering with negative VN.. 16 size inserts. Available in 20x20 up to 32x32 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**DVJNR 2020 K 16**	20	20	20	25	125	46.4	-13	-4	0.43	GI048	DV16
	DVJNR 2525 M 16	25	25	25	32	150	46.4	-13	-4	0.75	GI048	DV16
	DVJNR 3225 P 16	32	25	32	32	170	46.4	-13	-4	1.05	GI048	DV16
L	**DVJNL 2020 K 16**	20	20	20	25	125	46.4	-13	-4	0.43	GI048	DV16
	DVJNL 2525 M 16	25	25	25	32	150	46.4	-13	-4	0.75	GI048	DV16
	DVJNL 3225 P 16	32	25	32	32	170	46.4	-13	-4	1.06	GI048	DV16

GI048	VN.. 1604..

DV16	DCS 16V	3.0	DVS 269-01	US 2009-T15P	FLAG T15P/3,5

DVPN(RL) EXT

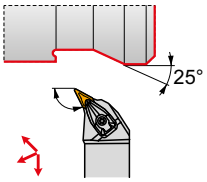
P M K N S H

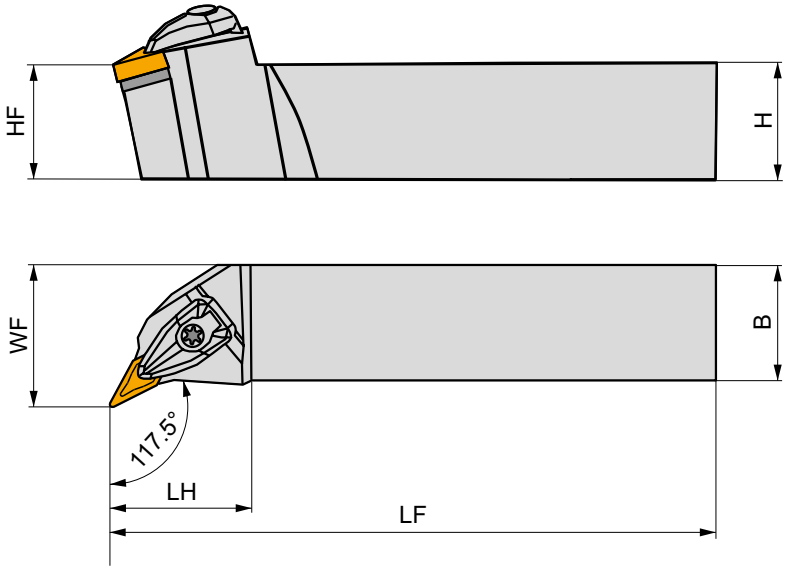
PRAMET

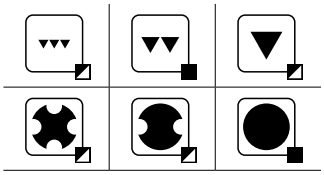
D

External Double Clamp Holder with 117.5° Cutting Angle for VN.. Insert

External Right/Left hand double clamp tool holder with 117.5° Cutting Angle. Suited for longitudinal and face turning with shoulder, copy and taper turning and chamfering with negative VN.. 16 size inserts. Available in 25x25 and 32x25 mm shank. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	DVPNR 2525 M 16	25	25	25	32	150	39.2	-13	-4	0.75	GI048	DV16
	DVPNR 3225 P 16	32	25	32	32	170	39.2	-13	-4	1.06	GI048	DV16
L	DVPNL 2525 M 16	25	25	25	32	150	39.2	-13	-4	0.74	GI048	DV16
	DVPNL 3225 P 16	32	25	32	32	170	39.2	-13	-4	1.06	GI048	DV16

GI048	VN.. 1604..

DV16	DCS 16V	3.0 Nm	DVS 269-01	US 2009-T15P	FLAG T15P/3,5

MVJN(RL) EXT

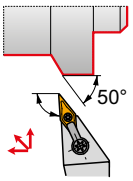
P M K N S H

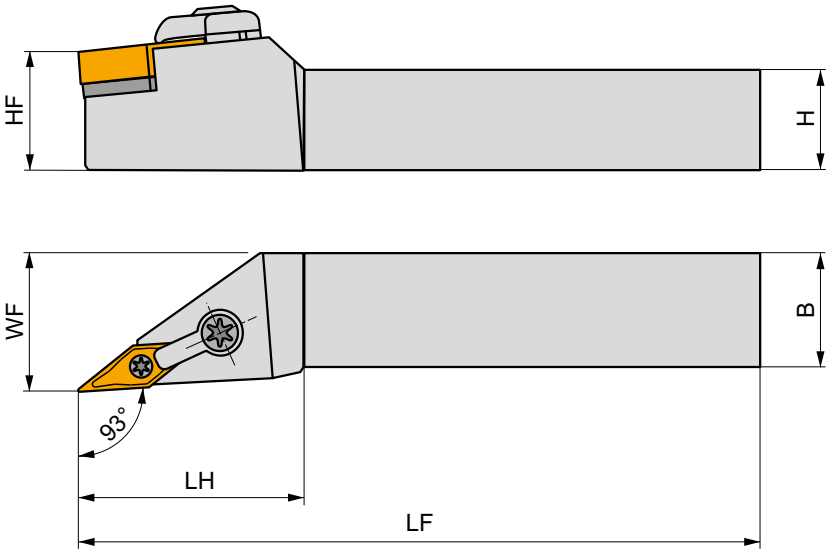
PRAMET

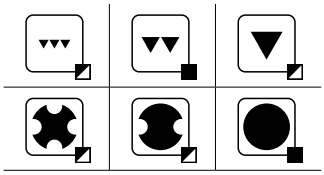
M

External Multi-Clamp Holder with 93° Cutting Angle for VN.. Insert

External Right/Left hand multi-clamp turning holder with 93° cutting angle. Suited for longitudinal turning with shoulder, copy turning up to 50°, taper and chamfer turning with negative VN.. 16 insert. Available with shank size 20x20 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	**MVJNR 2020 K 16-A**	20	20	20	25	125	41	-4.5	-13.5	0.40	GI048	MV2
	MVJNR 2525 M 16-A	25	25	25	32	150	41	-4.5	-13.5	0.70	GI048	MV2
	MVJNR 3225 P 16-A	32	25	32	32	170	41	-4.5	-13.5	0.98	GI048	MV2
L	**MVJNL 2020 K 16-A**	20	20	20	25	125	41	-4.5	-13.5	0.40	GI048	MV2
	MVJNL 2525 M 16-A	25	25	25	32	150	41	-4.5	-13.5	0.70	GI048	MV2
	MVJNL 3225 P 16-A	32	25	32	32	170	41	-4.5	-13.5	0.96	GI048	MV2

GI048	VN.. 1604..

				Nm		Nm	
MV2	UPC 22	MVN 160316	UP 0909-T09P	2.0	PS 6026-T09P	2.0	FLAG T09P

C.-DVJN(RL) EXT

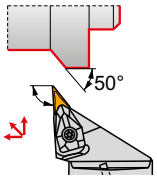
P M K N S H

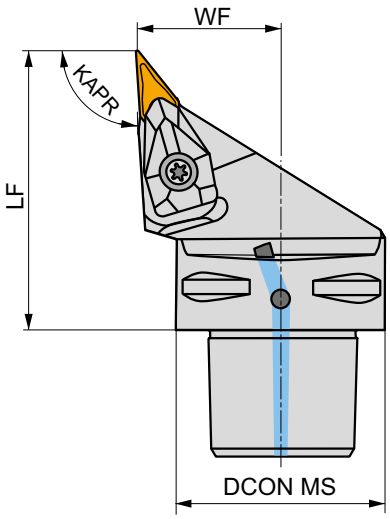
PRAMET

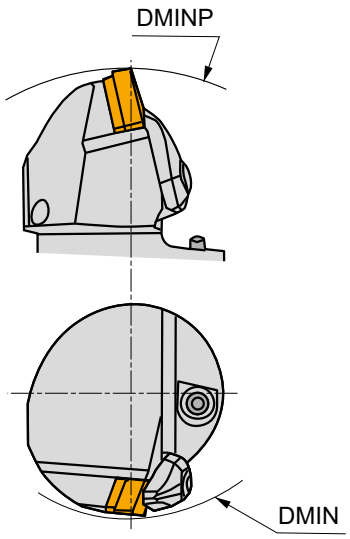
D

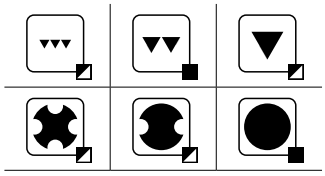
External PSC Quick Change Tool, Double Clamp, 93° Cutting Angle, VN.. Insert

External Right/Left hand double clamp tool, through coolant, with 93° cutting angle for longitudinal turning with shoulder, copy and taper turning and chamfering with negative VN.. 16 size inserts. Available with PSC (Polygon Shank Coupling) C4 up to C6 shank. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	**C4-DVJNR-27062-16**	40	60	152	27	62	93	-13	-4	✓	0.45	GI048	C-DV16-1
	C5-DVJNR-35065-16	50	65	170	35	65	93	-13	-4	✓	0.47	GI048	C-DV16-2
	C6-DVJNR-45065-16	63	81	190	45	65	93	-13	-4	✓	1.13	GI048	C-DV16-2
L	**C4-DVJNL-27062-16**	40	60	152	27	62	93	-13	-4	✓	0.45	GI048	C-DV16-1
	C5-DVJNL-35065-16	50	65	170	35	65	93	-13	-4	✓	0.72	GI048	C-DV16-2
	C6-DVJNL-45065-16	63	81	190	45	65	93	-13	-4	✓	1.13	GI048	C-DV16-2

GI048	VN.. 1604..

		Nm				
C-DV16-1	DCS 16V	3.0	DVS 269-01	US 2009-T15P	FLAG T15P/3,5	CN 034-01
C-DV16-2	DCS 16V	3.0	DVS 269-01	US 2009-T15P	FLAG T15P/3,5	CN 034-02

DVUN(RL) INT

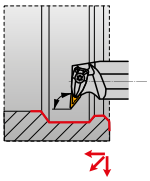
P M K N S H

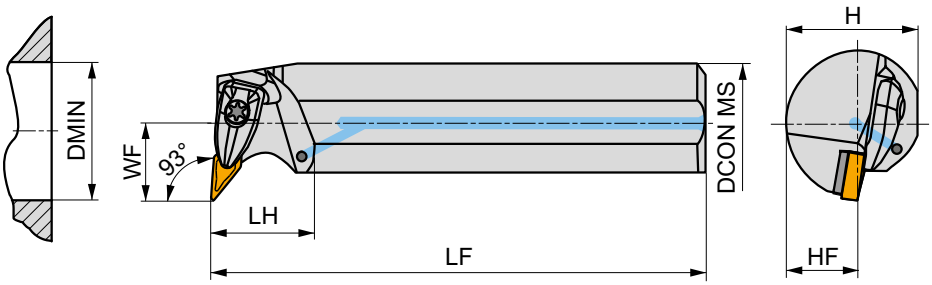
PRAMET

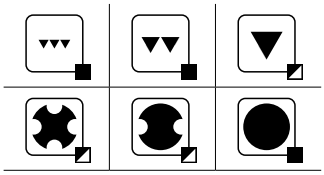
D

Internal Double Clamp Boring Bar with 93° Cutting Angle for VN.. Insert

Internal Right/Left hand double clamp boring bar, through coolant, with 93° cutting angle for VN.. 16 inserts. Minimum internal turning diameter Ø50 mm. Suited for internal taper, longitudinal turning with shoulder, copying and chamfer turning. Available with shank size Ø40 mm only. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	**A40T-DVUNR 16**	40	50	27	37	18.5	300	36	-9	-6	✓	2.59	GI048	DV16
L	**A40T-DVUNL 16**	40	50	27	37	18.5	300	36	-9	-6	✓	2.59	GI048	DV16

GI048	VN.. 1604..

DV16	DCS 16V	3.0 Nm	DVS 269-01	US 2009-T15P	FLAG T15P/3,5

WN

06/ 08/ 10/ 13

CARBIDE INSERTS

WNMA

366

WNMG

366

WNMM

375

CER AND CBN INSERTS

WNGA CBN

376

MATCH THE RIGHT SIZE (example)	
Insert	**Tool Holder**
WNMA **08**0408	DWLNL 2020 K **08**

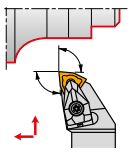
ISO TURNING – EXTERNAL

DWLN(RL) EXT

95°

WN..

06
08
10
13



16×16
40×40

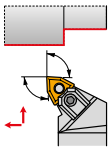
377 | 366 – 376

MWLN(RL) EXT

95°

WN..

08



25×25
40×40

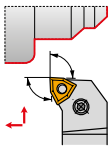
379 | 366 – 376

PWLN(RL) EXT

95°

WN..

06
08



16×16
32×25

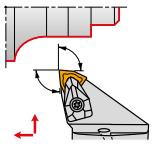
380 | 366 – 376

C.-DWLN(RL) EXT

95°

WN..

06
08



C4
C6

381 | 366 – 376

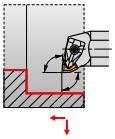
ISO TURNING – INTERNAL

DWLN(RL) INT

95°

WN..

06
08



32
63

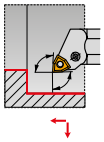
382 | 366 – 376

PWLN(RL) INT

95°

WN..

06
08



20
80

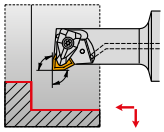
383 | 366 – 376

C.-DWLN(RL) INT

95°

WN..

06
08



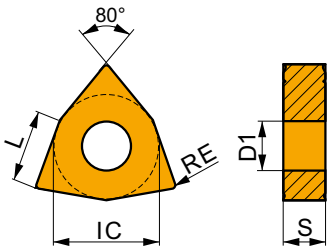
27
33

385 | 366 – 376

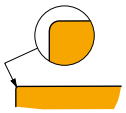
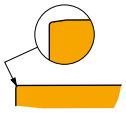
WNMA

PRAMET

	IC [mm]	D1 [mm]	L [mm]	S [mm]
0804	12.700	5.16	8.70	4.76



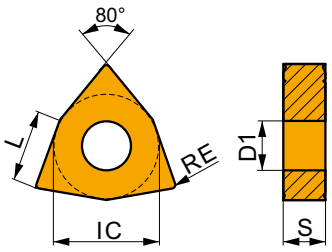
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 	E																			
	For fine-finish to semi-rough machining, and continuous to slightly interrupted cuts.																			
WNMA 080404	**T5305**	0.4	–	–	–	–	–	–	235	0.10	4.0	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.4	–	–	–	–	–	–	200	0.10	4.0	–	–	–	–	–	–	40	0.15	1.0
WNMA 080408	**T5305**	0.8	–	–	–	–	–	–	220	0.20	4.0	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	–	–	–	–	–	–	190	0.20	4.0	–	–	–	–	–	–	40	0.15	1.0
	T6310	0.8	–	–	–	–	–	–	100	0.20	4.0	–	–	–	–	–	–	25	0.15	1.0
WNMA 080412	**T5305**	1.2	–	–	–	–	–	–	195	0.30	4.0	–	–	–	–	–	–	40	0.15	1.0
	T5315	1.2	–	–	–	–	–	–	180	0.30	4.0	–	–	–	–	–	–	35	0.15	1.0
	T6310	1.2	–	–	–	–	–	–	95	0.30	4.0	–	–	–	–	–	–	20	0.15	1.0
 	S																			
	For fine-finish to semi-rough machining and continuous to slightly interrupted cuts.																			
WNMA 080408S	**T5305**	0.8	–	–	–	–	–	–	220	0.20	4.0	–	–	–	–	–	–	45	0.15	1.0

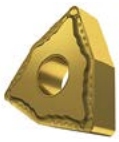
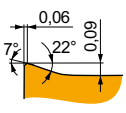
WNMG

PRAMET

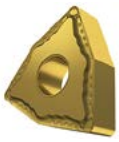
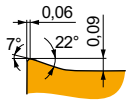
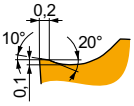
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0604	9.525	3.81	6.50	4.76
06T3	9.525	3.81	6.50	3.97
0804	12.700	5.16	8.70	4.76



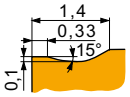
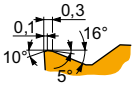
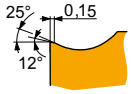
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
 	U S																			
	FF geometry with highly positive design for fine-finish machining, and continuous to slightly interrupted cuts.																			
WNMG 060402E-FF	**T8315**	0.2	215	0.10	1.0	125	0.09	1.0	200	0.10	1.0	–	–	–	–	–	–	–	–	–
WNMG 060404E-FF	**T8315**	0.4	220	0.12	1.0	130	0.11	1.0	205	0.12	1.0	–	–	–	–	–	–	–	–	–

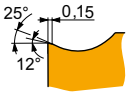
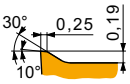
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			FF geometry with highly positive design for fine-finish machining, and continuous to slightly interrupted cuts.																	
WNMG 080404E-FF	**T7325**	0.4	235	0.12	1.0	180	0.11	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.4	220	0.12	1.0	130	0.11	1.0	205	0.12	1.0	–	–	–	–	–	–	–	–	–
WNMG 080408E-FF	**T7325**	0.8	265	0.15	1.0	205	0.14	1.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	245	0.15	1.0	145	0.14	1.0	230	0.15	1.0	–	–	–	–	–	–	–	–	–
																				
			FM geometry with positive design for finish to semi-rough machining, and continuous to slightly interrupted cuts.																	
WNMG 060404E-FM	**T7325**	0.4	195	0.20	1.4	150	0.18	1.4	–	–	–	–	–	–	60	0.16	1.1	–	–	–
	T8315	0.4	180	0.20	1.4	105	0.18	1.4	170	0.20	1.4	–	–	–	45	0.14	1.1	–	–	–
	T8330	0.4	175	0.20	1.4	105	0.18	1.4	165	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T8430	0.4	195	0.20	1.4	105	0.18	1.4	160	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T9315	0.4	265	0.20	1.4	–	–	–	250	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	1.4	140	0.18	1.4	225	0.20	1.4	–	–	–	50	0.16	1.1	–	–	–
	TT310	0.4	275	0.20	1.4	165	0.18	1.4	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 060408E-FM	**T7325**	0.8	235	0.20	1.4	180	0.18	1.4	–	–	–	–	–	–	75	0.16	1.1	–	–	–
	T8330	0.8	205	0.20	1.4	120	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T8430	0.8	235	0.20	1.4	125	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T9315	0.8	315	0.20	1.4	–	–	–	295	0.20	1.4	–	–	–	–	–	–	–	–	–
	T9325	0.8	285	0.20	1.4	170	0.18	1.4	270	0.20	1.4	–	–	–	60	0.16	1.1	–	–	–
WNMG 060412E-FM	**T9315**	1.2	300	0.27	1.2	–	–	–	285	0.27	1.2	–	–	–	–	–	–	–	–	–
WNMG 06T304E-FM	**T7325**	0.4	195	0.20	1.4	150	0.18	1.4	–	–	–	–	–	–	60	0.16	1.1	–	–	–
	T8330	0.4	175	0.20	1.4	105	0.18	1.4	165	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T8430	0.4	195	0.20	1.4	105	0.18	1.4	160	0.20	1.4	–	–	–	40	0.14	1.1	–	–	–
	T9325	0.4	240	0.20	1.4	140	0.18	1.4	225	0.20	1.4	–	–	–	50	0.16	1.1	–	–	–
WNMG 06T308E-FM	**T8330**	0.8	205	0.20	1.4	120	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T8430	0.8	235	0.20	1.4	125	0.18	1.4	190	0.20	1.4	–	–	–	50	0.14	1.1	–	–	–
	T9325	0.8	285	0.20	1.4	170	0.18	1.4	270	0.20	1.4	–	–	–	60	0.16	1.1	–	–	–
WNMG 080404E-FM	**T7325**	0.4	190	0.20	1.9	145	0.18	1.9	–	–	–	–	–	–	60	0.16	1.5	–	–	–
	T7335	0.4	180	0.20	1.9	140	0.18	1.9	–	–	–	–	–	–	55	0.16	1.5	–	–	–
	T8315	0.4	180	0.20	1.9	105	0.18	1.9	170	0.20	1.9	–	–	–	45	0.14	1.5	–	–	–
	T8330	0.4	165	0.20	1.9	95	0.18	1.9	155	0.20	1.9	–	–	–	40	0.14	1.5	–	–	–
	T8430	0.4	190	0.20	1.9	105	0.18	1.9	155	0.20	1.9	–	–	–	40	0.14	1.5	–	–	–
	T9310	0.4	285	0.20	1.9	–	–	–	270	0.20	1.9	–	–	–	–	–	–	–	–	–
	T9315	0.4	270	0.20	1.2	–	–	–	255	0.20	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.4	245	0.20	1.2	145	0.18	1.2	230	0.20	1.2	–	–	–	55	0.16	1.0	–	–	–
WNMG 080408E-FM	**T7325**	0.8	225	0.20	1.9	175	0.18	1.9	–	–	–	–	–	–	70	0.16	1.5	–	–	–
	T7335	0.8	215	0.20	1.9	165	0.18	1.9	–	–	–	–	–	–	65	0.16	1.5	–	–	–
	T8315	0.8	210	0.20	1.9	125	0.18	1.9	195	0.20	1.9	–	–	–	50	0.16	1.5	–	–	–
	T8330	0.8	195	0.20	1.9	115	0.18	1.9	185	0.20	1.9	–	–	–	45	0.16	1.5	–	–	–
	T8430	0.8	225	0.20	1.9	120	0.18	1.9	185	0.20	1.9	–	–	–	45	0.16	1.5	–	–	–
	T9310	0.8	335	0.20	1.9	–	–	–	315	0.20	1.9	–	–	–	–	–	–	–	–	–
	T9315	0.8	310	0.20	1.9	–	–	–	290	0.20	1.9	–	–	–	–	–	–	–	–	–
	T9325	0.8	280	0.20	1.9	165	0.18	1.9	265	0.20	1.9	–	–	–	60	0.16	1.5	–	–	–
WNMG 080412E-FM	**T7325**	1.2	220	0.27	1.9	170	0.24	1.9	–	–	–	–	–	–	70	0.19	1.5	–	–	–
	T7335	1.2	205	0.27	1.9	155	0.24	1.9	–	–	–	–	–	–	65	0.19	1.5	–	–	–
	T8330	1.2	190	0.27	1.9	110	0.24	1.9	180	0.27	1.9	–	–	–	45	0.19	1.5	–	–	–
	T8430	1.2	210	0.27	1.9	115	0.24	1.9	175	0.27	1.9	–	–	–	45	0.19	1.5	–	–	–
	T9310	1.2	310	0.27	1.9	–	–	–	290	0.27	1.9	–	–	–	–	–	–	–	–	–
	T9315	1.2	285	0.27	1.9	–	–	–	270	0.27	1.9	–	–	–	–	–	–	–	–	–
	T9325	1.2	255	0.27	1.9	150	0.24	1.9	240	0.27	1.9	–	–	–	55	0.19	1.5	–	–	–

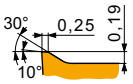
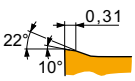
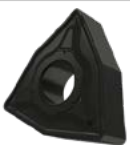
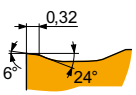
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
KR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
WNMG 080408E-KR	**T5305**	0.8	255	0.35	3.5	–	–	–	240	0.35	3.5	–	–	–	–	–	–	50	0.15	1.0
	T5315	0.8	230	0.35	3.5	–	–	–	215	0.35	3.5	–	–	–	–	–	–	45	0.15	1.0
WNMG 080412E-KR	**T5305**	1.2	260	0.40	3.5	–	–	–	245	0.40	3.5	–	–	–	–	–	–	50	0.15	1.0
	T5315	1.2	235	0.40	3.5	–	–	–	220	0.40	3.5	–	–	–	–	–	–	45	0.15	1.0
																				
M geometry for finish to semi-rough machining, and continuous to interrupted cuts.																				
WNMG 060404E-M	**T5315**	0.4	250	0.20	1.8	–	–	–	235	0.20	1.8	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.4	240	0.20	1.8	–	–	–	225	0.20	1.8	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.4	215	0.20	1.8	–	–	–	200	0.20	1.8	–	–	–	–	–	–	–	–	–
	T9335	0.4	180	0.20	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 060408E-M	**T5315**	0.8	255	0.32	1.8	–	–	–	240	0.32	1.8	–	–	–	–	–	–	50	0.15	1.0
	T9310	0.8	250	0.32	1.8	–	–	–	235	0.32	1.8	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.8	230	0.32	1.8	–	–	–	215	0.32	1.8	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	205	0.32	1.8	–	–	–	190	0.32	1.8	–	–	–	–	–	–	–	–	–
	T9335	0.8	180	0.32	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080404E-M	**T5315**	0.4	260	0.20	1.2	–	–	–	245	0.20	1.2	–	–	–	–	–	–	50	0.15	1.0
	T9315	0.4	235	0.20	2.1	–	–	–	220	0.20	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.4	210	0.20	2.1	–	–	–	195	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9335	0.4	180	0.20	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080408E-M	**T5305**	0.8	280	0.32	2.1	–	–	–	265	0.32	2.1	–	–	–	–	–	–	55	0.15	1.0
	T5315	0.8	250	0.32	2.1	–	–	–	235	0.32	2.1	–	–	–	–	–	–	50	0.15	1.0
	T8330	0.8	155	0.32	2.1	–	–	–	145	0.32	2.1	–	–	–	–	–	–	30	0.15	1.0
	T8430	0.8	170	0.32	2.1	–	–	–	135	0.32	2.1	–	–	–	–	–	–	25	0.15	1.0
	T9310	0.8	245	0.32	2.1	–	–	–	230	0.32	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9315	0.8	225	0.32	2.1	–	–	–	210	0.32	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9325	0.8	200	0.32	2.1	–	–	–	190	0.32	2.1	–	–	–	–	–	–	–	–	–
	T9335	0.8	180	0.32	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080412E-M	**T5305**	1.2	275	0.40	2.1	–	–	–	260	0.40	2.1	–	–	–	–	–	–	55	0.15	1.0
	T5315	1.2	245	0.40	2.1	–	–	–	230	0.40	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9310	1.2	235	0.40	2.1	–	–	–	220	0.40	2.1	–	–	–	–	–	–	45	0.15	1.0
	T9315	1.2	220	0.40	2.1	–	–	–	205	0.40	2.1	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.2	195	0.40	2.1	–	–	–	185	0.40	2.1	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.40	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
WNMG 060404E-NF	**T6310**	0.4	190	0.17	0.8	135	0.15	0.8	150	0.17	0.8	570	0.20	0.8	55	0.12	0.6	–	–	–
	T7325	0.4	215	0.18	0.8	165	0.16	0.8	–	–	–	–	–	–	65	0.16	0.6	–	–	–
	T7335	0.4	210	0.18	0.8	160	0.16	0.8	–	–	–	–	–	–	65	0.16	0.6	–	–	–
	T8315	0.4	200	0.17	0.8	120	0.15	0.8	190	0.17	0.8	600	0.20	0.8	50	0.12	0.6	–	–	–
	T8330	0.4	190	0.17	0.8	110	0.15	0.8	180	0.17	0.8	570	0.20	0.8	45	0.12	0.6	–	–	–
	T8430	0.4	225	0.17	0.8	120	0.15	0.8	185	0.17	0.8	615	0.20	0.8	45	0.12	0.6	–	–	–
	T9315	0.4	305	0.17	0.8	–	–	–	285	0.17	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.4	265	0.18	0.8	155	0.16	0.8	250	0.18	0.8	–	–	–	55	0.16	0.6	–	–	–
WNMG 060408E-NF	**T6310**	0.8	215	0.19	1.0	150	0.17	1.0	170	0.19	1.0	645	0.23	1.0	60	0.15	0.8	–	–	–
	T7325	0.8	245	0.19	1.0	190	0.17	1.0	–	–	–	–	–	–	75	0.15	0.8	–	–	–
	T8330	0.8	215	0.19	1.0	125	0.17	1.0	200	0.19	1.0	645	0.23	1.0	50	0.15	0.8	–	–	–
	T8430	0.8	245	0.19	1.0	135	0.17	1.0	200	0.19	1.0	675	0.23	1.0	50	0.15	0.8	–	–	–
	T9315	0.8	335	0.19	1.0	–	–	–	315	0.19	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	300	0.19	1.0	180	0.17	1.0	285	0.19	1.0	–	–	–	65	0.15	0.8	–	–	–

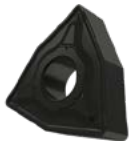
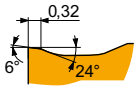
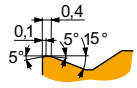
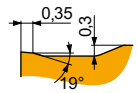
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NF geometry with highly positive design for fine-finish to medium machining, and continuous cuts.																				
WNMG 080404E-NF	**HF7**	0.4	–	–	–	95	0.15	1.7	155	0.17	1.7	495	0.20	1.7	–	–	–	–	–	–
	T6310	0.4	180	0.17	1.7	125	0.15	1.7	145	0.17	1.7	540	0.20	1.7	50	0.14	1.4	–	–	–
	T7325	0.4	200	0.18	1.7	155	0.16	1.7	–	–	–	–	–	–	65	0.16	1.4	–	–	–
	T7335	0.4	195	0.18	1.7	150	0.16	1.7	–	–	–	–	–	–	60	0.16	1.4	–	–	–
	T8315	0.4	185	0.17	1.7	110	0.15	1.7	175	0.17	1.7	555	0.20	1.7	45	0.14	1.4	–	–	–
	T8330	0.4	180	0.17	1.7	105	0.15	1.7	170	0.17	1.7	540	0.20	1.7	45	0.14	1.4	–	–	–
	T8430	0.4	200	0.17	1.7	110	0.15	1.7	165	0.17	1.7	555	0.20	1.7	40	0.14	1.4	–	–	–
	T9315	0.4	285	0.17	1.7	–	–	–	270	0.17	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.4	250	0.18	1.7	150	0.16	1.7	235	0.18	1.7	–	–	–	55	0.16	1.4	–	–	–
WNMG 080408E-NF	**HF7**	0.8	–	–	–	110	0.17	1.7	180	0.19	1.7	570	0.23	1.7	–	–	–	–	–	–
	T6310	0.8	200	0.19	1.7	140	0.17	1.7	160	0.19	1.7	600	0.23	1.7	60	0.15	1.4	–	–	–
	T7325	0.8	235	0.19	1.7	180	0.17	1.7	–	–	–	–	–	–	75	0.15	1.4	–	–	–
	T7335	0.8	225	0.19	1.7	175	0.17	1.7	–	–	–	–	–	–	70	0.15	1.4	–	–	–
	T8315	0.8	215	0.19	1.7	125	0.17	1.7	200	0.19	1.7	645	0.23	1.7	50	0.15	1.4	–	–	–
	T8330	0.8	200	0.19	1.7	120	0.17	1.7	190	0.19	1.7	600	0.23	1.7	50	0.15	1.4	–	–	–
	T8430	0.8	235	0.19	1.7	125	0.17	1.7	190	0.19	1.7	645	0.23	1.7	50	0.15	1.4	–	–	–
	T9315	0.8	320	0.19	1.7	–	–	–	300	0.19	1.7	–	–	–	–	–	–	–	–	–
	T9325	0.8	285	0.19	1.7	170	0.17	1.7	270	0.19	1.7	–	–	–	60	0.15	1.4	–	–	–
WNMG 080412E-NF	**T6310**	1.2	185	0.30	2.1	130	0.27	2.1	145	0.30	2.1	555	0.36	2.1	55	0.21	1.7	–	–	–
	T7325	1.2	205	0.30	2.1	155	0.27	2.1	–	–	–	–	–	–	65	0.21	1.7	–	–	–
	T8430	1.2	200	0.30	2.1	110	0.27	2.1	165	0.30	2.1	555	0.36	2.1	40	0.21	1.7	–	–	–
	T9315	1.2	275	0.30	2.1	–	–	–	260	0.30	2.1	–	–	–	–	–	–	–	–	–
	T9325	1.2	245	0.30	2.1	145	0.27	2.1	230	0.30	2.1	–	–	–	55	0.21	1.7	–	–	–
																				
NM geometry with highly positive design for fine-finish, medium and rough machining, with continuous cuts.																				
WNMG 060404E-NM	**T7325**	0.4	200	0.20	1.8	155	0.18	1.8	–	–	–	–	–	–	65	0.16	1.4	–	–	–
	T7335	0.4	195	0.20	1.8	150	0.18	1.8	–	–	–	–	–	–	60	0.16	1.4	–	–	–
	T8315	0.4	185	0.20	1.8	110	0.18	1.8	–	–	–	555	0.24	1.8	45	0.16	1.4	–	–	–
	T8330	0.4	175	0.20	1.8	105	0.18	1.8	–	–	–	525	0.24	1.8	40	0.16	1.4	–	–	–
	T8430	0.4	185	0.25	1.8	100	0.23	1.8	–	–	–	510	0.30	1.8	40	0.20	1.4	–	–	–
	T9325	0.4	245	0.20	1.8	145	0.18	1.8	–	–	–	–	–	–	55	0.16	1.4	–	–	–
WNMG 060408E-NM	**T7325**	0.8	220	0.25	1.8	170	0.23	1.8	–	–	–	–	–	–	70	0.20	1.4	–	–	–
	T7335	0.8	215	0.25	1.8	165	0.23	1.8	–	–	–	–	–	–	65	0.20	1.4	–	–	–
	T8315	0.8	205	0.25	1.8	120	0.23	1.8	–	–	–	615	0.30	1.8	50	0.20	1.4	–	–	–
	T8330	0.8	195	0.25	1.8	115	0.23	1.8	–	–	–	585	0.30	1.8	45	0.20	1.4	–	–	–
	T8430	0.8	220	0.25	1.8	120	0.23	1.8	–	–	–	600	0.30	1.8	45	0.20	1.4	–	–	–
	T9315	0.8	290	0.25	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	265	0.25	1.8	155	0.23	1.8	–	–	–	–	–	–	55	0.20	1.4	–	–	–
WNMG 060412E-NM	**T7325**	1.2	220	0.30	1.8	170	0.27	1.8	–	–	–	–	–	–	70	0.24	1.4	–	–	–
	T7335	1.2	220	0.30	1.2	170	0.27	1.2	–	–	–	–	–	–	70	0.24	1.0	–	–	–
	T9315	1.2	285	0.30	1.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	255	0.30	1.8	150	0.27	1.8	–	–	–	–	–	–	55	0.24	1.4	–	–	–
WNMG 080404E-NM	**T7325**	0.4	195	0.20	2.1	150	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T7335	0.4	190	0.20	2.1	145	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T8315	0.4	180	0.20	2.1	105	0.18	2.1	–	–	–	540	0.24	2.1	45	0.16	1.7	–	–	–
	T8330	0.4	170	0.20	2.1	100	0.18	2.1	–	–	–	510	0.24	2.1	40	0.16	1.7	–	–	–
	T8430	0.4	180	0.25	2.1	95	0.23	2.1	–	–	–	495	0.30	2.1	35	0.20	1.7	–	–	–
	T9315	0.4	270	0.20	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	2.1	140	0.18	2.1	–	–	–	–	–	–	50	0.16	1.7	–	–	–

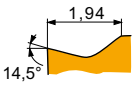
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NM geometry with highly positive design for fine-finish, medium and rough machining, with continuous cuts.																				
WNMG 080408E-NM	**T7325**	0.8	215	0.25	2.1	165	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T7335	0.8	210	0.25	2.1	160	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T8315	0.8	205	0.25	2.1	120	0.23	2.1	–	–	–	615	0.30	2.1	50	0.20	1.7	–	–	–
	T8330	0.8	195	0.25	2.1	115	0.23	2.1	–	–	–	585	0.30	2.1	45	0.20	1.7	–	–	–
	T8430	0.8	210	0.25	2.1	115	0.23	2.1	–	–	–	585	0.30	2.1	45	0.20	1.7	–	–	–
	T9315	0.8	290	0.25	2.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.25	2.1	155	0.23	2.1	–	–	–	–	–	–	55	0.20	1.7	–	–	–
WNMG 080412E-NM	**T7325**	1.2	215	0.30	2.1	165	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T7335	1.2	210	0.30	2.1	160	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T8315	1.2	205	0.30	2.1	120	0.27	2.1	–	–	–	615	0.36	2.1	50	0.24	1.7	–	–	–
	T9325	1.2	255	0.30	2.1	150	0.27	2.1	–	–	–	–	–	–	55	0.24	1.7	–	–	–
																				
NMR geometry with positive design for medium to rough machining, and continuous cuts.																				
WNMG 060404E-NMR	**T6310**	0.4	145	0.25	1.6	100	0.23	1.6	–	–	–	–	–	–	40	0.20	1.3	–	–	–
	T7325	0.4	160	0.25	1.6	120	0.23	1.6	–	–	–	–	–	–	50	0.20	1.3	–	–	–
	T8430	0.4	145	0.31	1.6	80	0.28	1.6	–	–	–	–	–	–	30	0.25	1.3	–	–	–
	T9325	0.4	200	0.25	1.6	120	0.23	1.6	–	–	–	–	–	–	45	0.20	1.3	–	–	–
WNMG 060408E-NMR	**T6310**	0.8	155	0.35	1.6	110	0.32	1.6	–	–	–	–	–	–	45	0.25	1.3	–	–	–
	T7325	0.8	175	0.35	1.6	135	0.32	1.6	–	–	–	–	–	–	55	0.25	1.3	–	–	–
	T7335	0.8	170	0.35	1.6	130	0.32	1.6	–	–	–	–	–	–	55	0.25	1.3	–	–	–
	T9315	0.8	225	0.35	1.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	200	0.35	1.6	120	0.32	1.6	–	–	–	–	–	–	45	0.25	1.3	–	–	–
WNMG 080404E-NMR	**T6310**	0.4	140	0.25	2.7	100	0.23	2.7	–	–	–	–	–	–	40	0.20	2.2	–	–	–
	T7325	0.4	155	0.25	2.7	120	0.23	2.7	–	–	–	–	–	–	50	0.20	2.2	–	–	–
	T7335	0.4	150	0.25	2.7	115	0.23	2.7	–	–	–	–	–	–	45	0.20	2.2	–	–	–
	T8330	0.4	140	0.25	2.7	80	0.23	2.7	–	–	–	–	–	–	35	0.20	2.2	–	–	–
	T8430	0.4	140	0.31	2.7	75	0.28	2.7	–	–	–	–	–	–	30	0.25	2.2	–	–	–
	T9315	0.4	205	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.4	185	0.25	2.7	110	0.23	2.7	–	–	–	–	–	–	40	0.20	2.2	–	–	–
WNMG 080408E-NMR	**T6310**	0.8	150	0.35	2.7	105	0.32	2.7	–	–	–	–	–	–	45	0.25	2.2	–	–	–
	T7325	0.8	170	0.35	2.7	130	0.32	2.7	–	–	–	–	–	–	55	0.25	2.2	–	–	–
	T7335	0.8	160	0.35	2.7	120	0.32	2.7	–	–	–	–	–	–	50	0.25	2.2	–	–	–
	T8330	0.8	150	0.35	2.7	90	0.32	2.7	–	–	–	–	–	–	35	0.25	2.2	–	–	–
	T8430	0.8	155	0.35	2.7	85	0.32	2.7	–	–	–	–	–	–	30	0.25	2.2	–	–	–
	T9315	0.8	210	0.35	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.35	2.7	110	0.32	2.7	–	–	–	–	–	–	40	0.25	2.2	–	–	–
WNMG 080412E-NMR	**T6310**	1.2	150	0.40	2.7	105	0.36	2.7	–	–	–	–	–	–	45	0.28	2.2	–	–	–
	T7325	1.2	170	0.40	2.7	130	0.36	2.7	–	–	–	–	–	–	55	0.28	2.2	–	–	–
	T7335	1.2	160	0.40	2.7	120	0.36	2.7	–	–	–	–	–	–	50	0.28	2.2	–	–	–
	T8330	1.2	150	0.40	2.7	90	0.36	2.7	–	–	–	–	–	–	35	0.28	2.2	–	–	–
	T8430	1.2	155	0.40	2.7	85	0.36	2.7	–	–	–	–	–	–	30	0.28	2.2	–	–	–
	T9315	1.2	215	0.40	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	T9325	1.2	190	0.40	2.7	110	0.36	2.7	–	–	–	–	–	–	40	0.28	2.2	–	–	–
																				
NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																				
WNMG 080404-NRM	**T7325**	0.4	155	0.25	2.7	120	0.23	2.7	–	–	–	–	–	–	50	0.18	2.2	–	–	–
	T7335	0.4	150	0.25	2.7	115	0.23	2.7	–	–	–	–	–	–	45	0.18	2.2	–	–	–
	T9315	0.4	205	0.25	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080408-NRM	**T7325**	0.8	170	0.35	2.7	130	0.32	2.7	–	–	–	–	–	–	55	0.28	2.2	–	–	–
	T7335	0.8	160	0.35	2.7	120	0.32	2.7	–	–	–	–	–	–	50	0.28	2.2	–	–	–
	T9315	0.8	210	0.35	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

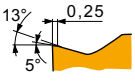
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
NRM geometry with positive design for semi-rough to rough machining, and continuous to moderate interrupted cuts.																				
WNMG 080412-NRM	**T7325**	1.2	170	0.40	2.7	130	0.36	2.7	–	–	–	–	–	–	55	0.28	2.2	–	–	–
	T7335	1.2	160	0.40	2.7	120	0.36	2.7	–	–	–	–	–	–	50	0.28	2.2	–	–	–
	T9315	1.2	215	0.40	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
R geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
WNMG 080408E-R	**T5305**	0.8	245	0.40	3.5	–	–	–	230	0.40	3.5	–	–	–	–	–	–	45	0.15	1.0
	T5315	0.8	220	0.40	3.5	–	–	–	205	0.40	3.5	–	–	–	–	–	–	40	0.15	1.0
	T9310	0.8	210	0.40	3.5	–	–	–	195	0.40	3.5	–	–	–	–	–	–	40	0.15	1.0
	T9315	0.8	195	0.40	3.5	–	–	–	185	0.40	3.5	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	175	0.40	3.5	–	–	–	165	0.40	3.5	–	–	–	–	–	–	–	–	–
	T9335	0.8	155	0.40	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080412E-R	**T5305**	1.2	250	0.45	3.5	–	–	–	235	0.45	3.5	–	–	–	–	–	–	50	0.15	1.0
	T5315	1.2	225	0.45	3.5	–	–	–	210	0.45	3.5	–	–	–	–	–	–	45	0.15	1.0
	T9310	1.2	215	0.45	3.5	–	–	–	200	0.45	3.5	–	–	–	–	–	–	40	0.15	1.0
	T9315	1.2	200	0.45	3.5	–	–	–	190	0.45	3.5	–	–	–	–	–	–	40	0.15	1.0
	T9325	1.2	180	0.45	3.5	–	–	–	170	0.45	3.5	–	–	–	–	–	–	–	–	–
	T9335	1.2	155	0.45	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
																				
RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.																				
WNMG 060412E-RM	**T9310**	1.2	245	0.45	3.0	–	–	–	230	0.45	3.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	230	0.45	3.0	–	–	–	215	0.45	3.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	230	0.45	1.2	135	0.41	1.2	215	0.45	1.2	–	–	–	–	–	–	–	–	–
WNMG 080408E-RM	**T5305**	0.8	275	0.40	4.0	–	–	–	260	0.40	4.0	–	–	–	–	–	–	–	–	–
	T5315	0.8	250	0.40	4.0	–	–	–	235	0.40	4.0	–	–	–	–	–	–	–	–	–
	T7325	0.8	180	0.40	4.0	140	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	0.8	165	0.40	4.0	125	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	0.8	165	0.40	4.0	95	0.36	4.0	155	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8330	0.8	155	0.40	4.0	90	0.36	4.0	145	0.40	4.0	–	–	–	–	–	–	–	–	–
	T8430	0.8	165	0.40	4.0	90	0.36	4.0	135	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9310	0.8	240	0.40	4.0	–	–	–	225	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9315	0.8	220	0.40	4.0	–	–	–	205	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	200	0.40	4.0	120	0.36	4.0	190	0.40	4.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	170	0.40	4.0	100	0.36	4.0	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080412E-RM	**T5305**	1.2	280	0.45	4.0	–	–	–	265	0.45	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.2	250	0.45	4.0	–	–	–	235	0.45	4.0	–	–	–	–	–	–	–	–	–
	T7325	1.2	180	0.45	4.0	140	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T7335	1.2	170	0.45	4.0	130	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8315	1.2	170	0.45	4.0	100	0.41	4.0	160	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9310	1.2	240	0.45	4.0	–	–	–	225	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.2	220	0.45	4.0	–	–	–	205	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.2	200	0.45	4.0	120	0.41	4.0	190	0.45	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	175	0.45	4.0	105	0.41	4.0	–	–	–	–	–	–	–	–	–	–	–	–
WNMG 080416E-RM	**T5305**	1.6	280	0.50	4.0	–	–	–	265	0.50	4.0	–	–	–	–	–	–	–	–	–
	T5315	1.6	255	0.50	4.0	–	–	–	240	0.50	4.0	–	–	–	–	–	–	–	–	–
	T7335	1.6	175	0.50	4.0	135	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–
	T8430	1.6	170	0.50	4.0	90	0.45	4.0	135	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9310	1.6	240	0.50	4.0	–	–	–	225	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9315	1.6	220	0.50	4.0	–	–	–	205	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9325	1.6	205	0.50	4.0	120	0.45	4.0	190	0.50	4.0	–	–	–	–	–	–	–	–	–
	T9335	1.6	175	0.50	4.0	105	0.45	4.0	–	–	–	–	–	–	–	–	–	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				

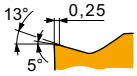
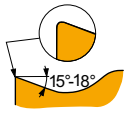
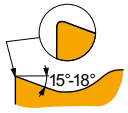
SF geometry with positive design for fine-finish machining and for machining thin walls, with continuous cuts.

WNMG 060404E-SF	**H07**	0.4	–	–	–	90	0.14	1.0	145	0.15	1.0	470	0.18	1.0	45	0.12	0.8	–	–	–
	T6310	0.4	180	0.15	1.0	125	0.14	1.0	145	0.15	1.0	540	0.18	1.0	50	0.12	0.8	35	0.15	1.0
	T7325	0.4	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T7335	0.4	200	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T8315	0.4	195	0.15	1.0	115	0.14	1.0	185	0.15	1.0	585	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8330	0.4	180	0.15	1.0	105	0.14	1.0	170	0.15	1.0	540	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8430	0.4	220	0.15	1.0	120	0.14	1.0	180	0.15	1.0	600	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T9325	0.4	255	0.17	1.0	150	0.15	1.0	240	0.17	1.0	–	–	–	55	0.15	0.8	–	–	–
WNMG 060408E-SF	**H07**	0.8	–	–	–	95	0.18	1.0	155	0.20	1.0	495	0.24	1.0	50	0.14	0.8	–	–	–
	T6310	0.8	200	0.20	1.0	140	0.18	1.0	160	0.20	1.0	600	0.24	1.0	60	0.14	0.8	40	0.15	1.0
	T7335	0.8	220	0.20	1.0	170	0.18	1.0	–	–	–	–	–	–	70	0.16	0.8	–	–	–
	T8315	0.8	210	0.20	1.0	125	0.18	1.0	195	0.20	1.0	630	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8330	0.8	200	0.20	1.0	120	0.18	1.0	190	0.20	1.0	600	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8430	0.8	230	0.20	1.0	125	0.18	1.0	185	0.20	1.0	630	0.24	1.0	45	0.14	0.8	35	0.15	1.0
	T9315	0.8	315	0.20	1.0	–	–	–	295	0.20	1.0	–	–	–	–	–	–	60	0.15	1.0
	T9325	0.8	280	0.20	1.0	165	0.18	1.0	265	0.20	1.0	–	–	–	60	0.16	0.8	–	–	–
WNMG 080404E-SF	**H07**	0.4	–	–	–	90	0.14	1.0	145	0.15	1.0	470	0.18	1.0	45	0.12	0.8	–	–	–
	T6310	0.4	180	0.15	1.0	125	0.14	1.0	145	0.15	1.0	540	0.18	1.0	50	0.12	0.8	35	0.15	1.0
	T7325	0.4	205	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T7335	0.4	200	0.17	1.0	155	0.15	1.0	–	–	–	–	–	–	65	0.15	0.8	–	–	–
	T8315	0.4	195	0.15	1.0	115	0.14	1.0	185	0.15	1.0	585	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8330	0.4	180	0.15	1.0	105	0.14	1.0	170	0.15	1.0	540	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T8430	0.4	220	0.15	1.0	120	0.14	1.0	180	0.15	1.0	600	0.18	1.0	45	0.12	0.8	35	0.15	1.0
	T9315	0.4	300	0.15	1.0	–	–	–	285	0.15	1.0	–	–	–	–	–	–	60	0.15	1.0
	T9325	0.4	255	0.17	1.0	150	0.15	1.0	240	0.17	1.0	–	–	–	55	0.15	0.8	–	–	–
WNMG 080408E-SF	**H07**	0.8	–	–	–	95	0.18	1.0	155	0.20	1.0	495	0.24	1.0	50	0.14	0.8	–	–	–
	T6310	0.8	200	0.20	1.0	140	0.18	1.0	160	0.20	1.0	600	0.24	1.0	60	0.14	0.8	40	0.15	1.0
	T7325	0.8	230	0.20	1.0	175	0.18	1.0	–	–	–	–	–	–	70	0.16	0.8	–	–	–
	T7335	0.8	220	0.20	1.0	170	0.18	1.0	–	–	–	–	–	–	70	0.16	0.8	–	–	–
	T8315	0.8	210	0.20	1.0	125	0.18	1.0	195	0.20	1.0	630	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8330	0.8	200	0.20	1.0	120	0.18	1.0	190	0.20	1.0	600	0.24	1.0	50	0.14	0.8	40	0.15	1.0
	T8430	0.8	230	0.20	1.0	125	0.18	1.0	185	0.20	1.0	630	0.24	1.0	45	0.14	0.8	35	0.15	1.0
	T9315	0.8	315	0.20	1.0	–	–	–	295	0.20	1.0	–	–	–	–	–	–	60	0.15	1.0
	T9325	0.8	280	0.20	1.0	165	0.18	1.0	265	0.20	1.0	–	–	–	60	0.16	0.8	–	–	–
WNMG 080412E-SF	**T7325**	1.2	220	0.25	1.5	170	0.23	1.5	–	–	–	–	–	–	70	0.18	1.2	–	–	–
																				

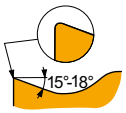
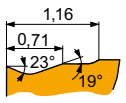
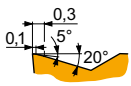
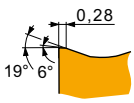
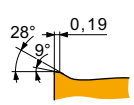
SM geometry with positive design for medium machining, and continuous to interrupted cuts.

WNMG 060404E-SM	**T7325**	0.4	180	0.22	1.7	140	0.20	1.7	–	–	–	–	–	–	55	0.20	1.4	–	–	–
	T7335	0.4	175	0.22	1.7	135	0.20	1.7	–	–	–	–	–	–	55	0.20	1.4	–	–	–
	T8330	0.4	155	0.22	1.7	90	0.20	1.7	145	0.22	1.7	465	0.26	1.7	35	0.20	1.4	30	0.15	1.0
	T8430	0.4	175	0.22	1.7	95	0.20	1.7	140	0.22	1.7	480	0.26	1.7	35	0.20	1.4	30	0.15	1.0
	T9315	0.4	250	0.20	1.7	–	–	–	235	0.20	1.7	–	–	–	–	–	–	50	0.15	1.0
	T9325	0.4	215	0.22	1.7	125	0.20	1.7	200	0.22	1.7	–	–	–	45	0.20	1.4	–	–	–
WNMG 060408E-SM	**T6310**	0.8	175	0.25	1.7	125	0.23	1.7	140	0.25	1.7	525	0.30	1.7	50	0.20	1.4	35	0.15	1.0
	T7325	0.8	200	0.25	1.7	155	0.23	1.7	–	–	–	–	–	–	65	0.20	1.4	–	–	–
	T7335	0.8	195	0.25	1.7	150	0.23	1.7	–	–	–	–	–	–	60	0.20	1.4	–	–	–
	T8330	0.8	175	0.25	1.7	105	0.23	1.7	165	0.25	1.7	525	0.30	1.7	40	0.20	1.4	35	0.15	1.0
	T8430	0.8	195	0.25	1.7	105	0.23	1.7	160	0.25	1.7	540	0.30	1.7	40	0.20	1.4	30	0.15	1.0
	T9325	0.8	240	0.25	1.7	140	0.23	1.7	225	0.25	1.7	–	–	–	50	0.20	1.4	–	–	–
WNMG 060412E-SM	**T7325**	1.2	200	0.30	1.7	155	0.27	1.7	–	–	–	–	–	–	65	0.24	1.4	–	–	–
	T8330	1.2	180	0.30	1.7	105	0.27	1.7	170	0.30	1.7	540	0.36	1.7	45	0.24	1.4	35	0.15	1.0
	T8430	1.2	195	0.30	1.7	105	0.27	1.7	160	0.30	1.7	540	0.36	1.7	40	0.24	1.4	30	0.15	1.0
	T9325	1.2	240	0.30	1.7	140	0.27	1.7	225	0.30	1.7	–	–	–	50	0.24	1.4	–	–	–

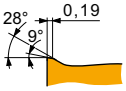
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			SM geometry with positive design for medium machining, and continuous to interrupted cuts.																	
WNMG 080404E-SM	**T6310**	0.4	■ 155	0.22	2.0	■ 110	0.20	2.0	■ 125	0.22	2.0	◪ 465	0.26	2.0	■ 45	0.20	1.6	◪ 30	0.15	1.0
	T7325	0.4	◪ 175	0.22	2.0	■ 135	0.20	2.0	–	–	–	–	–	–	■ 55	0.20	1.6	–	–	–
	T7335	0.4	◪ 170	0.22	2.0	■ 130	0.20	2.0	–	–	–	–	–	–	■ 55	0.20	1.6	–	–	–
	T8330	0.4	■ 155	0.22	2.0	■ 90	0.20	2.0	■ 145	0.22	2.0	◪ 465	0.26	2.0	◪ 35	0.20	1.6	◪ 30	0.15	1.0
	T8430	0.4	■ 170	0.22	2.0	■ 90	0.20	2.0	◪ 135	0.22	2.0	◪ 465	0.26	2.0	◪ 35	0.20	1.6	◪ 25	0.15	1.0
	T9315	0.4	■ 245	0.20	2.0	–	–	–	◪ 230	0.20	2.0	–	–	–	–	–	–	◪ 45	0.15	1.0
	T9325	0.4	■ 210	0.22	2.0	■ 125	0.20	2.0	◪ 195	0.22	2.0	–	–	–	◪ 45	0.20	1.6	–	–	–
WNMG 080408E-SM	**T6310**	0.8	■ 175	0.25	2.0	■ 125	0.23	2.0	■ 140	0.25	2.0	◪ 525	0.30	2.0	■ 50	0.20	1.6	◪ 35	0.15	1.0
	T7325	0.8	◪ 200	0.25	2.0	■ 155	0.23	2.0	–	–	–	–	–	–	■ 65	0.20	1.6	–	–	–
	T7335	0.8	◪ 190	0.25	2.0	■ 145	0.23	2.0	–	–	–	–	–	–	■ 60	0.20	1.6	–	–	–
	T8330	0.8	■ 175	0.25	2.0	■ 105	0.23	2.0	■ 165	0.25	2.0	◪ 525	0.30	2.0	◪ 40	0.20	1.6	◪ 35	0.15	1.0
	T8430	0.8	■ 195	0.25	2.0	■ 105	0.23	2.0	◪ 160	0.25	2.0	◪ 540	0.30	2.0	◪ 40	0.20	1.6	◪ 30	0.15	1.0
	T9315	0.8	■ 265	0.25	2.0	–	–	–	◪ 250	0.25	2.0	–	–	–	–	–	–	◪ 50	0.15	1.0
	T9325	0.8	■ 235	0.25	2.0	■ 140	0.23	2.0	◪ 220	0.25	2.0	–	–	–	◪ 50	0.20	1.6	–	–	–
WNMG 080412E-SM	**T6310**	1.2	■ 175	0.30	2.0	■ 125	0.27	2.0	■ 140	0.30	2.0	◪ 525	0.36	2.0	■ 50	0.24	1.6	◪ 35	0.15	1.0
	T7325	1.2	◪ 195	0.30	2.0	■ 150	0.27	2.0	–	–	–	–	–	–	■ 60	0.24	1.6	–	–	–
	T7335	1.2	◪ 190	0.30	2.0	■ 145	0.27	2.0	–	–	–	–	–	–	■ 60	0.24	1.6	–	–	–
	T8330	1.2	■ 175	0.30	2.0	■ 105	0.27	2.0	■ 165	0.30	2.0	◪ 525	0.36	2.0	◪ 40	0.24	1.6	◪ 35	0.15	1.0
	T8430	1.2	■ 190	0.30	2.0	■ 105	0.27	2.0	◪ 155	0.30	2.0	◪ 525	0.36	2.0	◪ 40	0.24	1.6	◪ 30	0.15	1.0
	T9315	1.2	■ 260	0.30	2.0	–	–	–	◪ 245	0.30	2.0	–	–	–	–	–	–	◪ 50	0.15	1.0
	T9325	1.2	■ 235	0.30	2.0	■ 140	0.27	2.0	◪ 220	0.30	2.0	–	–	–	◪ 50	0.24	1.6	–	–	–
																				
			ER-SI geometry with positive right-handed geometry for fine-finish to semi-rough machining, and continuous cuts.																	
WNMG 060404ER-SI	**T8330**	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–
WNMG 080404ER-SI	**T7325**	0.4	◪ 220	0.20	1.7	■ 170	0.18	1.7	–	–	–	–	–	–	◪ 70	0.18	1.4	–	–	–
	T7335	0.4	◪ 215	0.20	1.7	■ 165	0.18	1.7	–	–	–	–	–	–	◪ 65	0.18	1.4	–	–	–
	T8315	0.4	◪ 205	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 50	0.18	1.4	–	–	–
	T8330	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–
WNMG 080408ER-SI	**T7325**	0.8	◪ 215	0.35	1.7	■ 165	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T7335	0.8	◪ 205	0.35	1.7	■ 155	0.32	1.7	–	–	–	–	–	–	◪ 65	0.25	1.4	–	–	–
	T8315	0.8	◪ 205	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 50	0.25	1.4	–	–	–
	T8330	0.8	■ 195	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T8430	0.8	■ 210	0.35	1.7	■ 115	0.32	1.7	–	–	–	◪ 585	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T9325	0.8	■ 255	0.35	1.7	■ 150	0.32	1.7	–	–	–	–	–	–	◪ 55	0.25	1.4	–	–	–
WNMG 080412ER-SI	**T8430**	1.2	■ 225	0.35	1.7	■ 120	0.32	1.7	–	–	–	◪ 615	0.42	1.7	◪ 45	0.25	1.4	–	–	–
	T9325	1.2	■ 265	0.35	1.7	■ 155	0.32	1.7	–	–	–	–	–	–	◪ 55	0.25	1.4	–	–	–
																				
			EL-SI geometry with positive left-handed design for fine-finish to semi-rough machining, and continuous cuts.																	
WNMG 060404EL-SI	**T8330**	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–
WNMG 080404EL-SI	**T7325**	0.4	◪ 220	0.20	1.7	■ 170	0.18	1.7	–	–	–	–	–	–	◪ 70	0.18	1.4	–	–	–
	T7335	0.4	◪ 215	0.20	1.7	■ 165	0.18	1.7	–	–	–	–	–	–	◪ 65	0.18	1.4	–	–	–
	T8315	0.4	◪ 205	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 50	0.18	1.4	–	–	–
	T8330	0.4	■ 195	0.20	1.7	■ 115	0.18	1.7	–	–	–	◪ 585	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T8430	0.4	■ 225	0.20	1.7	■ 120	0.18	1.7	–	–	–	◪ 615	0.24	1.7	◪ 45	0.18	1.4	–	–	–
	T9325	0.4	■ 270	0.20	1.7	■ 160	0.18	1.7	–	–	–	–	–	–	◪ 60	0.18	1.4	–	–	–

Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			E																	
EL-SI geometry with positive left-handed design for fine-finish to semi-rough machining, and continuous cuts.																				
WNMG 080408EL-SI	**T7325**	0.8	215	0.35	1.7	165	0.32	1.7	–	–	–	–	–	–	65	0.25	1.4	–	–	–
	T7335	0.8	205	0.35	1.7	155	0.32	1.7	–	–	–	–	–	–	65	0.25	1.4	–	–	–
	T8315	0.8	205	0.35	1.7	120	0.32	1.7	–	–	–	615	0.42	1.7	50	0.25	1.4	–	–	–
	T8330	0.8	195	0.35	1.7	115	0.32	1.7	–	–	–	585	0.42	1.7	45	0.25	1.4	–	–	–
	T8430	0.8	210	0.35	1.7	115	0.32	1.7	–	–	–	585	0.42	1.7	45	0.25	1.4	–	–	–
	T9325	0.8	255	0.35	1.7	150	0.32	1.7	–	–	–	–	–	–	55	0.25	1.4	–	–	–
WNMG 080412EL-SI	**T8430**	1.2	225	0.35	1.7	120	0.32	1.7	–	–	–	615	0.42	1.7	45	0.25	1.4	–	–	–
																				
			W E																	
W-F wiper geometry for fine to finish machining with increased feed rates and improved surface finish.																				
WNMG 060408W-F	**T9315**	0.8	215	0.45	0.8	–	–	–	200	0.45	0.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.45	0.8	–	–	–	180	0.45	0.8	–	–	–	–	–	–	–	–	–
WNMG 080404W-F	**T9315**	0.4	250	0.25	0.4	–	–	–	235	0.25	0.4	–	–	–	–	–	–	–	–	–
	T9325	0.4	225	0.25	0.4	–	–	–	210	0.25	0.4	–	–	–	–	–	–	–	–	–
																				
			W S																	
W-M wiper geometry for semi-rough to rough machining with increased feed rates and improved surface finish.																				
WNMG 060408W-M	**T9310**	0.8	220	0.45	1.2	–	–	–	205	0.45	1.2	–	–	–	–	–	–	–	–	–
	T9315	0.8	205	0.45	1.2	–	–	–	190	0.45	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.45	1.2	–	–	–	180	0.45	1.2	–	–	–	–	–	–	–	–	–
WNMG 060412W-M	**T5315**	1.2	235	0.55	1.2	–	–	–	220	0.55	1.2	–	–	–	–	–	–	–	–	–
	T9315	1.2	205	0.55	1.2	–	–	–	190	0.55	1.2	–	–	–	–	–	–	–	–	–
	T9325	1.2	180	0.55	1.2	–	–	–	170	0.55	1.2	–	–	–	–	–	–	–	–	–
WNMG 080408W-M	**T9315**	0.8	200	0.45	1.5	–	–	–	190	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.45	1.5	–	–	–	175	0.45	1.5	–	–	–	–	–	–	–	–	–
WNMG 080412W-M	**T9325**	1.2	180	0.55	1.5	–	–	–	170	0.55	1.5	–	–	–	–	–	–	–	–	–
																				
			W S																	
W-MR wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																				
WNMG 060408W-MR	**T9315**	0.8	205	0.45	1.2	–	–	–	190	0.45	1.2	–	–	–	–	–	–	–	–	–
	T9325	0.8	190	0.45	1.2	110	0.41	1.2	180	0.45	1.2	–	–	–	–	–	–	–	–	–
WNMG 080404W-MR	**T9315**	0.4	200	0.30	1.5	–	–	–	190	0.30	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.4	180	0.30	1.5	105	0.27	1.5	170	0.30	1.5	–	–	–	–	–	–	–	–	–
WNMG 080408W-MR	**T5315**	0.8	230	0.45	1.5	–	–	–	215	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9310	0.8	215	0.45	1.5	–	–	–	200	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9315	0.8	200	0.45	1.5	–	–	–	190	0.45	1.5	–	–	–	–	–	–	–	–	–
	T9325	0.8	185	0.45	1.5	110	0.41	1.5	175	0.45	1.5	–	–	–	–	–	–	–	–	–
WNMG 080412W-MR	**T5315**	1.2	230	0.55	1.5	–	–	–	215	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9310	1.2	210	0.55	1.5	–	–	–	195	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9315	1.2	200	0.55	1.5	–	–	–	190	0.55	1.5	–	–	–	–	–	–	–	–	–
	T9325	1.2	180	0.55	1.5	105	0.50	1.5	170	0.55	1.5	–	–	–	–	–	–	–	–	–
																				
			W S																	
W-NM wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																				
WNMG 060408W-NM	**T7325**	0.8	220	0.25	1.8	170	0.23	1.8	–	–	–	–	–	–	70	0.20	1.4	–	–	–
	T7335	0.8	215	0.25	1.8	165	0.23	1.8	–	–	–	–	–	–	65	0.20	1.4	–	–	–
	T9315	0.8	290	0.25	1.8	–	–	–	275	0.25	1.8	–	–	–	–	–	–	–	–	–
	T9325	0.8	265	0.25	1.8	155	0.23	1.8	250	0.25	1.8	–	–	–	55	0.20	1.4	–	–	–

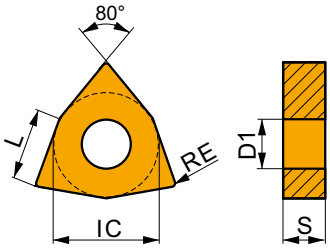
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			W-NM wiper geometry for finish to rough machining with increased feed rates and improved surface finish.																	
WNMG 080404W-NM	**T7325**	0.4	195	0.20	2.1	150	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T7335	0.4	190	0.20	2.1	145	0.18	2.1	–	–	–	–	–	–	60	0.16	1.7	–	–	–
	T9315	0.4	270	0.20	2.1	–	–	–	255	0.20	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.4	240	0.20	2.1	140	0.18	2.1	225	0.20	2.1	–	–	–	50	0.16	1.7	–	–	–
WNMG 080408W-NM	**T7325**	0.8	215	0.25	2.1	165	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T7335	0.8	210	0.25	2.1	160	0.23	2.1	–	–	–	–	–	–	65	0.20	1.7	–	–	–
	T9315	0.8	290	0.25	2.1	–	–	–	275	0.25	2.1	–	–	–	–	–	–	–	–	–
	T9325	0.8	260	0.25	2.1	155	0.23	2.1	245	0.25	2.1	–	–	–	55	0.20	1.7	–	–	–
WNMG 080412W-NM	**T7325**	1.2	215	0.30	2.1	165	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T7335	1.2	210	0.30	2.1	160	0.27	2.1	–	–	–	–	–	–	65	0.24	1.7	–	–	–
	T9315	1.2	285	0.30	2.1	–	–	–	270	0.30	2.1	–	–	–	–	–	–	–	–	–

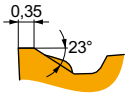
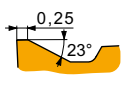
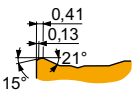
WNMM

PRAMET

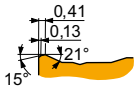
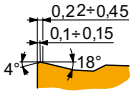
	IC [mm]	D1 [mm]	L [mm]	S [mm]
0804	12.700	5.16	8.70	4.76
1006	15.875	6.35	10.80	6.35
1306	19.050	7.94	13.00	6.35



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			DR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WNMM 100608E-DR	**T9325**	0.8	205	0.40	5.0	120	0.36	5.0	190	0.40	5.0	–	–	–	–	–	–	–	–	–
	T9335	0.8	175	0.40	5.0	105	0.36	5.0	–	–	–	–	–	–	–	–	–	–	–	–
WNMM 130612E-DR	**T9325**	1.2	200	0.45	6.0	120	0.41	6.0	190	0.45	6.0	–	–	–	–	–	–	–	–	–
	T9335	1.2	170	0.45	6.0	100	0.41	6.0	–	–	–	–	–	–	–	–	–	–	–	–
																				
			NR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WNMM 080408E-NR	**T7325**	0.8	175	0.40	3.0	135	0.36	3.0	–	–	–	–	–	–	55	0.28	2.4	–	–	–
	T8330	0.8	155	0.40	3.0	90	0.36	3.0	145	0.40	3.0	–	–	–	35	0.28	2.4	–	–	–
	T8430	0.8	165	0.40	3.0	90	0.36	3.0	135	0.40	3.0	–	–	–	35	0.28	2.4	–	–	–
	T9325	0.8	195	0.40	3.0	115	0.36	3.0	185	0.40	3.0	–	–	–	40	0.28	2.4	–	–	–
																				
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WNMM 080408E-NR2	**T7335**	0.8	160	0.40	4.0	120	0.36	4.0	–	–	–	–	–	–	50	0.28	3.2	–	–	–
	T9325	0.8	190	0.40	4.0	110	0.36	4.0	180	0.40	4.0	–	–	–	40	0.28	3.2	–	–	–

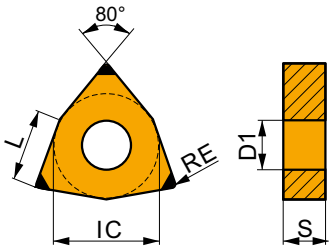
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			NR2 geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WNMM 080412E-NR2	**T7325**	1.2	175	0.45	4.0	135	0.41	4.0	–	–	–	–	–	–	55	0.32	3.2	–	–	–
	T9325	1.2	190	0.45	4.0	110	0.41	4.0	180	0.45	4.0	–	–	–	40	0.32	3.2	–	–	–
			OR geometry for semi-rough to rough machining, and continuous to interrupted cuts.																	
WNMM 080408E-OR	**T8330**	0.8	150	0.40	4.0	90	0.36	4.0	140	0.40	4.0	–	–	–	35	0.28	3.2	–	–	–
	T8430	0.8	155	0.40	4.0	85	0.36	4.0	130	0.40	4.0	–	–	–	30	0.28	3.2	–	–	–
	T9325	0.8	190	0.40	4.0	110	0.36	4.0	180	0.40	4.0	–	–	–	40	0.28	3.2	–	–	–
	T9335	0.8	165	0.40	4.0	95	0.36	4.0	–	–	–	–	–	–	35	0.28	3.2	–	–	–
WNMM 080412E-OR	**T9325**	1.2	190	0.45	4.0	110	0.41	4.0	180	0.45	4.0	–	–	–	40	0.36	3.2	–	–	–
	T9335	1.2	170	0.45	4.0	100	0.41	4.0	–	–	–	–	–	–	35	0.36	3.2	–	–	–
WNMM 080416E-OR	**T9325**	1.6	195	0.50	4.0	115	0.45	4.0	185	0.50	4.0	–	–	–	40	0.40	3.2	–	–	–
WNMM 130612E-OR	**T9325**	1.2	185	0.45	6.0	110	0.41	6.0	175	0.45	6.0	–	–	–	40	0.36	4.8	–	–	–
WNMM 130616E-OR	**T9325**	1.6	180	0.50	6.0	105	0.45	6.0	170	0.50	6.0	–	–	–	40	0.40	4.8	–	–	–

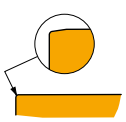
WNGA CBN

PRAMET

	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
0804	12.700	5.16	8.70	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			For finish machining and continuous cuts.																	
WNGA 080408S01020C	**TB310**	0.8	–	–	–	–	–	–	530	0.15	0.6	–	–	–	140	0.11	0.5	110	0.15	1.0
			For finish machining and continuous cuts.																	
WNGA080408S01020WC	**TB310**	0.8	–	–	–	–	–	–	530	0.15	0.6	–	–	–	140	0.11	0.5	110	0.15	1.0

DWLN(RL) EXT

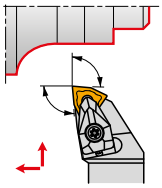
P M K N S H

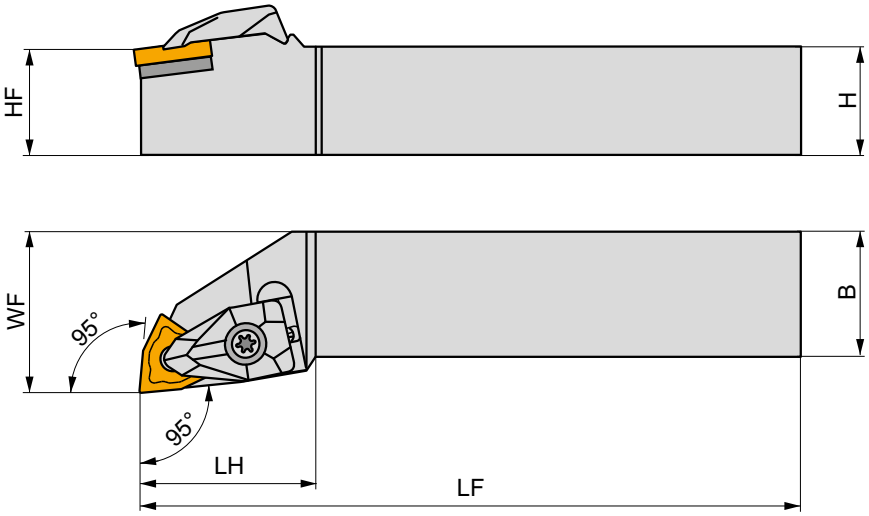
PRAMET

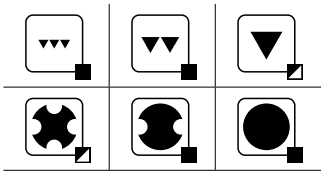
D

External Double Clamp Holder with 95° Cutting Angle for WN.. Insert

External Right/Left hand double clamp turning holder with 95° cutting angle. Suited for longitudinal turning with shoulder, face, taper and chamfer turning with negative WN.. 06 to 13 inserts. Available with shank size 16x16 up to 40x40 mm. Body treated for longer tool life.







	Product	H	B	HF	WF	LF	LH	LAMS	GAMO	kg			
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]	[°]				
R	DWLNR 1616 H 06	16	16	16	20	100	26.4	-6	-6	0.22	GI028	DW06	–
R	DWLNR 2020 K 06	20	20	20	25	125	27.1	-6	-6	0.41	GI028	DW06	–
R	DWLNR 2525 M 06	25	25	25	32	150	27.1	-6	-6	0.75	GI028	DW06	–
R	DWLNR 2020 K 08	20	20	20	25	125	34.3	-6	-6	0.43	GI072	DW08	AT004
R	DWLNR 2525 M 08	25	25	25	32	150	35	-6	-6	0.75	GI072	DW08	AT004
R	DWLNR 3225 P 08	32	25	32	32	170	35	-6	-6	1.01	GI072	DW08	AT004
R	DWLNR 3225 P 10	32	25	32	32	170	38	-6	-6	1.06	GI166	DW10	–
R	DWLNR 3232 P 13	32	32	32	40	170	40	-6	-6	1.44	GI167	DW13	–
R	DWLNR 4040 S 13	40	40	40	50	250	41	-6	-6	3.19	GI167	DW13	–
L	DWLNL 1616 H 06	16	16	16	20	100	26.4	-6	-6	0.22	GI028	DW06	–
L	DWLNL 2020 K 06	20	20	20	25	125	27.1	-6	-6	0.41	GI028	DW06	–
L	DWLNL 2525 M 06	25	25	25	32	150	27.1	-6	-6	0.76	GI028	DW06	–
L	DWLNL 2020 K 08	20	20	20	25	125	34.3	-6	-6	0.43	GI072	DW08	AT004
L	DWLNL 2525 M 08	25	25	25	32	150	35	-6	-6	0.75	GI072	DW08	AT004
L	DWLNL 3225 P 08	32	25	32	32	170	35	-6	-6	1.10	GI072	DW08	AT004
L	DWLNL 3225 P 10	32	25	32	32	170	38	-6	-6	1.14	GI166	DW10	–
L	DWLNL 3232 P 13	32	32	32	40	170	40	-6	-6	1.45	GI167	DW13	–
L	DWLNL 4040 S 13	40	40	40	50	250	41	-6	-6	3.17	GI167	DW13	–

GI028	WN.. 0604..
GI072	WN.. 0804..
GI166	WN.. 1006..
GI167	WN.. 1306..

		Nm				
DW06	DCS 09	1.7	DWS 328-01	US 2004-T09P	FLAG T09P	–
DW08	DCS 12	3.9	DWS 331-12	US 2002-T15P	FLAG T15P/3,5	–
DW10	DCS 16	6.4	DWN 100612	US 5018-T20P	–	LK T20P
DW13	DCS 19	6.4	DWN 130612	US 6013-T20P	–	LK T20P

AT004a	CER WN.N 0804..	DCS 12C4
AT004b	CER WN.A 0804..	DCS 12C2

MWLN(RL) EXT

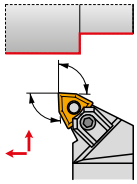
P M K N S H

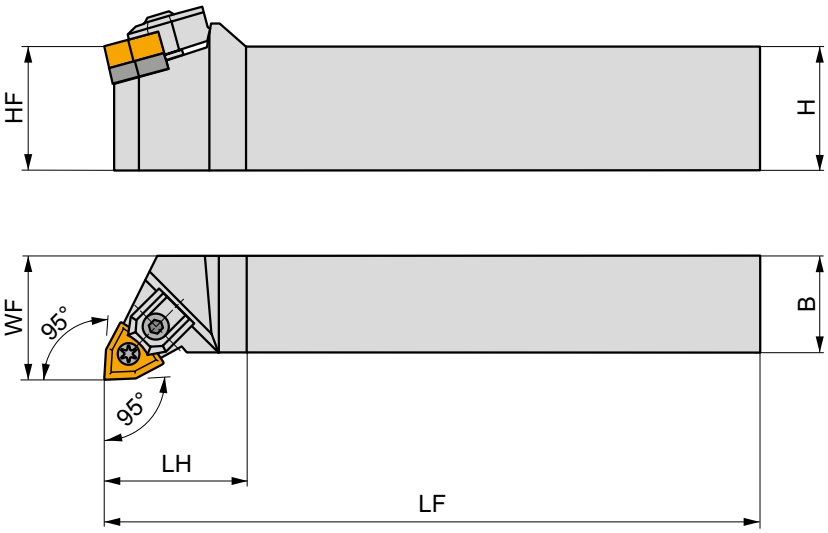
PRAMET

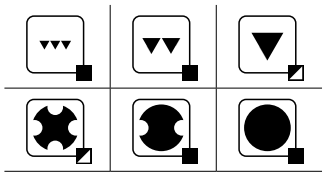
M

External Multi-Clamp Holder with 95° Cutting Angle for WN.. Insert

External Right/Left hand multi-clamp turning holder with 95° cutting angle. Suited for longitudinal turning with shoulder, face, taper and chamfer turning with negative WN.. 08 inserts. Available with shank size 25x25 up to 40x40 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	MWLNR 2525 M 08	25	25	25	32	150	32	-6	-6	0.73	GI072	MW1
	MWLNR 3225 P 08	32	25	32	32	170	32	-6	-6	1.30	GI072	MW1
	MWLNR 4040 R 08	40	40	40	50	200	32	-6	-6	2.50	GI072	MW1
L	MWLNL 2525 M 08	25	25	25	32	150	32	-6	-6	0.70	GI072	MW1
	MWLNL 3225 P 08	32	25	32	32	170	32	-6	-6	1.02	GI072	MW1
	MWLNL 4040 R 08	40	40	40	50	200	32	-6	-6	2.50	GI072	MW1

GI072	WN.. 0804..

MW1	UE 05	5.0 Nm	WNW 080412	UC 51	HS 0408	HXK 3

PWLN(RL) EXT

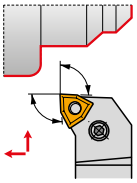
P M K N S H

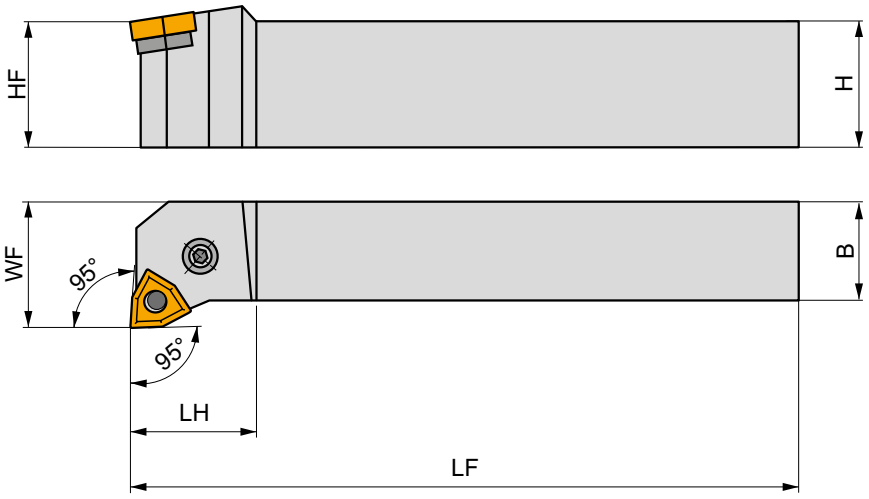
PRAMET

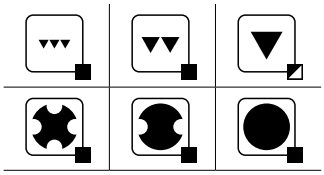
P

External Lever Lock Holder with 95° Cutting Angle for WN.. Insert

External Right/Left hand lever lock turning holder with 95° cutting angle. Suited for longitudinal turning with shoulder, face, taper and chamfer turning with negative WN.. 06 and 08 inserts. Available with shank size 16x16 up to 32x25 mm. Body treated for longer tool life.







	Product	H [mm]	B [mm]	HF [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]	kg		
R	PWLNR 1616 H 0604	16	16	16	20	100	20	-6	-6	0.23	GI028	PW11
	PWLNR 2020 K 0604	20	20	20	25	125	20	-6	-6	0.40	GI028	PW10
	PWLNR 2525 M 0604	25	25	25	32	150	20	-6	-6	0.78	GI028	PW10
	PWLNR 2020 K 08	20	20	20	25	125	22	-6	-6	0.42	GI072	PW22
	PWLNR 2525 M 08	25	25	25	32	150	22	-6	-6	0.73	GI072	PW20
	PWLNR 3225 P 08	32	25	32	32	170	22	-6	-6	1.05	GI072	PW20
L	PWLNL 1616 H 0604	16	16	16	20	100	20	-6	-6	0.21	GI028	PW11
	PWLNL 2020 K 0604	20	20	20	25	125	20	-6	-6	0.40	GI028	PW10
	PWLNL 2525 M 0604	25	25	25	32	150	20	-6	-6	0.75	GI028	PW10
	PWLNL 2020 K 08	20	20	20	25	125	22	-6	-6	0.40	GI072	PW22
	PWLNL 2525 M 08	25	25	25	32	150	22	-6	-6	0.74	GI072	PW20
	PWLNL 3225 P 08	32	25	32	32	170	22	-6	-6	1.05	GI072	PW20

GI028	WN.. 0604..
GI072	WN.. 0804..

				Nm					
PW10	WNU 060308	PU 01	US 34	5.0	M 6x0.75	19	NT 04	MT 04	HXK 3
PW11	WNU 060308	PU 01	US 46	5.0	M 6x0.75	13.2	NT 04	MT 04	HXK 3
PW20	WNU 080312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PW22	WNU 080312	PU 02	US 42	6.0	M 8x1	21	NT 05	MT 05	HXK 4

C.-DWLN(RL) EXT

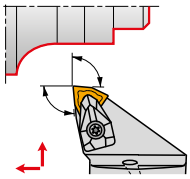
P M K N S H

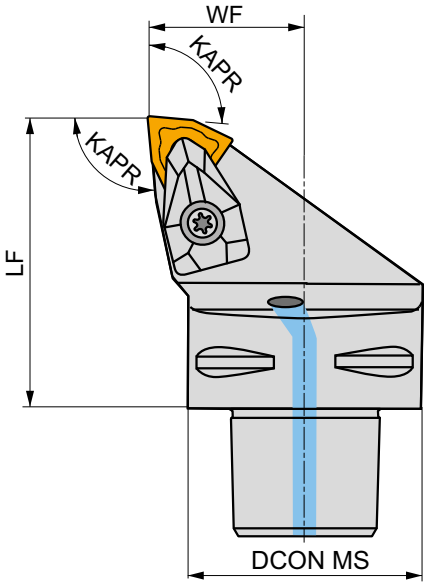
PRAMET

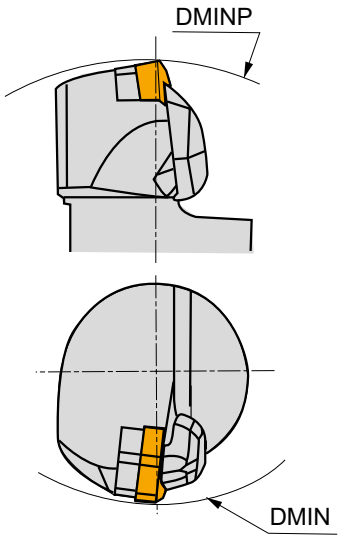
D

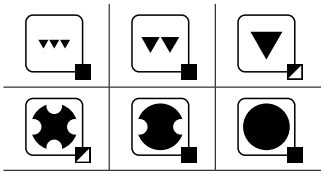
External PSC Quick Change Tool, Double Clamp, 95° Cutting Angle, WN.. Ins

External Right/Left hand double clamp tool, through coolant, with 95° cutting angle for face and longitudinal turning with shoulder, taper and chamfering with negative WN.. 06 and 08 inserts. Available with PSC (Polygon Shank Coupling) size C4 up to C6. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	DMINP [mm]	WF [mm]	LF [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg			
R	C4-DWLNR-27050-06	40	60	140	27	50	95	-6	-6	✓	0.42	GI028	C-DW06	–
	C4-DWLNR-27050-08	40	110	140	27	50	95	-6	-6	✓	0.42	GI072	C-DW08-1	AT004
	C5-DWLNR-35060-08	50	110	165	35	60	95	-6	-6	✓	0.74	GI072	C-DW08-2	AT004
	C6-DWLNR-45065-08	63	110	190	45	65	95	-6	-6	✓	1.34	GI072	C-DW08-2	AT004
L	C4-DWLNL-27050-06	40	60	140	27	50	95	-6	-6	✓	0.43	GI028	C-DW06	–
	C4-DWLNL-27050-08	40	110	140	27	50	95	-6	-6	✓	0.42	GI072	C-DW08-1	AT004
	C5-DWLNL-35060-08	50	110	165	35	60	95	-6	-6	✓	0.76	GI072	C-DW08-2	AT004
	C6-DWLNL-45065-08	63	110	190	45	65	95	-6	-6	✓	1.34	GI072	C-DW08-2	AT004

GI028	WN.. 0604..
GI072	WN.. 0804..

		Nm				
C-DW06	DCS 09	1.7	DWS 328-01	US 2004-T09P	FLAG T09P	CN 034-01
C-DW08-1	DCS 12	3.9	DWS 331-12	US 2002-T15P	FLAG T15P/3,5	CN 034-01
C-DW08-2	DCS 12	3.9	DWS 331-12	US 2002-T15P	FLAG T15P/3,5	CN 045-01

AT004a	CER WN.N 0804..	DCS 12C4
AT004b	CER WN.A 0804..	DCS 12C2

DWLN(RL) INT

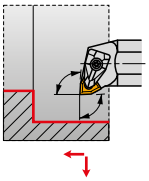
P M K N S H

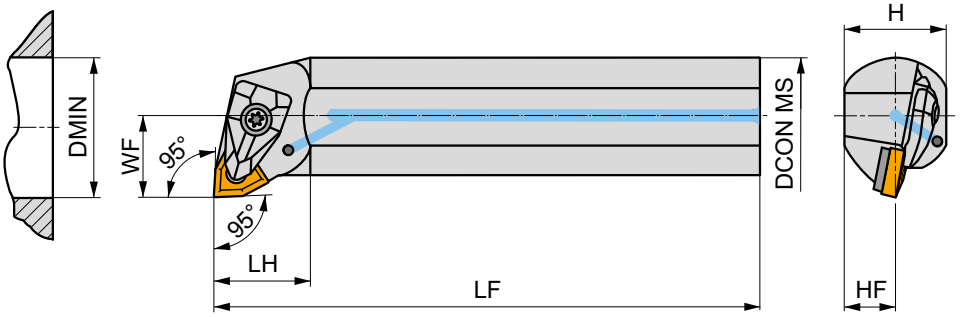
PRAMET

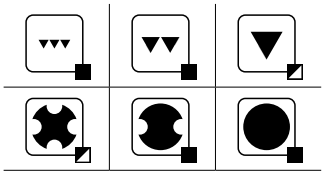
D

Internal Double Clamp Boring Bar with 95° Cutting Angle for WN.. Insert

Internal Right/Left hand double clamp boring bar, through coolant, 95° cutting angle for negative WN.. 06 and 08 inserts. Minimum internal turning diameter Ø32 mm. For internal taper, longitudinal turning with shoulder and chamfer turning. shank sizes Ø25 up to Ø50 mm available. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	GAMO [°]		kg		
R	A25T-DWLNR 06	25	32	17	23	11.5	300	31	-14	-6	✓	0.97	GI028	DW06
	A25T-DWLNR 08	25	33	17	23	11.5	300	31	-12	-6	✓	0.98	GI072	DWI08
	A32T-DWLNR 08	32	40	22	30	15	300	33	-10	-6	✓	1.71	GI072	DWI08
	A40T-DWLNR 08	40	50	27	37	18.5	300	36	-13	-6	✓	2.59	GI072	DW08
	A50U-DWLNR 08	50	63	35	47	23.5	350	39	-11	-6	✓	5.24	GI072	DW08
L	A25T-DWLNL 06	25	32	17	23	11.5	300	31	-14	-6	✓	0.97	GI028	DW06
	A25T-DWLNL 08	25	33	17	23	11.5	300	31	-12	-6	✓	0.98	GI072	DWI08
	A32T-DWLNL 08	32	40	22	30	15	300	33	-10	-6	✓	1.70	GI072	DWI08
	A40T-DWLNL 08	40	50	27	37	18.5	300	36	-13	-6	✓	2.59	GI072	DW08
	A50U-DWLNL 08	50	63	35	47	23.5	350	39	-11	-6	✓	5.25	GI072	DW08

GI028	WN.. 0604..
GI072	WN.. 0804..

		Nm			
DW06	DCS 09	1.7	DWS 328-01	US 2004-T09P	FLAG T09P
DW08	DCS 12	3.9	DWS 331-12	US 2002-T15P	FLAG T15P/3,5
DWI08	DCS 12	3.9	DWS 328-02	US 2002-T15P	FLAG T15P/3,5

PWLN(RL) INT

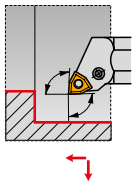
P M K N S H

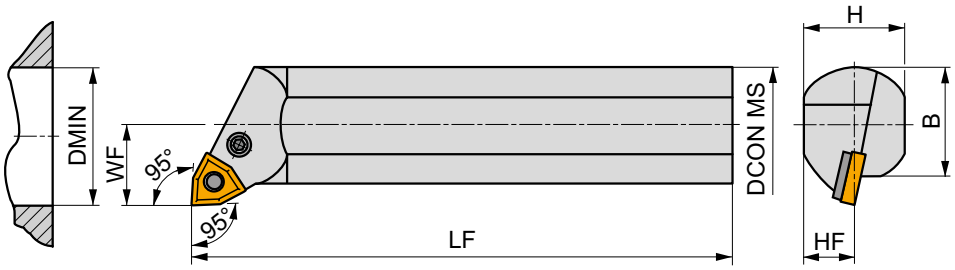
PRAMET

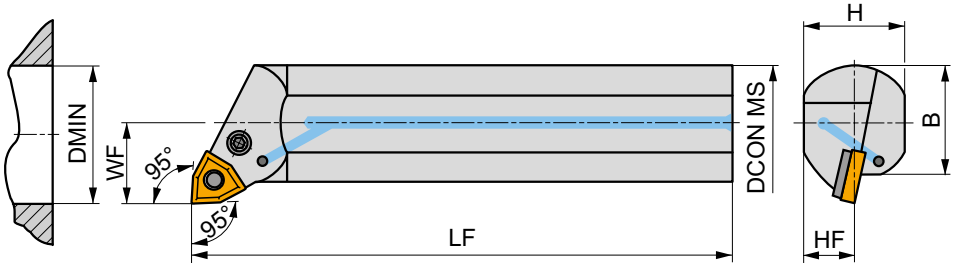
P

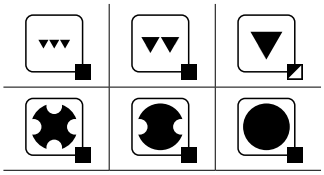
Internal Lever Lock Boring Bar with 95° Cutting Angle for WN.. Insert

Internal Right/Left hand lever lock boring bar, through coolant available, 95° cutting angle for WN.. 06 and 08 inserts. Minimum internal turning diameter Ø20 mm. For internal taper and longitudinal turning with shoulder and chamfer turning. Shank sizes Ø16 to Ø60 mm available. Body treated for longer tool life.









	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	B [mm]	LF [mm]	LAMS [°]	GAMO [°]		kg		
R	A16M-PWLNR 0604	16	20	11	15	15	150	-13.5	-6	✓	0.22	GI028	PW09
	A20Q-PWLNR 0604	20	27	13	18	18	180	-13.5	-6	✓	0.36	GI028	PW09
	S25T-PWLNR 0604	25	32	17	23	23	300	-12	-6	–	1.10	GI028	PW11
	A32S-PWLNR 0604	32	40	22	30	30	250	-12	-6	✓	1.30	GI028	PW11
	A25R-PWLNR 08	25	32	17	23	23	200	-12	-6	✓	0.66	GI072	PW25
	S25T-PWLNR 08	25	32	17	23	23	300	-12	-6	–	1.10	GI072	PW25
	A32S-PWLNR 08	32	40	22	30	30	250	-12	-6	✓	1.46	GI072	PW21
	S32U-PWLNR 08	32	40	22	30	30	350	-12	-6	–	2.09	GI072	PW21
	A40T-PWLNR 08	40	50	27	38	38	300	-12	-6	✓	2.40	GI072	PW20
	A50U-PWLNR 08	50	63	35	47	48.5	350	-12	-6	✓	4.88	GI072	PW20
	A60V-PWLNR 08	60	80	43	57	58.5	400	-12	-6	✓	8.10	GI072	PW20
L	A16M-PWLNL 0604	16	20	11	15	15	150	-13.5	-6	✓	0.22	GI028	PW09
	A20Q-PWLNL 0604	20	27	13	18	18	180	-13.5	-6	✓	0.36	GI028	PW09
	S25T-PWLNL 0604	25	32	17	23	23	300	-12	-6	–	0.98	GI028	PW11
	A32S-PWLNL 0604	32	40	22	30	30	250	-12	-6	✓	1.28	GI028	PW11
	A25R-PWLNL 08	25	32	17	23	23	200	-12	-6	✓	0.75	GI072	PW25
	S25T-PWLNL 08	25	32	17	23	23	300	-12	-6	–	1.01	GI072	PW25
	A32S-PWLNL 08	32	40	22	30	30	250	-12	-6	✓	1.47	GI072	PW21
	S32U-PWLNL 08	32	40	22	30	30	350	-12	-6	–	2.08	GI072	PW21
	A40T-PWLNL 08	40	50	27	38	38	300	-12	-6	✓	2.90	GI072	PW20
	A50U-PWLNL 08	50	63	35	47	48.5	350	-12	-6	✓	4.88	GI072	PW20
	A60V-PWLNL 08	60	80	43	57	58.5	400	-12	-6	✓	8.70	GI072	PW20

GI028	WN.. 0604..
GI072	WN.. 0804..

									
PW09	–	PU 3611-A	PS 0512-A	2.0	M 5	12	–	–	HXK 2
PW11	WNU 060308	PU 01	US 46	5.0	M 6x0.75	13.2	NT 04	MT 04	HXK 3
PW20	WNU 080312	PU 02	US 35	6.0	M 8x1	22.5	NT 05	MT 05	HXK 4
PW21	WNU 080312	PU 02	US 41	6.0	M 8x1	17	NT 05	MT 05	HXK 4
PW25	–	PU 32	US 46	5.0	M 6x0.75	13.2	–	–	HXK 3

C.-DWLN(RL) INT

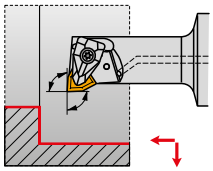
P M K N S H

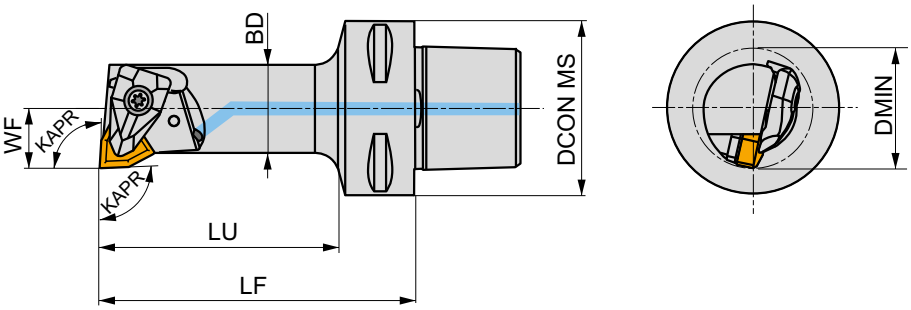
PRAMET

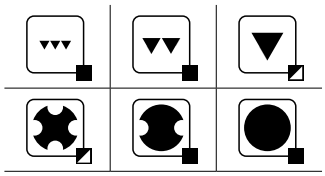
D

Internal PSC Quick Change Tool, Double Clamp, 95° Cutting Angle, WN.. Insert

Internal Right/Left hand double clamp tool, through coolant, with 95° cutting angle for internal taper and longitudinal turning with shoulder and chamfering with WN.. 06 and 08 inserts, minimum internal diameter Ø27 mm. Available with PSC shank (Polygon Shank Coupling) size C4. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	WF [mm]	LF [mm]	LU [mm]	BD [mm]	KAPR [°]	LAMS [°]	GAMO [°]		kg		
R	C4-DWLNR-13075-06	40	27	13	75	52	20	95	-17	-6	✓	0.42	GI028	DW06
	C4-DWLNR-17090-08	40	33	17	90	68	25	95	-12	-6	✓	0.53	GI072	DWI08
L	C4-DWLNL-13075-06	40	27	13	75	52	20	95	-17	-6	✓	0.42	GI028	DW06
	C4-DWLNL-17090-08	40	33	17	90	68	25	95	-12	-6	✓	0.53	GI072	DWI08

GI028	WN.. 0604..
GI072	WN.. 0804..

		Nm			
DW06	DCS 09	1.7	DWS 328-01	US 2004-T09P	FLAG T09P
DWI08	DCS 12	3.9	DWS 328-02	US 2002-T15P	FLAG T15P/3,5

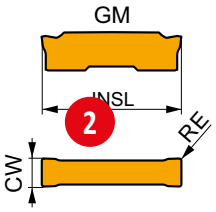
PARTING-OFF & GROOVING

1 GL. D - GM

PRAMET

	CW [mm]	CWTOLL [mm]	CWTOLU [mm]	INSL [mm]
200	2.00	-0.05	0.05	25.0
300	3.00	-0.05	0.05	25.0
400	4.00	-0.05	0.05	25.0
500	5.00	-0.05	0.05	25.0
600	6.00	-0.05	0.05	25.0

3



Workpiece material suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap).

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
4	5		6																	
GM geometry for grooving and longitudinal turning and continuous to interrupted cuts.																				
GL2-D200M02-GM	G8330	0.2	190	0.10	0.8	110	0.09	0.8	180	0.10	0.8	–	–	–	45	0.08	0.6	–	–	–
7	T7325	0.2	220	0.10	0.8	170	0.09	0.8	–	–	–	–	–	–	70	0.08	0.6	–	–	–
GL3-D300M02-GM	G8330	0.2	150	0.20	1.0	90	0.18	1.0	140	0.20	1.0	–	–	–	35	0.14	0.8	–	–	–
	T7325	0.2	175	0.20	1.0	135	0.18	1.0	–	–	–	–	–	–	55	0.14	0.8	–	–	–
GL3-D300M04-GM	G8330	0.4	160	0.20	1.0	95	0.18	1.0	150	0.20	1.0	–	–	–	40	0.14	0.8	–	–	–
	T7325	0.4	185	0.20	1.0	140	0.18	1.0	–	–	–	–	–	–	60	0.14	0.8	–	–	–
GL4-D400M04-GM	G8330	0.4	150	0.25	1.2	90	0.23	1.2	140	0.25	1.2	–	–	–	35	0.18	1.0	–	–	–
	T7325	0.4	170	0.25	1.2	130	0.23	1.2	–	–	–	–	–	–	55	0.18	1.0	–	–	–
GL4-D400M08-GM	G8330	0.8	180	0.25	1.2	105	0.23	1.2	170	0.25	1.2	–	–	–	45	0.18	1.0	–	–	–
	T7325	0.8	200	0.25	1.2	155	0.23	1.2	–	–	–	–	–	–	65	0.18	1.0	–	–	–
GL5-D500M08-GM	G8330	0.8	170	0.30	1.2	100	0.27	1.2	160	0.30	1.2	–	–	–	40	0.21	1.0	–	–	–
	T7325	0.8	190	0.30	1.2	145	0.27	1.2	–	–	–	–	–	–	60	0.21	1.0	–	–	–
GL6-D600M08-GM	G8330	0.8	170	0.30	1.2	100	0.27	1.2	160	0.30	1.2	–	–	–	40	0.21	1.0	–	–	–

8 9 10 11

GL5-D500M08-GM:T7325 Use full insert specification code when ordering!

- Grade
- Include colon
- ISO insert code

Typical page with turning inserts displayed – specific page details will differ.

PARTING – OFF & GROOVING INSERTS – PAGE OVERVIEW

Pos.	Description
1	Designation of insert
2	Schematic drawing of insert
3	Table with insert sizes [mm]
4	Picture of representative insert
5	Profile of main cutting edge
6	Icons – specific features and cutting edge type

Pos.	Description
7	ISO insert code
8	Grade
9	Insert radii [mm]
10	Geometry description
11	Application area of insert

1 GG.(RL) INT

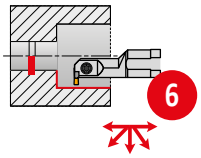
P M K N S H 2

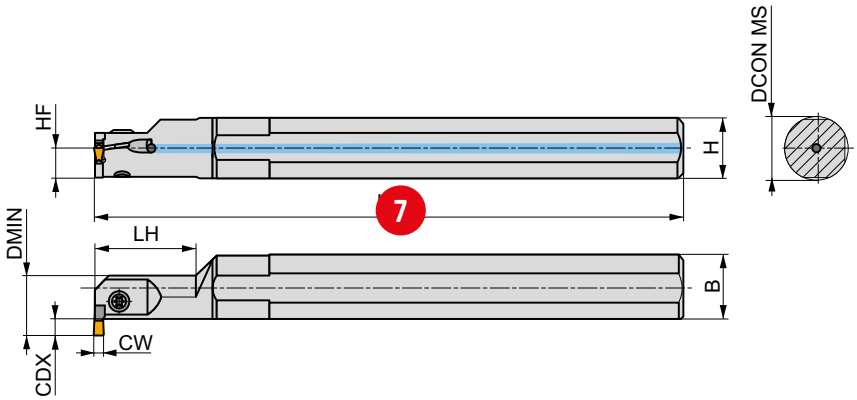
PRAMET 3 G

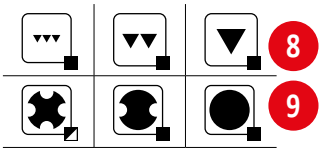

4

Internal Grooving Boring Bar for LCM. Inserts

Internal Right/Left hand grooving boring bar for grooving wi 5 0313 and 0413 inserts. Minimum internal grooving diameter Ø16 mm. Suited for internal grooving and multi-directional turning. Available with shank size Ø16 up to Ø32 mm. Body treated for longer tool life.


6




8 9

10

	Product	DCON MS [mm]	HF [mm]	H [mm]	B [mm]	LF [mm]	LH [mm]	CW [mm]	CDX [mm]	DMIN [mm]		kg		
R	A16Q-GGER 0313	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.26	GI143	GL06
	A16Q-GGER 0313-04	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.26	GI190	GL06
	A20R-GGFR 0313	20	9	18	19	200	30	3.00	4.5	20	✓	0.36	GI143	GL06
	A20R-GGFR 0313-04	20	9	18	19	200	30	3.00	4.5	20	✓	0.39	GI190	GL06
	A25S-GGHR 0313	25	11.5	23	24	250	40	3.00	6.5	25	✓	0.78	GI143	GL06
11	A25S-GG 12 13	25	11.5	23	24	250	40	4.00	6.5	25	14	15	16	17
	A32T-GGHR 0413	32	15	30	31	300	50	4.00	9.5	32	✓	1.59	GI170	GL06
L	A16Q-GGEL 0313	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.29	GI143	GL06
	A16Q-GGEL 0313-04	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.28	GI190	GL06
	A20R-GGFL 0313	20	9	18	19	200	30	3.00	4.5	20	✓	0.38	GI143	GL06
	A20R-GGFL 0313-04	20	9	18	19	200	30	3.00	4.5	20	✓	0.38	GI190	GL06
	A25S-GGHL 0313	25	11.5	23	24	250	40	3.00	6.5	25	✓	0.81	GI143	GL06
	A25S-GGFL 0413	25	11.5	23	24	250	40	4.00	6.5	25	✓	0.82	GI170	GL06
	A32T-GGHL 0413	32	15	30	31	300	50	4.00	9.5	32	✓	1.59	GI170	GL06

	18
GI143	LCM. 0313..
GI170	LCM. 0413..
GI190	LCM. 0313…..-04

		Nm	19		
GL06	SR 85011-T15P	5.0	M 5	9	FLAG T15P

Typical page with turning holders displayed – specific page details will differ.

PARTING – OFF & GROOVING HOLDERS – PAGE OVERVIEW

Pos.	Description
1	Designation of parting-off & grooving holder
2	Material group recommendations
3	Clamping system of insert
4	Illustrative picture [1]
5	Tool description
6	Workpiece profile
7	Schematic drawing of tool
8	Achievable quality of surface
9	Character of cut/working conditions
10	Product applications

Pos.	Description
11	Tool design
12	Code of holder
13	Dimensions [mm] and angles [2] [°] of holder
14	Internal coolant supply
15	Weight [kg]
16	Group of compatible inserts [3]
17	Group of spare parts [3], [4]
18	Compatible inserts
19	Spare parts

[1] Turning holder is primarily displayed in its right design (R)

[2] GAMO = orthogonal rake angle (see technical pages)
LAMS = inclination angle of main cutting edge (see technical pages)

[3] Code of Group of compatible inserts, spare parts and special accessories is used only for purposes of this catalogue. It cannot be used for orders.

[4] Spare parts and special accessories icons are designed schematically for ease of understanding. They aren't included in list of icons. Screws are, in some cases, completed with info on torque value in Nm, length of screw and size of thread.

PARTING – OFF & GROOVING – ICONS OVERVIEW

General icons

■	Primary use
◪	Possible use

▼▼▼	Finishing – very good surface quality
▼▼	Medium machining – good surface quality
▼	Roughing – unlimited surface roughness

●	Suitable for stable working conditions
	Suitable for unstable working conditions
	Suitable for very unstable working conditions

Turning operations

	Copy turning (multi directional machining)
	Deep and wide axial groove (with following expansion)
	Deep axial groove
	Deep radial groove
	Face copy turning

	Internal grooving
	Internal grooving (with following expansion)
	Parting off
	Shallow and wide axial groove (with following expansion)
	Shallow axial groove

	Shallow radial groove
	Tube parting off
	Wide radial groove (with following expansion)

Features

1	First choice
	Large overhang

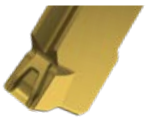
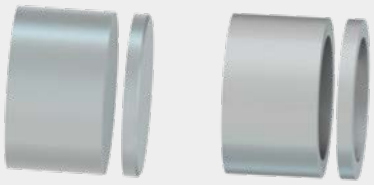
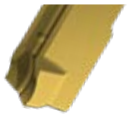
U	Universal wide range option
	Heavy working conditions

E	Rounded edge
S	Rounded edge with facet

Other

Nm	Clamping torque of screw [Nm]
	Internal supply of coolant

PARTING – OFF & GROOVING GEOMETRIES – NAVIGATOR

		Type of operation	insert family choice			
			First choice		Optional choice	
EXTERNAL		Grooving	GL. D		LCMF16, LCMF30	
			GM		F	
			406		432	
		Parting off	gL. D		LFMX	
			PM		M2	
			407		457	
		Face grooving	ICMF13		LCMF16, LCMF30	
			F		F	
			418		432	
		Copy profiling	gL. D		LCMF16, LCMF30	
			MM		MP	
			406		433	
		Circlips grooving	x61		TN ZZ EXT	
						
			469		476	
INTERNAL		Grooving	ICMF13			
			F			
			418			
		Copy profiling	ICMF13			
			MP			
			419			
		Circlips grooving	x61		TN ZZ INT	
						
			468		477	

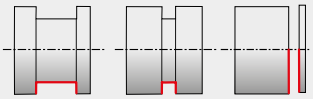
Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
T9325	P15 - P35 M10 - M30 K15 - K35 S10 - S20	■ ■ ◪ ◪				MT-CVD		FGM	+ +	From a technological perspective this is an extremely versatile grade with high resistance to mechanical damage in adverse cutting conditions and retains excellent wear resistance. The correct application of this material requires high cutting speeds.
T7325	P15 - P35 M10 - M25 S10 - S25	◪ ■ ■				MT-CVD		FGM	+ + +	One of the most universal turning grades. Especially designed for stainless steel machining. Optimal balance between wear resistance and performance reliability. Suitable for broad variety of application in turning operations.
6640	P20 - P40 M20 - M35 K25 - K40	■ ■ ■				MT-CVD		H	+ + +	One of the toughest turning materials which can be used especially in roughing operations, or where operational reliability under adverse cutting conditions is a priority. Another ideal choice for machines working with low to medium cutting speeds and medium to high feed rates.
T8330	P25 - P40 M20 - M35 K20 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ■ ◪ ◪ ◪				PVD		submicron H	+ + +	Versatile cutting material, this is useful for machining of all types of machined materials and is practically applicable in almost all types of turning operations. Its main benefits are its high operational reliability and very good frictional properties; it is therefore suitable for applications at medium and lower cutting speeds.
G8330	P25 - P40 M20 - M35 K20 - K40 S15 - S25	■ ■ ■ ◪				PVD		submicron H	+ + +	Universal cutting grade for grooving and parting-off applications. This grade is characterized by its exceptional reliability and versatility. Developed to fit machining conditions for most workpiece materials.

Substrat	
H	WC-Co based substrate
submicron H	WC-Co based substrate fine grained (< 1 µm)
FGM	Functionally graded substrate

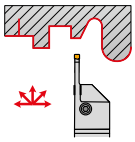
Coating	
MT-CVD	Medium-temperature chemical method of coating
PVD	Low-temperature physical method of coating

Benefits of cutting fluid	
+ + +	Use of coolant is essential
+ +	Highly recommended

PARTING-OFF & GROOVING – EXTERNAL

GLSF(RL) EXT

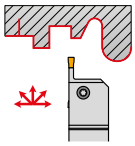


GL.D
GL2 GL3 GL4 GL5 GL6

■
20×20 25×25

410 | 406 – 408

GLSF(RL) EXT-G

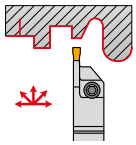


GL.D
GL2 GL3 GL4 GL5 GL6

■
20×20 25×25

412 | 406 – 408

GLSF(RL) EXT-S

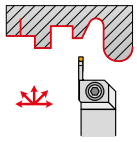


GL.D
GL2 GL3 GL4

■
12×12 16×16

413 | 406 – 408

GFK(RL) EXT

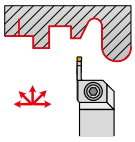


LCMF
0220

■
16×16 25×25

455 | 418 – 454

GFI(RL) EXT

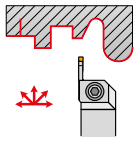


LCMF, LCMR
0316 0416 0516 0616 0830

■
16×16 32×25

437 | 418 – 454

GFM(RL) EXT

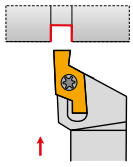


LCMF, LCMR
0316 0416 0516 0616 0830

■
20×20 32×25

439 | 418 – 454

P61 (RL) EXT

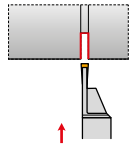


X61

■
16×16 25×25

470 | 468 – 469

XLCF(RL)

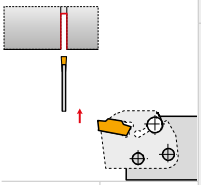


LFUX
03 04 05 06

■
16×12 32×25

465 | 464

XLCCN 25 BS + MS-EN

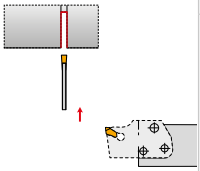


LCMF, LCMR
0316 0416 0516 0616

■
25×25 32×25

442 | 418 – 454

XLCF(NRL) BS + MS-EN

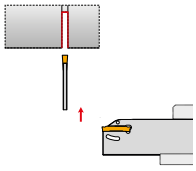


LFMX
1.50 1.60 2.00 2.20 3.10 4.10 5.10 6.35

■
12×12 32×25

461, 463 | 456 – 458

GLS B + DU, D

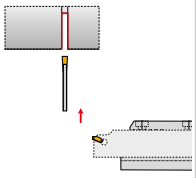


GL.D
GL2 GL3 GL4 GL5 GL6

■
20×20 32×29

414, 415 | 406 – 409

XLCCN B + DU, D

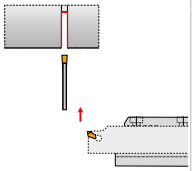


LCMF, LCMR
0316 0416 0516 0616

■
20×20 32×29

440, 441 | 418 – 454

XLCFN B + DU, D

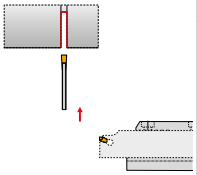


LFMX
1.50 1.60 2.00 2.20 3.10 4.10 5.10 6.35

■
20×20 40×36

459, 460 | 456 – 458

XLCFN B LFUX + DU, D

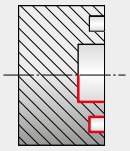


LFUX
03 04 05 06

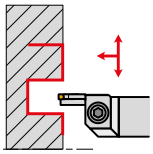
■
20×20 40×40

466, 467 | 464

FACE GROOVING



GFIL-L AXIAL



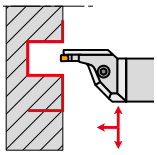
LCMF, LCMR
0313 0316

17-30
140-230

422, 444

418 – 454

GFIL-R AXIAL



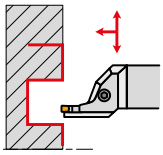
LCMF, LCMR
0313 0316 0413 0416

17-30
140-230

423, 445

418 – 454

GFIR-L AXIAL



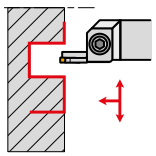
LCMF, LCMR
0313 0316 0413 0416

17-30
140-230

424, 446

418 – 454

GFIR-R AXIAL



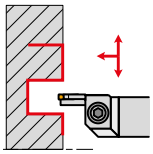
LCMF, LCMR
0313 0316

17-30
140-230

425, 447

418 – 454

GFML-L AXIAL



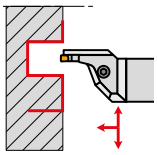
LCMF, LCMR
0413 0416

17-30
140-230

426, 448

418 – 454

GFML-R AXIAL



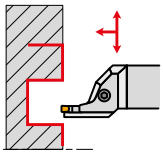
LCMF, LCMR
0413 0416

17-30
140-230

427, 449

418 – 454

GFMR-L AXIAL



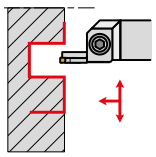
LCMF, LCMR
0413 0416

17-30
140-230

428, 450

418 – 454

GFMR-R AXIAL



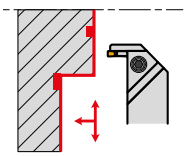
LCMF, LCMR
0413 0416

17-30
140-230

429, 451

418 – 454

GGI(RL)-90 AXIAL



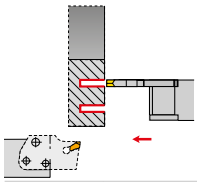
LCMF, LCMR
0313 0316

17-30
110-170

430, 452

418 – 454

XLXFL BS AXIAL + MS-EN



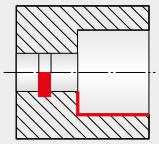
LFMX
3.10

60-85
150-280

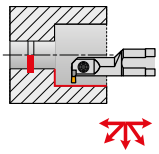
462, 463

456 – 458

GROOVING – INTERNAL



GG.(RL) INT



ØDmin	16 – 32

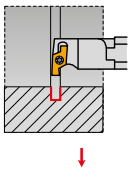
LCMF, LCMR

0313
0413

421

418 – 454

P61 (RL) INT



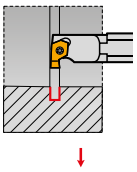
ØDmin	16 – 40

X61

471

468

P61S(RL)-1 INT



ØDmin	12.5

X61-1

474

472

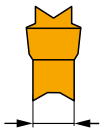
1	2		3	4	5	6	7		8
GL	3	–	D	300	G	02	L06	–	PM

1 Tool group

GL

2 Pocket size

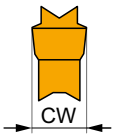
1, 2, 3, 4, 5, 6



3 Number of edges

S	One edge
D	Two edges

4 Cutting width – CW

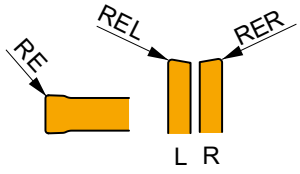


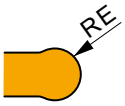
	CW
200	2.00
250	2.50
300	3.00
400	4.00
500	5.00
600	6.00

5 Edge design

G	Ground
M	Direct pressed

6 Nose radius



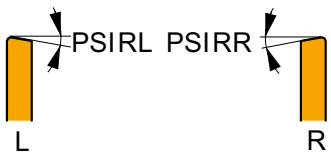


	RE, RER, REL [mm]
02	0.2
03	0.3
04	0.4
08	0.8

ROUND GEOMETRY

	RE [mm]
M0	RE = CW/2

7 Primary cutting edge angle



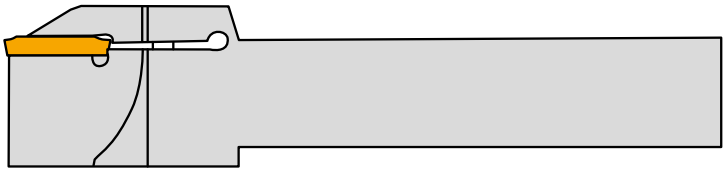
	[°]
06	6
12	12

8 Chipbreaker designation

PM
PR
GM
MM

PARTING – OFF & GROOVING HOLDERS (EXTERNAL TURNING) – GL – CODE DESIGNATION

1	2		3	4	5	6	7		8		9	10	11
GL	3	–	S	2525	M	F	L	–	20	–	R	120	090

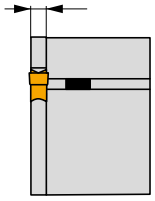


1 Tool group

GL

2 Pocket size

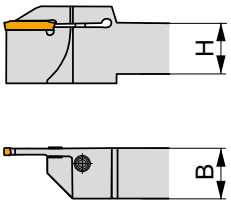
1, 2, 3, 4, 5, 6



3 Shank type

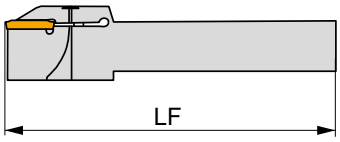
A	steel shank with internal coolant
S	steel shank without internal coolant

4 Shank dimensions



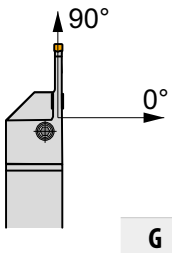
	H/B [mm]/ [mm]
1212 –	12/12
1616 –	16/16
2020 –	20/20
2525 –	25/25

5 Holder total length – LF



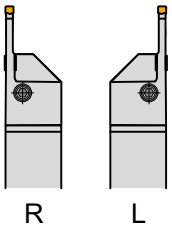
	LF [mm]
H	100
K	125
M	150
P	170

6 Tool style – cutting edge angle

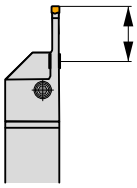


	[°]
G	0
F	90

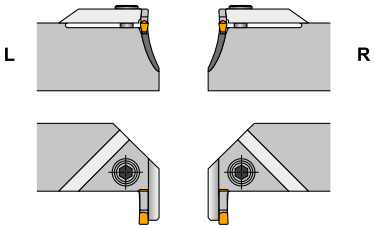
7 Version (right/left)



8 Cutting depth maximum – CDX

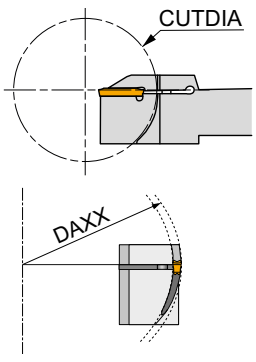


9 Blade curvature direction

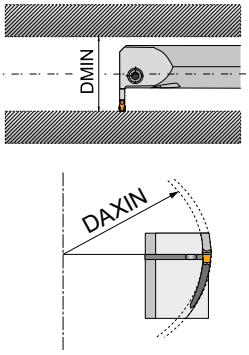


Additional information for axial turning.

10 Maximum diameter



11 Minimum diameter



PARTING – OFF & GROOVING BLADES (EXTERNAL TURNING) – GL – CODE DESIGNATION

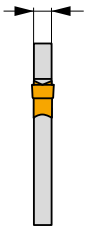
1	2		3	4	5	6
GL	3	–	S	32	M	B

1 – Tool group

GL

2 – Pocket size

1, 2, 3, 4, 5, 6



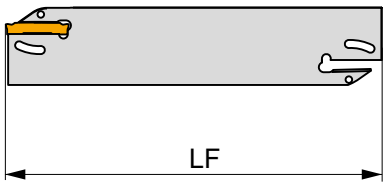
3 – Shank type

A	Steel shank with internal coolant
S	Steel shank without Internal coolant

4 – Shank dimensions

	H [mm]
26	26
32	32

5 – Blade total length – LF

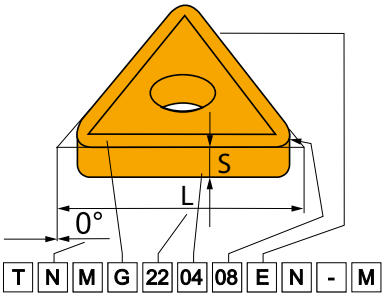


	LF [mm]	LF [″]
K	125	5.000″
M	150	6.000″

6 – Tool style

B – blade

ISO CODE DESIGNATION – INSERTS



	1	2	3	4
ISO	T	N	U	N
	T	N	M	G
ANSI	T	N	U	
	T	N	M	G

1 Insert shape

H	O	P	R
S	T	C 80°	D 55°
E 75°	M 86°	V 35°	W 80°
L	A 85°	B 82°	K 55°

2 Insert clearance angle

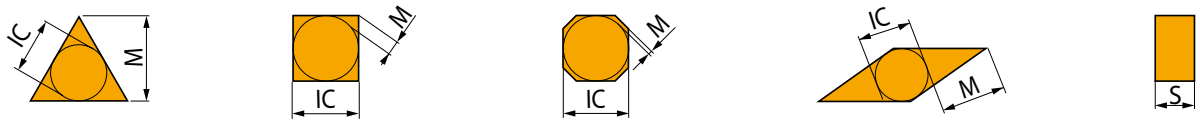
A 3°		B 5°	
C 7°		D 15°	
E 20°		F 25°	
G 30°		N 0°	
P 11°		O Special	

4 Insert type

N	
R	
F	
A	
M	
G	
W	40° – 60°
T	
Q	
U	
B	70° – 90°
H	
C	
J	
X	Special

3 Tolerances

	[mm]			[″]		
	M (±)	S (±)	IC (±)	M (±)	S (±)	IC (±)
A	0.005	0.025	0.025	.0002″	.001″	.0010″
F	0.005	0.025	0.013	.0002″	.001″	.0005″
C	0.013	0.025	0.025	.0005″	.001″	.0010″
H	0.013	0.025	0.013	.0005″	.001″	.0005″
E	0.025	0.025	0.025	.0010″	.001″	.0010″
G	0.025	0.130	0.025	.0010″	.005″	.0010″
J	0.005	0.025	0.05 – 0.13	.0002″	.001″	.002 – 0.005″
K	0.013	0.025	0.05 – 0.13	.0005″	.001″	.002 – 0.005″
L	0.025	0.025	0.05 – 0.13	.0010″	.001″	.002 – 0.005″
M	0.08 – 0.18	0.130	0.05 – 0.13	.003 – 0.007″	.005″	.002 – 0.005″
N	0.08 – 0.18	0.025	0.05 – 0.13	.003 – 0.007″	.001″	.002 – 0.005″
U	0.05 – 0.38	0.130	0.05 – 0.13	.005 – 0.015″	.005″	.003 – 0.010″

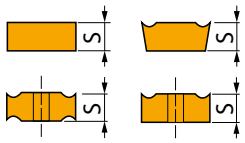


5	6	7	8	9		10
22	04	08			-	
22	04	08	E	N		M
5	6	7	8	9		10
4	3	2			-	
4	3	2	E	N		M

5 – Insert cutting edge length (insert size)

d=IC [mm]	[in]	H	O	P	S	T	C	D	E	M	V	W	R	K
3.97					03	06		04			06	02		
	5/32"	1.2												
4.76					04	08	04	05	04	04	08	L3		
	3/16"	1.5												
5.56					05	09	05	06	05	05	09	03		
	7/32"	1.8												
6.35		03	02	04	08	11	06	07	08	08	11	04	06	
	1/4"	2												
7.94		04	03	05	07	13	08	09	06	07	13	05	07	
	5/16"	2.5												
9.525		05	04	07	09	16	09	11	09	09	16	06	09	16
	3/8"	3												
12.7		07	05	09	12	22	12	15	13	12	22	08	12	
	1/2"	4												
15.875		09	06	11	15	27	16	19	16	15	27	10	15	
	5/8"	5												
19.05		11	07	13	19	33	19	23	19	19	33	13	19	
	3/4"	6												
25.40		14	10	18	25	44	25	31	26	25	44	17	25	
	1"	8												
31.75		18	13	23	31	54	32	38	32	31	54	21	31	
	1 1/4"	10												

6 – Insert thickness



	S [mm]	S ["]
01	1.59	1/16"
T1	1.98	5/64"
02	2.38	3/32"
03	3.18	1/8"
T3	3.97	5.32"
04	4.76	3/16"
05	5.56	7/32"
06	6.35	1/4"
07	7.94	5/16"
09	9.52	3/8"

7 – Insert nose radius

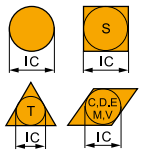
	RE [mm]	RE ["]
00	0	0"
02	0.2	1/128"
04	0.4	1/64"
08	0.8	1/32"
12	1.2	3/64"
16	1.6	1/16"
24	2.4	3/32"
32	3.2	1/8"

Round inserts

d=I.C.	
["]	00
[mm]	M0

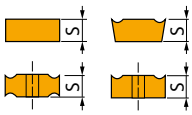
ANSI

5 – Inscribed circle



Symbol	d = I.C. [mm]	d = I.C. ["]
1	3.175	1/8"
1.2	3.969	5/32"
1.5	4.763	3/16"
1.8	5.556	7/32"
2	6.350	1/4"
2.5	7.938	5/16"
3	9.525	3/8"
4	12.700	1/2"
5	15.875	5/8"
6	19.050	3/4"
7	22.225	7/8"
8	25.400	1"
10	31.750	5/4"
12	38.100	6/4"

6 – Insert thickness



Symbol	S [mm]	S ["]
1	1.588	1/16"
1.2	1.984	5/64"
1.5	2.381	3/32"
2	3.175	1/8"
2.5	3.969	5/32"
3	4.763	3/16"
3.5	5.556	7/32"
4	6.350	1/4"
5	7.938	5/16"
6	9.525	3/8"
7	11.113	7/16"
8	12.700	1/2"
9	14.288	9/16"
10	15.875	5/8"

7 – Insert nose radius

Symbol	RE [mm]	RE ["]
0	0	0"
0.2	0.099	1/256"
0.5	0.198	1/128"
1	0.397	1/64"
2	0.794	1/32"
3	1.191	3/64"
4	1.588	1/16"
5	1.984	5/64"
6	2.381	3/32"
7	2.778	7/64"
8	3.175	1/8"
10	3.969	5/32"
12	4.763	3/16"
14	5.556	7/32"
16	6.350	1/4"

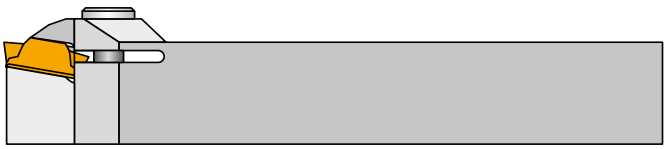
8 – Insert cutting edge design

F Sharp edges	E Rounded edges
T Edges with facet	S Rounded edges with facet
K Edges with double facet	P Rounded edges with double facet

9 – Feed direction

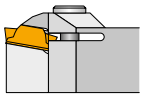
10 – Chip breaker designation

	1	2	3	4	5	6	7	8	9	10	11
ISO	G	F	I	L	25	25	M	0316	R	030	017
ANSI	1	2	3	4	5 & 6		7	8	9	10	11
	G	F	I	L	16		D	0316	R	1.18	.670

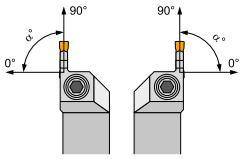


1 Clamping designation

G



2 Holder style – cutting edge angle

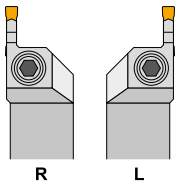


α°	
G = 0°	K = 75°
R = 15°	F = 90°
T = 30°	B = 105°
S = 45°	E = 120°
W = 60°	D = 135°

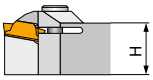
3 Cutting depth maximum – CDX

G = 2.0 × CW	N = 5.5 × CW
H = 2.5 × CW	O = 6.0 × CW
I = 3.0 × CW	P = 6.5 × CW
J = 3.5 × CW	Q = 7.0 × CW
K = 4.0 × CW	R = 7.5 × CW
L = 4.5 × CW	S = 8.0 × CW
M = 5.0 × CW	T = 8.5 × CW

4 Version (right/left) R/L

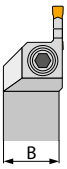


5 Shank height [mm]



12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

6 Shank width [mm]



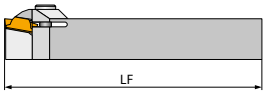
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

5 & 6

	B [″]	H [″]
05	5/16″	5/16″
06	3/8″	3/8″
08	1/2″	1/2″
10	5/8″	5/8″
12	3/4″	3/4″
16	1″	1″
85	1″	1 1/4″
86	1″	1 1/2″
20	1 1/4″	1 1/4″
24	1 1/2″	1 1/2″
32	2″	2″

For square shanks, the number is the width or height in terms of 16ths. For rectangular shanks the first digit is the width in terms of 8ths and the second digit is the height in terms of 4ths.

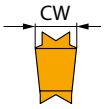
7 Holder total length



	LF [mm]
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200

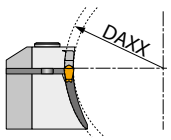
	LF [″]
A	4.000″
B	4.500″
C	5.000″
D	6.000″
E	7.000″
F	8.000″

8 Insert width



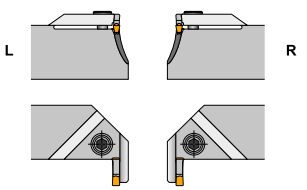
	CW [mm]	CW [″]
02	2.0	.079″
03, 0313, 0316	3.0	.118″
04, 0413, 0416	4.0	.157″
05, 0516	5.0	.197″
06, 0616	6.0	.236″
08, 0830	8.0	.315″

10 Maximum diameter – face grooving



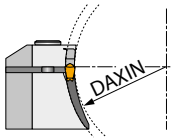
Additional information for axial turning

9 Blade curvature direction



Additional information for axial turning

11 Minimum diameter – face grooving



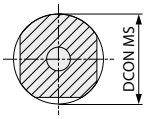
Additional information for axial turning

	1	2	3		4	5	6	7	8
ISO	A	25	S	–	G	G	H	L	0313
ANSI	A	16	S	–	G	G	H	L	0313

1 Shank

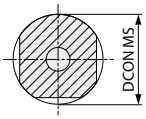
S	Steel shank
A	Steel shank with coolant hole

2 Diameter of shank



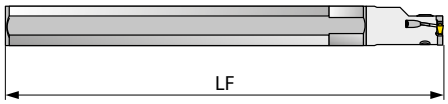
	DCON MS [mm]
12	12
16	16
20	20
25	25
32	32
40	40

2 Diameter of shank



	DCON MS [″]
08	.500″
10	.625″
12	.750″
16	1.000″
20	1.250″
24	1.500″

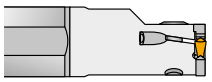
3 Holder total length



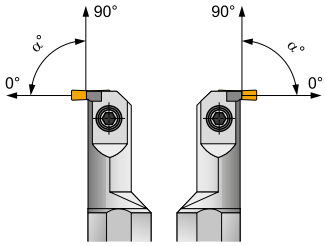
	LF [mm]	LF [″]		LF [mm]	LF [″]
M	150	6.000″	S	250	10.000″
P	170	6.250″	T	300	12.000″
Q	180	7.250″	U	350	14.000″
R	200	8.000″	V	400	15.750″

4 Clamping designation

G

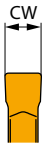


5 Tool style – cutting edge angle



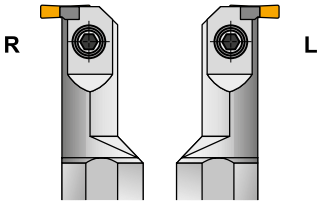
α°	
G = 0°	K = 75°
R = 15°	F = 90°
T = 30°	B = 105°
S = 45°	E = 120°
W = 60°	D = 135°

6 Cutting depth maximum – CDX

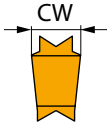


E = 1.0 × CW	J = 3.5 × CW
F = 1.5 × CW	K = 4.0 × CW
G = 2.0 × CW	L = 4.5 × CW
H = 2.5 × CW	M = 5.0 × CW
I = 3.0 × CW	N = 5.5 × CW
X = Special	

7 Version (right/left) R/L



8 Insert width

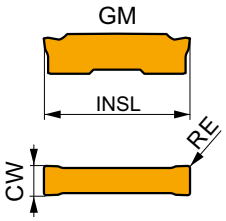


	CW [mm]
0313	3.0
0413	4.0

GL. D - GM

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
200	2.00	-0.05	0.05	25.0
300	3.00	-0.05	0.05	25.0
400	4.00	-0.05	0.05	25.0
500	5.00	-0.05	0.05	25.0
600	6.00	-0.05	0.05	25.0



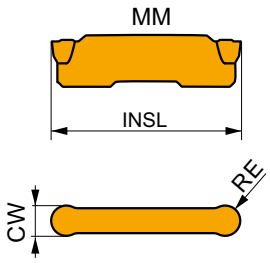
Workpiece material suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap).

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U E																	
GM geometry for grooving and longitudinal turning, and continuous to interrupted cuts.																				
GL2-D200M02-GM	**G8330**	0.2	■ 190	0.10	0.8	■ 110	0.09	0.8	■ 180	0.10	0.8	–	–	–	◪ 45	0.08	0.6	–	–	–
	T7325	0.2	◪ 220	0.10	0.8	■ 170	0.09	0.8	–	–	–	–	–	–	◪ 70	0.08	0.6	–	–	–
GL3-D300M02-GM	**G8330**	0.2	■ 150	0.20	1.0	■ 90	0.18	1.0	■ 140	0.20	1.0	–	–	–	◪ 35	0.14	0.8	–	–	–
	T7325	0.2	◪ 175	0.20	1.0	■ 135	0.18	1.0	–	–	–	–	–	–	◪ 55	0.14	0.8	–	–	–
GL3-D300M04-GM	**G8330**	0.4	■ 160	0.20	1.0	■ 95	0.18	1.0	■ 150	0.20	1.0	–	–	–	◪ 40	0.14	0.8	–	–	–
	T7325	0.4	◪ 185	0.20	1.0	■ 140	0.18	1.0	–	–	–	–	–	–	◪ 60	0.14	0.8	–	–	–
GL4-D400M04-GM	**G8330**	0.4	■ 150	0.25	1.2	■ 90	0.23	1.2	■ 140	0.25	1.2	–	–	–	◪ 35	0.18	1.0	–	–	–
	T7325	0.4	◪ 170	0.25	1.2	■ 130	0.23	1.2	–	–	–	–	–	–	◪ 55	0.18	1.0	–	–	–
GL4-D400M08-GM	**G8330**	0.8	■ 180	0.25	1.2	■ 105	0.23	1.2	■ 170	0.25	1.2	–	–	–	◪ 45	0.18	1.0	–	–	–
	T7325	0.8	◪ 200	0.25	1.2	■ 155	0.23	1.2	–	–	–	–	–	–	◪ 65	0.18	1.0	–	–	–
GL5-D500M08-GM	**G8330**	0.8	■ 170	0.30	1.2	■ 100	0.27	1.2	■ 160	0.30	1.2	–	–	–	◪ 40	0.21	1.0	–	–	–
	T7325	0.8	◪ 190	0.30	1.2	■ 145	0.27	1.2	–	–	–	–	–	–	◪ 60	0.21	1.0	–	–	–
GL6-D600M08-GM	**G8330**	0.8	■ 170	0.30	1.2	■ 100	0.27	1.2	■ 160	0.30	1.2	–	–	–	◪ 40	0.21	1.0	–	–	–
	T7325	0.8	◪ 190	0.30	1.2	■ 145	0.27	1.2	–	–	–	–	–	–	◪ 60	0.21	1.0	–	–	–

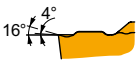
GL. D - MM

PRAMET

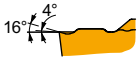
	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
200	2.00	-0.05	0.05	25.0
300	3.00	-0.05	0.05	25.0
400	4.00	-0.05	0.05	25.0
500	5.00	-0.05	0.05	26.0
600	6.00	-0.05	0.05	26.0



Workpiece material suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap).

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U S																	
MM geometry, with full radius shape for copy profiling and longitudinal turning, and continuous to interrupted cuts.																				
GL2-D200MM0-MM	**G8330**	1.0	■ 250	0.10	1.0	■ 150	0.09	1.0	■ 235	0.10	1.0	–	–	–	◪ 60	0.08	0.8	–	–	–
	T7325	1.0	◪ 285	0.10	1.0	■ 220	0.09	1.0	–	–	–	–	–	–	◪ 90	0.08	0.8	–	–	–

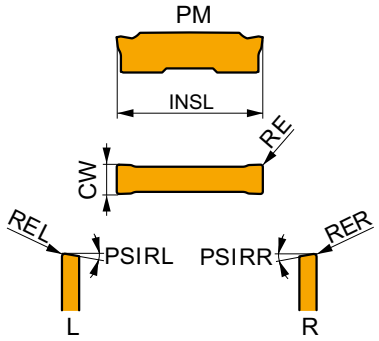
Workpiece material suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap).

Product		RE	P						M						K						N						S						H					
			vc		f		ap		vc		f		ap		vc		f		ap		vc		f		ap		vc		f		ap		vc		f		ap	
		[mm]	[m/min]		[mm/rev]		[mm]		[m/min]		[mm/rev]		[mm]		[m/min]		[mm/rev]		[mm]		[m/min]		[mm/rev]		[mm]		[m/min]		[mm/rev]		[mm]		[m/min]		[mm/rev]		[mm]	
																																						
MM geometry, with full radius shape for copy profiling and longitudinal turning, and continuous to interrupted cuts.																																						
GL3-D300MM0-MM	**G8330**	1.5	■	210	0.20	1.2	■	125	0.18	1.2	■	195	0.20	1.2	–	–	–	◪	50	0.14	1.0	–	–	–
	T7325	1.5	◪	240	0.20	1.2	■	185	0.18	1.2		–	–	–	–	–	–	◪	75	0.14	1.0	–	–	–
GL4-D400MM0-MM	**G8330**	2.0	■	220	0.20	1.2	■	130	0.18	1.2	■	205	0.20	1.2	–	–	–	◪	55	0.14	1.0	–	–	–
	T7325	2.0	◪	250	0.20	1.2	■	195	0.18	1.2		–	–	–	–	–	–	◪	80	0.14	1.0	–	–	–
GL5-D500MM0-MM	**G8330**	2.5	■	205	0.25	1.2	■	120	0.23	1.2	■	190	0.25	1.2	–	–	–	◪	50	0.18	1.0	–	–	–
	T7325	2.5	◪	235	0.25	1.2	■	180	0.23	1.2		–	–	–	–	–	–	◪	75	0.18	1.0	–	–	–
GL6-D600MM0-MM	**G8330**	3.0	■	195	0.30	1.2	■	115	0.27	1.2	■	185	0.30	1.2	–	–	–	◪	45	0.21	1.0	–	–	–
	T7325	3.0	◪	220	0.30	1.2	■	170	0.27	1.2		–	–	–	–	–	–	◪	70	0.21	1.0	–	–	–

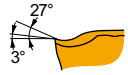
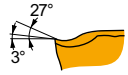
GL. D - PM

PRAMET

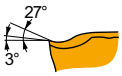
	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
200	2.00	-0.05	0.05	25.0
250	2.55	-0.05	0.05	25.0
300	3.00	-0.05	0.05	25.0
400	4.00	-0.05	0.05	25.0
500	5.00	-0.05	0.05	25.0
600	6.00	-0.05	0.05	25.0



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H			PSIRR	PSIRL
			vc		f	vc		f	vc		f	vc		f	vc		f	vc		f		
		[mm]	[m/min]		[mm/rev]	[m/min]		[mm/rev]	[m/min]		[mm/rev]	[m/min]		[mm/rev]	[m/min]		[mm/rev]	[m/min]		[mm/rev]	[°]	[°]
																						
PM geometry, first choice for parting-off and grooving, and continuous to slightly interrupted cuts.																						
GL2-D200M02-PM	**G8330**	0.2	■	130	0.08	■	75	0.07	◪	120	0.08	–	–	◪	30	0.06	–	–	–	–	–
	T7325	0.2	◪	150	0.08	■	115	0.07		–	–	–	–	◪	45	0.06	–	–	–	–	–
GL3-D250G02-PM	**G8330**	0.2	■	130	0.10	■	75	0.09	◪	120	0.10	–	–	◪	30	0.07	–	–	–	–	–
GL3-D300M02-PM	**G8330**	0.2	■	130	0.10	■	75	0.09	◪	120	0.10	–	–	◪	30	0.07	–	–	–	–	–
	T7325	0.2	◪	150	0.10	■	115	0.09		–	–	–	–	◪	45	0.07	–	–	–	–	–
GL4-D400M02-PM	**G8330**	0.2	■	130	0.12	■	75	0.11	◪	120	0.12	–	–	◪	30	0.10	–	–	–	–	–
	T7325	0.2	◪	150	0.12	■	115	0.11		–	–	–	–	◪	45	0.10	–	–	–	–	–
GL5-D500M03-PM	**G8330**	0.3	■	130	0.15	■	75	0.14	◪	120	0.15	–	–	◪	30	0.12	–	–	–	–	–
GL6-D600M03-PM	**G8330**	0.3	■	130	0.15	■	75	0.14	◪	120	0.15	–	–	◪	30	0.12	–	–	–	–	–
																						
R-PM right-handed geometry, first choice for parting-off, and continuous to slightly interrupted cuts.																						
GL2-D200G02R06-PM	**G8330**	0.2	■	130	0.08	■	75	0.07	◪	120	0.08	–	–	◪	30	0.06	–	–	–	6	–
	T7325	0.2	◪	150	0.08	■	115	0.07		–	–	–	–	◪	45	0.06	–	–	–	6	–
GL2-D200G02R12-PM	**G8330**	0.2	■	130	0.08	■	75	0.07	◪	120	0.08	–	–	◪	30	0.06	–	–	–	12	–
GL3-D300G02R06-PM	**G8330**	0.2	■	130	0.10	■	75	0.09	◪	120	0.10	–	–	◪	30	0.07	–	–	–	6	–
	T7325	0.2	◪	150	0.10	■	115	0.09		–	–	–	–	◪	45	0.07	–	–	–	6	–
GL3-D300G02R12-PM	**G8330**	0.2	■	130	0.10	■	75	0.09	◪	120	0.10	–	–	◪	30	0.07	–	–	–	12	–
GL4-D400G02R06-PM	**G8330**	0.2	■	130	0.12	■	75	0.11	◪	120	0.12	–	–	◪	30	0.10	–	–	–	6	–
	T7325	0.2	◪	150	0.12	■	115	0.11		–	–	–	–	◪	45	0.10	–	–	–	6	–
GL4-D400G02R12-PM	**G8330**	0.2	■	130	0.12	■	75	0.11	◪	120	0.12	–	–	◪	30	0.10	–	–	–	12	–

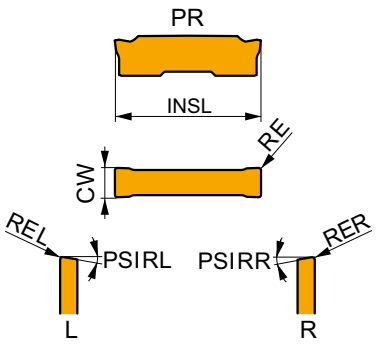
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P				M				K				N				S				H				PSIRR	PSIRL
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[°]	[°]
																												
			L-PM left-handed geometry, first choice for parting-off and continuous to slightly interrupted cuts.																									
GL2-D200G02L06-PM	**G8330**	0.2	130		0.08		75		0.07		120		0.08		–		–		30		0.06		–		–		–	6
	T7325	0.2	150		0.08		115		0.07		–		–		–		–		45		0.06		–		–		–	6
GL2-D200G02L12-PM	**G8330**	0.2	130		0.08		75		0.07		120		0.08		–		–		30		0.06		–		–		–	12
GL3-D300G02L06-PM	**G8330**	0.2	130		0.10		75		0.09		120		0.10		–		–		30		0.07		–		–		–	6
	T7325	0.2	150		0.10		115		0.09		–		–		–		–		45		0.07		–		–		–	6
GL3-D300G02L12-PM	**G8330**	0.2	130		0.10		75		0.09		120		0.10		–		–		30		0.07		–		–		–	12
GL4-D400G02L06-PM	**G8330**	0.2	130		0.12		75		0.11		120		0.12		–		–		30		0.10		–		–		–	6
	T7325	0.2	150		0.12		115		0.11		–		–		–		–		45		0.10		–		–		–	6
GL4-D400G02L12-PM	**G8330**	0.2	130		0.12		75		0.11		120		0.12		–		–		30		0.10		–		–		–	12

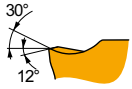
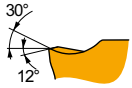
GL. D - PR

PRAMET

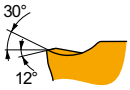
	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
200	2.00	-0.05	0.05	25.0
300	3.00	-0.05	0.05	25.0
400	4.00	-0.05	0.05	25.0
500	5.00	-0.05	0.05	25.0
600	6.00	-0.05	0.05	25.0



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P				M				K				N				S				H				PSIRR	PSIRL
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[°]	[°]
																												
			PR geometry, first choice for parting-off and grooving, and continuous to interrupted cuts.																									
GL2-D200M02-PR	**G8330**	0.2	130		0.10		75		0.09		120		0.10		–		–		–		–		–		–		–	–
	T7325	0.2	150		0.10		115		0.09		–		–		–		–		–		–		–		–		–	–
GL3-D300M02-PR	**G8330**	0.2	130		0.12		75		0.11		120		0.12		–		–		–		–		–		–		–	–
	T7325	0.2	150		0.12		115		0.11		–		–		–		–		–		–		–		–		–	–
GL4-D400M02-PR	**G8330**	0.2	130		0.15		75		0.14		120		0.15		–		–		–		–		–		–		–	–
	T7325	0.2	150		0.15		115		0.14		–		–		–		–		–		–		–		–		–	–
GL5-D500M04-PR	**G8330**	0.4	130		0.18		75		0.16		120		0.18		–		–		–		–		–		–		–	–
GL6-D600M04-PR	**G8330**	0.4	130		0.18		75		0.16		120		0.18		–		–		–		–		–		–		–	–
																												
			R-PR right-handed geometry, first choice for parting-off, and continuous to interrupted cuts.																									
GL2-D200G02R06-PR	**G8330**	0.2	130		0.10		75		0.09		120		0.10		–		–		–		–		–		–		6	–
GL2-D200G02R12-PR	**G8330**	0.2	130		0.10		75		0.09		120		0.10		–		–		–		–		–		–		12	–
GL3-D300G02R06-PR	**G8330**	0.2	130		0.12		75		0.11		120		0.12		–		–		–		–		–		–		6	–
GL3-D300G02R12-PR	**G8330**	0.2	130		0.12		75		0.11		120		0.12		–		–		–		–		–		–		12	–
GL4-D400G02R06-PR	**G8330**	0.2	130		0.15		75		0.14		120		0.15		–		–		–		–		–		–		6	–
GL4-D400G02R12-PR	**G8330**	0.2	130		0.15		75		0.14		120		0.15		–		–		–		–		–		–		12	–

Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	[°]	[°]
			S													
			L-PR left-handed geometry, first choice for parting-off, and continuous to interrupted cuts.													
GL2-D200G02L06-PR	**G8330**	0.2	■ 130	0.10	◪ 75	0.09	■ 120	0.10	–	–	–	–	–	–	–	6
GL2-D200G02L12-PR	**G8330**	0.2	■ 130	0.10	◪ 75	0.09	■ 120	0.10	–	–	–	–	–	–	–	12
GL3-D300G02L06-PR	**G8330**	0.2	■ 130	0.12	◪ 75	0.11	■ 120	0.12	–	–	–	–	–	–	–	6
GL3-D300G02L12-PR	**G8330**	0.2	■ 130	0.12	◪ 75	0.11	■ 120	0.12	–	–	–	–	–	–	–	12
GL4-D400G02L06-PR	**G8330**	0.2	■ 130	0.15	◪ 75	0.14	■ 120	0.15	–	–	–	–	–	–	–	6
GL4-D400G02L12-PR	**G8330**	0.2	■ 130	0.15	◪ 75	0.14	■ 120	0.15	–	–	–	–	–	–	–	12

GLSF(RL) EXT

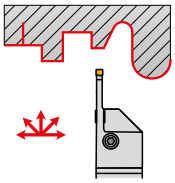
P M K N S H

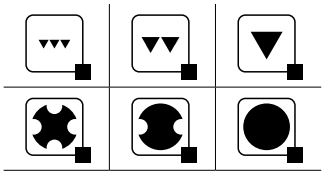
PRAMET

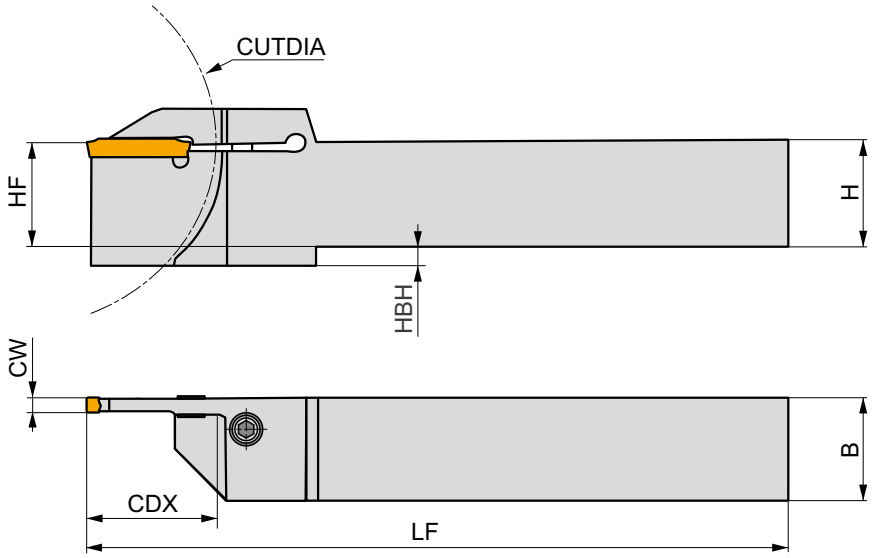
G

External V-Groove Top Clamp Grooving and Parting-Off tool for GL Inserts

External Right/Left hand radial tool holder for grooving with double-sided GL 2, 3, 4, 5, or 6 style inserts. Suited for radial grooving and parting-off applications, up to 32 mm maximum depth of cut. Available with shank size 20x20 or 25x25 mm. Reinforced body design for longer tool life and low vibrations.







	Product	HF [mm]	HBH [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	CUTDIA [mm]	kg		
R	GL2-S2020KFR-20-80	20	–	20	20	125	2.00	20	80	0.38	GI334	GL11
	GL2-S2020KFR-24-80	20	5	20	20	125	2.00	24	80	0.36	GI334	GL11
	GL2-S2525MFR-20-80	25	–	25	25	150	2.00	20	80	0.68	GI334	GL11
	GL2-S2525MFR-24-80	25	–	25	25	150	2.00	24	80	0.64	GI334	GL11
	GL3-S2020KFR-20-80	20	–	20	20	125	3.00	20	80	0.38	GI335	GL11
	GL3-S2020KFR-24-80	20	5	20	20	125	3.00	24	80	0.36	GI335	GL11
	GL3-S2525MFR-20-80	25	–	25	25	150	3.00	20	80	0.68	GI335	GL11
	GL3-S2525MFR-24-80	25	–	25	25	150	3.00	24	80	0.65	GI335	GL11
	GL3-S2525PFR-32-80	25	5	25	25	170	3.00	32	80	0.72	GI335	GL11
	GL4-S2020KFR-20-80	20	–	20	20	125	4.00	20	80	0.38	GI336	GL11
	GL4-S2020KFR-24-80	20	5	20	20	125	4.00	24	80	0.37	GI336	GL11
	GL4-S2525MFR-20-80	25	–	25	25	150	4.00	20	80	0.68	GI336	GL11
	GL4-S2525MFR-24-80	25	–	25	25	150	4.00	24	80	0.65	GI336	GL11
	GL4-S2525PFR-32-80	25	5	25	25	170	4.00	32	80	0.78	GI336	GL11
	GL5-S2020KFR-20-80	20	–	20	20	125	5.00	20	80	0.38	GI337	GL11
	GL5-S2525MFR-20-80	25	–	25	25	150	5.00	20	80	0.68	GI337	GL11
	GL5-S2525PFR-32-100	25	5	25	25	170	5.00	32	100	0.75	GI337	GL11
	GL6-S2020KFR-20-80	20	–	20	20	125	6.00	20	80	0.39	GI338	GL11
	GL6-S2525MFR-20-80	25	–	25	25	150	6.00	20	80	0.68	GI338	GL11
	GL6-S2525PFR-32-100	25	5	25	25	170	6.00	32	100	0.75	GI338	GL11
L	GL2-S2020KFL-20-80	20	–	20	20	125	2.00	20	80	0.38	GI334	GL11
	GL2-S2020KFL-24-80	20	5	20	20	125	2.00	24	80	0.36	GI334	GL11
	GL2-S2525MFL-20-80	25	–	25	25	150	2.00	20	80	0.70	GI334	GL11
	GL2-S2525MFL-24-80	25	–	25	25	150	2.00	24	80	0.64	GI334	GL11
	GL3-S2020KFL-20-80	20	–	20	20	125	3.00	20	80	0.38	GI335	GL11
	GL3-S2020KFL-24-80	20	5	20	20	125	3.00	24	80	0.36	GI335	GL11
	GL3-S2525MFL-20-80	25	–	25	25	150	3.00	20	80	0.68	GI335	GL11

	Product	HF [mm]	HBH [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	CUTDIA [mm]	kg		
L	**GL3-S2525MFL-24-80**	25	–	25	25	150	3.00	24	80	0.65	GI335	GL11
	GL3-S2525PFL-32-80	25	5	25	25	170	3.00	32	80	0.78	GI335	GL11
	GL4-S2020KFL-20-80	20	–	20	20	125	4.00	20	80	0.38	GI336	GL11
	GL4-S2020KFL-24-80	20	5	20	20	125	4.00	24	80	0.37	GI336	GL11
	GL4-S2525MFL-20-80	25	–	25	25	150	4.00	20	80	0.68	GI336	GL11
	GL4-S2525MFL-24-80	25	–	25	25	150	4.00	24	80	0.65	GI336	GL11
	GL4-S2525PFL-32-80	25	5	25	25	170	4.00	32	80	0.72	GI336	GL11
	GL5-S2020KFL-20-80	20	–	20	20	125	5.00	20	80	0.38	GI337	GL11
	GL5-S2525MFL-20-80	25	–	25	25	150	5.00	20	80	0.71	GI337	GL11
	GL5-S2525PFL-32-100	25	5	25	25	170	5.00	32	100	0.75	GI337	GL11
	GL6-S2020KFL-20-80	20	–	20	20	125	6.00	20	80	0.39	GI338	GL11
	GL6-S2525MFL-20-80	25	–	25	25	150	6.00	20	80	0.71	GI338	GL11
	GL6-S2525PFL-32-100	25	5	25	25	170	6.00	32	100	0.75	GI338	GL11

GI334	GL2..
GI335	GL3..
GI336	GL4..
GI337	GL5..
GI338	GL6..

		Nm			
GL11	US 5018-T20P	5.0	M 5	18.2	LK T20P

Cutting depths on machined diameter on page 416.

GLSF(RL) EXT-G

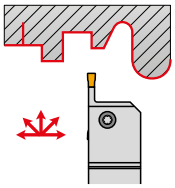
P M K N S H

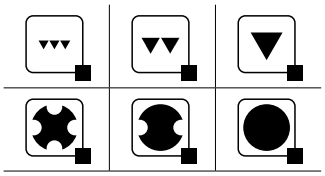
PRAMET

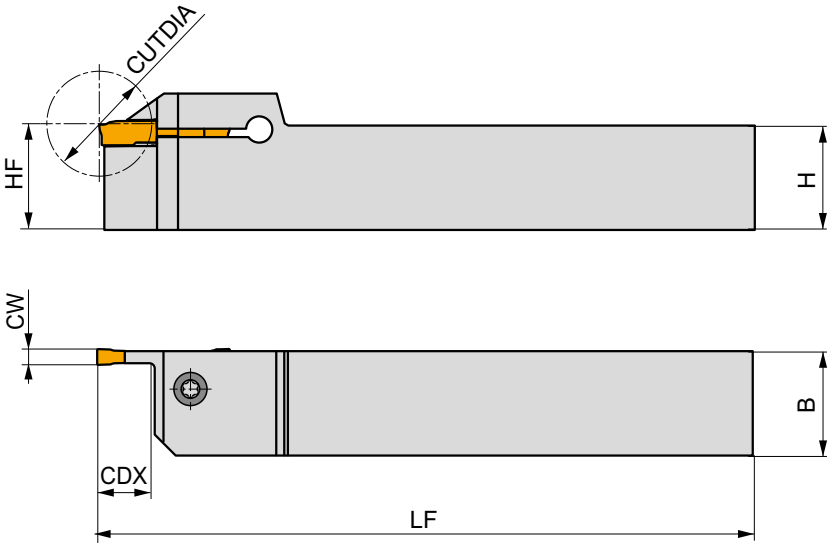
G

External V-Groove Top Clamp Grooving and Turning tool for GL Inserts

External Right/Left hand radial tool holder for grooving with double-sided GL 2, 3, 4, 5, or 6 style inserts. Suited for radial grooving, longitudinal turning and profiling applications, up to 12 mm maximum depth of cut. Available with shank size 20x20 or 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	CUTDIA [mm]	kg		
R	GL2-S2020KFR-10	20	20	20	125	2.00	10	20	0.38	GI334	GL11
	GL2-S2525MFR-10	25	25	25	150	2.00	10	20	0.69	GI334	GL11
	GL3-S2020KFR-10	20	20	20	125	3.00	10	20	0.36	GI335	GL11
	GL3-S2525MFR-10	25	25	25	150	3.00	10	20	0.69	GI335	GL11
	GL4-S2020KFR-12	20	20	20	125	4.00	12	24	0.37	GI336	GL11
	GL4-S2525MFR-12	25	25	25	150	4.00	12	24	0.69	GI336	GL11
	GL5-S2020KFR-12	20	20	20	125	5.00	12	24	0.36	GI337	GL11
	GL5-S2525MFR-12	25	25	25	150	5.00	12	24	0.70	GI337	GL11
	GL6-S2020KFR-12	20	20	20	125	6.00	12	24	0.36	GI338	GL11
	GL6-S2525MFR-12	25	25	25	150	6.00	12	24	0.68	GI338	GL11
L	GL2-S2020KFL-10	20	20	20	125	2.00	10	20	0.37	GI334	GL11
	GL2-S2525MFL-10	25	25	25	150	2.00	10	20	0.70	GI334	GL11
	GL3-S2020KFL-10	20	20	20	125	3.00	10	20	0.36	GI335	GL11
	GL3-S2525MFL-10	25	25	25	150	3.00	10	20	0.70	GI335	GL11
	GL4-S2020KFL-12	20	20	20	125	4.00	12	24	0.37	GI336	GL11
	GL4-S2525MFL-12	25	25	25	150	4.00	12	24	0.69	GI336	GL11
	GL5-S2020KFL-12	20	20	20	125	5.00	12	24	0.36	GI337	GL11
	GL5-S2525MFL-12	25	25	25	150	5.00	12	24	0.69	GI337	GL11
	GL6-S2020KFL-12	20	20	20	125	6.00	12	24	0.36	GI338	GL11
	GL6-S2525MFL-12	25	25	25	150	6.00	12	24	0.68	GI338	GL11

GI334	GL2..
GI335	GL3..
GI336	GL4..
GI337	GL5..
GI338	GL6..

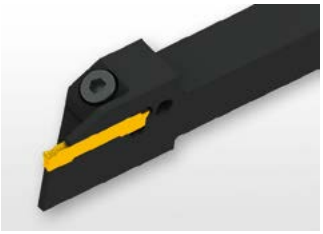
		Nm			
GL11	US 5018-T20P	5.0	M 5	18.2	LKT20P

GLSF(RL) EXT-S

P M K N S H

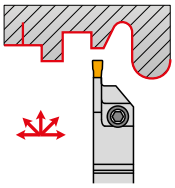
PRAMET

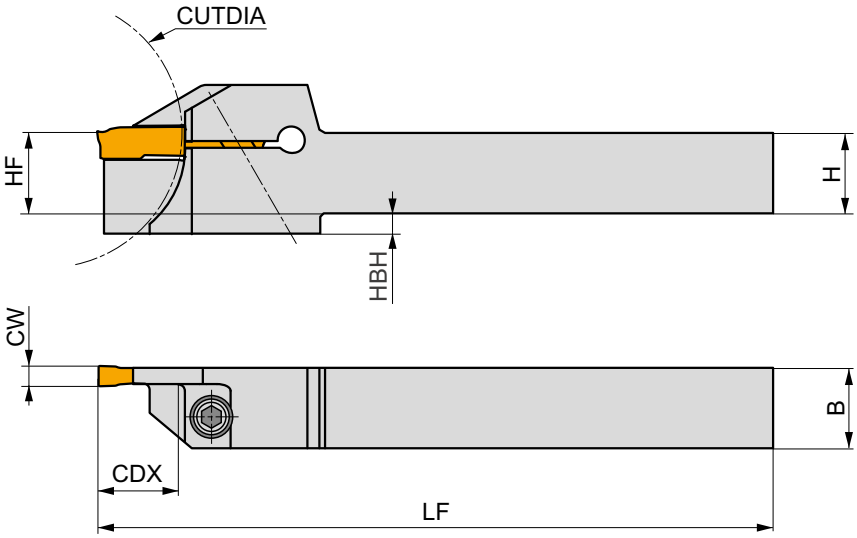
G

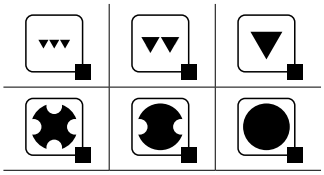


External Grooving and Parting-Off tool, GL Inserts for Sliding head machines

External Right/Left hand radial tool holder for sliding head machines GL 2, 3, 4 pocket widths. For radial grooving, profiling and parting-off applications up to 16 mm maximum depth of cut. Available with shank size 12x12 or 16x16 mm. Reinforced body design for longer tool life and low vibrations, easy access clamping.







	Product	HF [mm]	HBH [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	CUTDIA [mm]	kg		
R	GL2-S1212HFR-12-40	12	3	12	12	100	2.00	12	40	0.11	GI334	GL13
	GL2-S1616KFR-16-45	16	3	16	16	125	2.00	16	45	0.23	GI334	GL12
	GL3-S1212HFR-12-40	12	3	12	12	100	3.00	12	40	0.11	GI335	GL13
	GL3-S1616KFR-16-45	16	3	16	16	125	3.00	16	45	0.23	GI335	GL12
	GL4-S1616KFR-16-45	16	4	16	16	125	4.00	16	45	0.26	GI336	GL12
L	GL2-S1212HFL-12-40	12	3	12	12	100	2.00	12	40	0.11	GI334	GL13
	GL2-S1616KFL-16-45	16	3	16	16	125	2.00	16	45	0.23	GI334	GL12
	GL3-S1212HFL-12-40	12	3	12	12	100	3.00	12	40	0.11	GI335	GL13
	GL3-S1616KFL-16-45	16	3	16	16	125	3.00	16	45	0.23	GI335	GL12
	GL4-S1616KFL-16-45	16	4	16	16	125	4.00	16	45	0.24	GI336	GL12

GI334	GL2..
GI335	GL3..
GI336	GL4..

		Nm			
GL12	HS 0516	5.0	M 5	16	HXK 4
GL13	HS 0412	5.0	M 4	12	HXK 3

Cutting depths on machined diameter on page 416.

GLS B

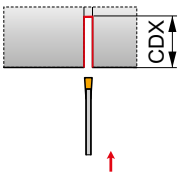
P M K N S H

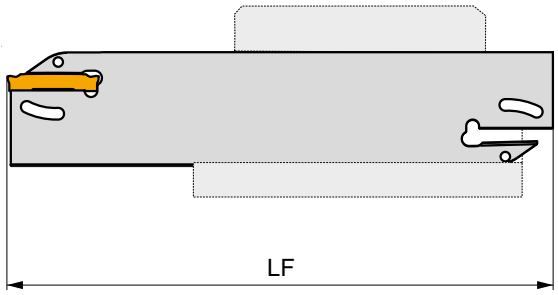
PRAMET

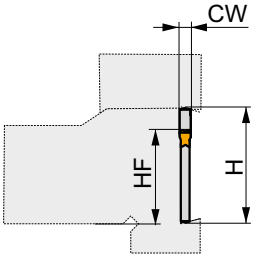
X

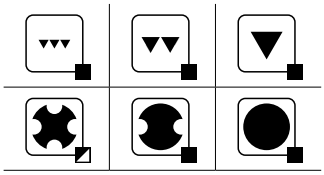
Double-Ended Parting-off Blade for GL Inserts

Blade for parting-off applications up to 60 mm maximum depth or Ø120 mm bar material. Suited for double-sided inserts GL family. Available in height of 26 and 32 mm. Can be fitted into the DU Pramet basic holders. Blade treated for longer tool life.









Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
GL2-S26KB	21.4	26	125	2.00	35	0.13	GI334	KV2
GL2-S32MB	25	32	150	2.00	50	0.15	GI334	KV2
GL3-S26KB	21.4	26	125	3.00	35	0.15	GI335	KV2
GL3-S32MB	25	32	150	3.00	50	0.16	GI335	KV2
GL4-S32MB	25	32	150	4.00	50	0.16	GI336	KV2
GL5-S32MB	25	32	150	5.00	60	0.16	GI337	KV2
GL6-S32MB	25	32	150	6.00	60	0.16	GI338	KV2

GI334	GL2..
GI335	GL3..
GI336	GL4..
GI337	GL5..
GI338	GL6..

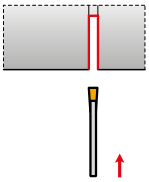
KV2	KV 15x150

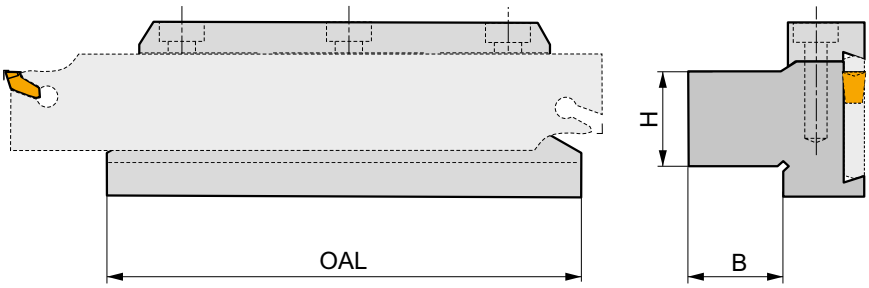
DU, D

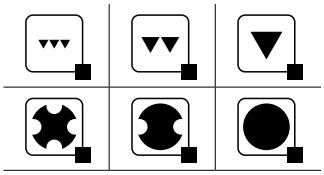
PRAMET

Tool Holder Block for Parting-off Blades

Tool holder to fit GL or XLC. blades for parting-off. Available with shank size 20x20 up to 40x40 mm. Body treated for longer tool life.







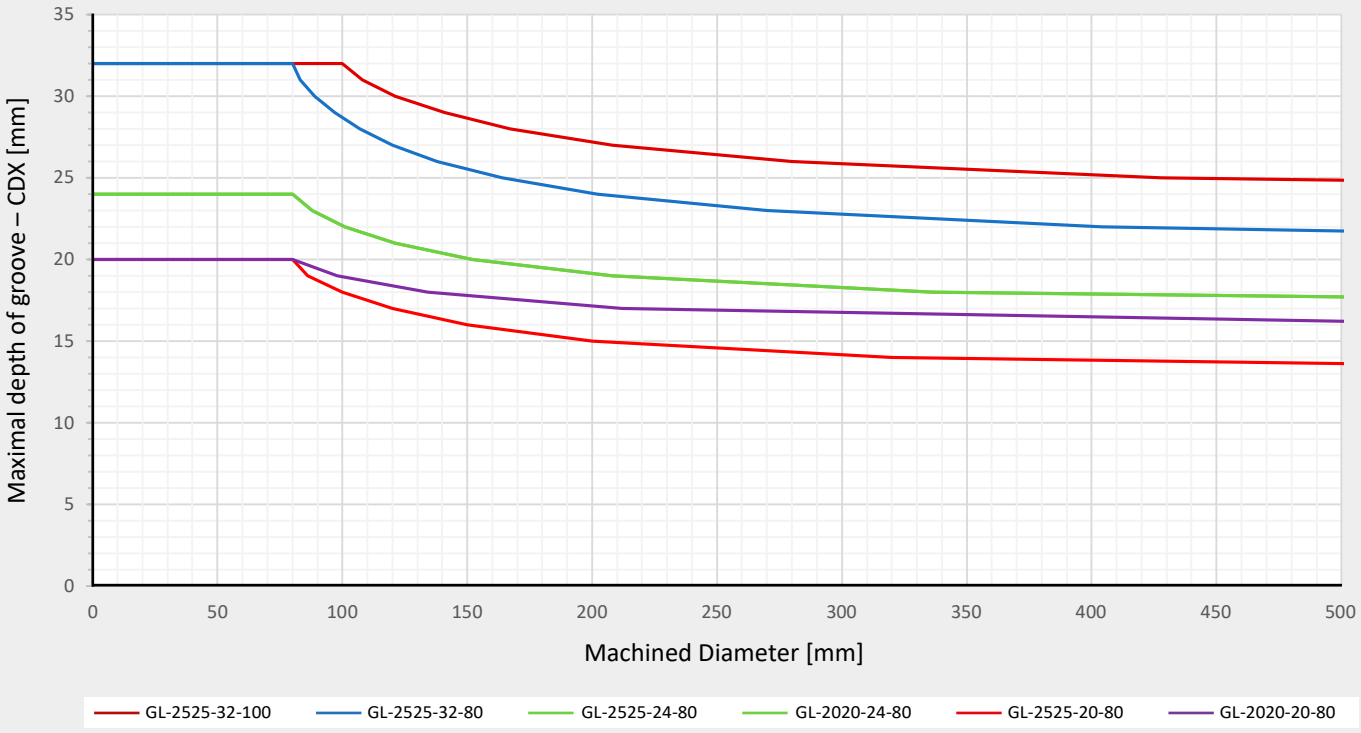
Product	H [mm]	B [mm]	LB [mm]	kg		
26-DU 2020	20	20	90	0.70	GI007	ND2
26-D 2020	20	20	100	0.82	GI007	ND2
32-DU 2523	25	23	110	1.02	GI008	ND2
32-DU 2532	25	32	110	1.10	GI008	ND2
32-DU 3229	32	29	110	1.25	GI008	ND2
32-D 2530	25	30	115	1.30	GI008	ND2
45-DU 3229	32	29	110	1.50	GI009	ND7
45-DU 4036	40	36	110	2.05	GI009	ND7
47-D 4040	40	40	150	3.88	GI091	ND3

GI007	XLC.N 26..	GL.-S26.B
GI008	XLC.N 32..	GL.-S32.B
GI009	XLC.N 45..	–
GI091	XLC.N 47..	–

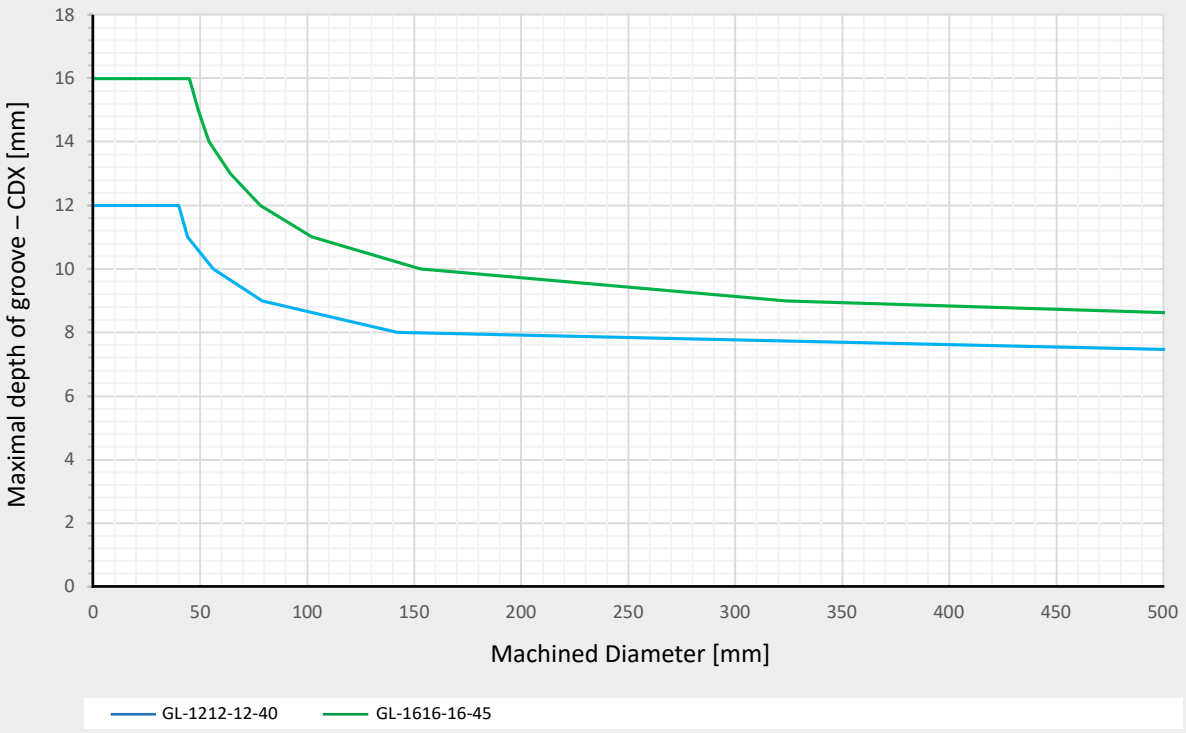
		Nm			
ND2	HS 0625	6.0	M 6	25	HXK 5
ND3	HS 1030	8.0	M 10	30	HXK 8
ND7	HS 0630	6.0	M 6	30	HXK 5

CUTTING DEPTHS DEPENDING ON MACHINED DIAMETER

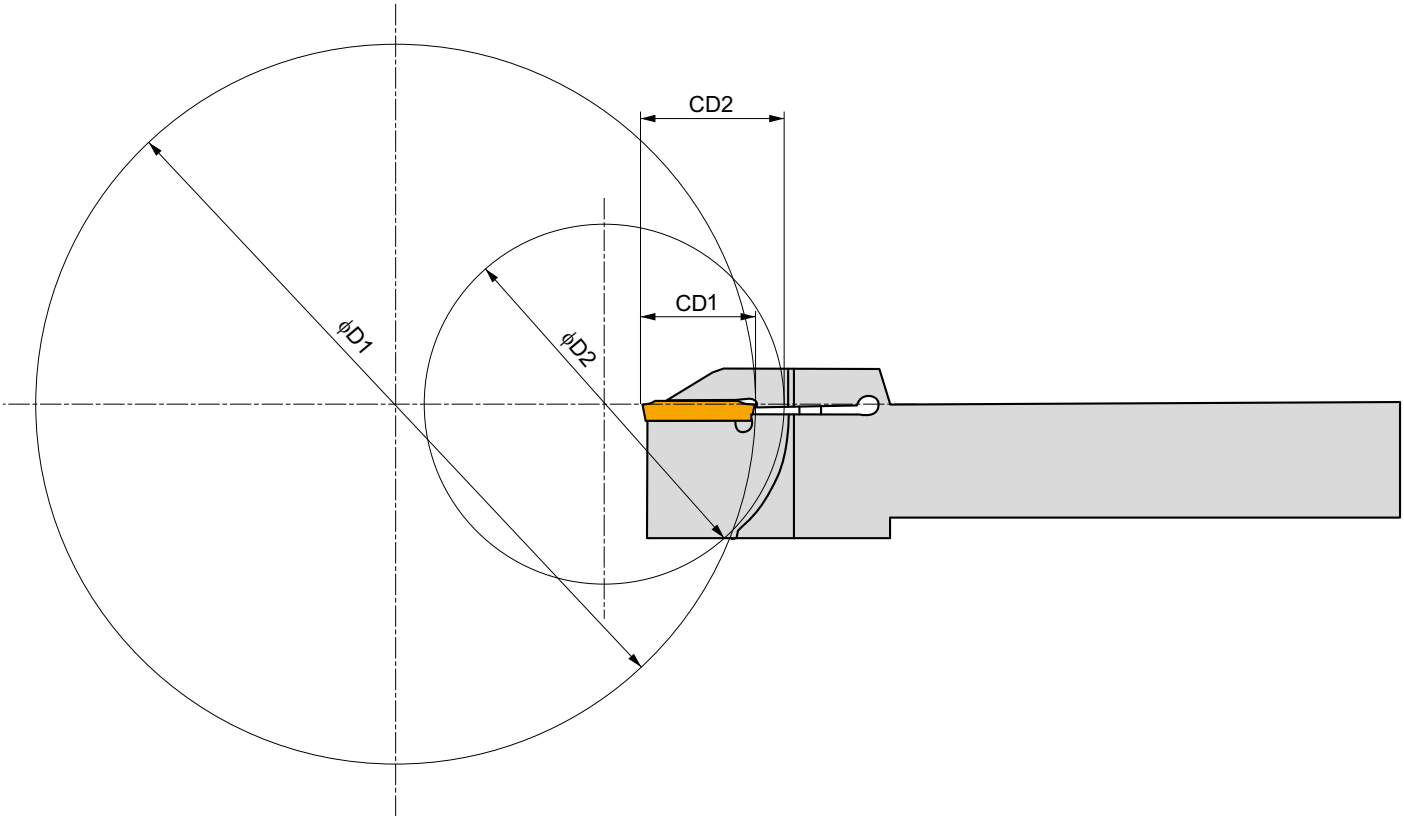
GLSF (RL) EXT



GLSF (RL) EXT-S



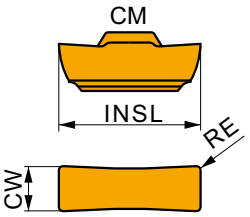
CUTTING DEPTHS DEPENDING ON MACHINED DIAMETER



LCMF 13 - CM

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0313	3.00	-0.05	0.05	12.6
0413	4.00	-0.05	0.05	12.6



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

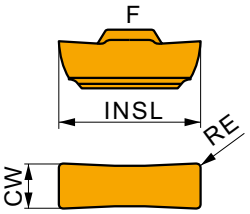
Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
			E													
			CM geometry and first choice for grooving.													
LCMF 031304-CM	**T8330**	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 031304-CM-04	**T8330**[1)]	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 041304-CM	**T8330**	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–

[1)] Insert for internal holder A16Q-GGERIL0313-04, A20R-GGFRIL0313-04.

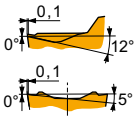
LCMF 13 - F

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0313	3.00	-0.05	0.05	12.6
0413	4.00	-0.05	0.05	12.6



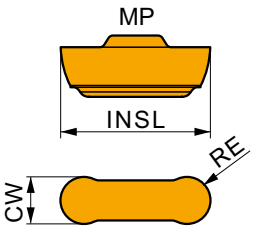
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U	S																
			F geometry and first choice for turning.																	
LCMF 031302-F	**T8330**	0.2	195	0.10	0.3	115	0.09	0.3	185	0.10	0.3	–	–	–	–	–	–	–	–	–
LCMF 031302-F-04	**T8330**[1)]	0.2	195	0.10	0.3	115	0.09	0.3	185	0.10	0.3	–	–	–	–	–	–	–	–	–
LCMF 031304-F	**T8330**	0.4	185	0.13	0.5	110	0.12	0.5	175	0.13	0.5	–	–	–	–	–	–	–	–	–
LCMF 031304-F-04	**T8330**[1)]	0.4	185	0.13	0.5	110	0.12	0.5	175	0.13	0.5	–	–	–	–	–	–	–	–	–
LCMF 041304-F	**T8330**	0.4	185	0.13	0.5	110	0.12	0.5	175	0.13	0.5	–	–	–	–	–	–	–	–	–
	T9325	0.4	275	0.13	0.5	165	0.12	0.5	260	0.13	0.5	–	–	–	–	–	–	–	–	–

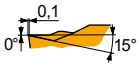
[1)] Insert for internal holder A16Q-GGERIL0313-04, A20R-GGFRIL0313-04.

LCMF 13 - MP

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0313	3.00	-0.05	0.05	12.6
0413	4.00	-0.05	0.05	12.6



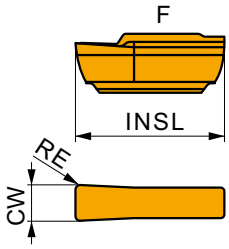
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			MP geometry for longitudinal turning and copy profiling, fine and finish machining, and continuous to interrupted cuts.																	
LCMF 0313MO-MP	**T8330**	1.5	■ 190	0.30	0.8	◪ 110	0.27	0.8	■ 180	0.30	0.8	–	–	–	–	–	–	–	–	–
LCMF 0313MO-MP-04	**T8330**[1)]	1.5	■ 190	0.30	0.8	◪ 110	0.27	0.8	■ 180	0.30	0.8	–	–	–	–	–	–	–	–	–
LCMF 0413MO-MP	**T8330**	2.0	■ 175	0.40	1.0	◪ 105	0.36	1.0	■ 165	0.40	1.0	–	–	–	–	–	–	–	–	–

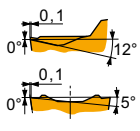
[1)] Insert for internal holder A16Q-GGERIL0313-04, A20R-GGFRIL0313-04.

LCMR 13 - F

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0313	3.00	-0.05	0.05	12.6
0413	4.00	-0.05	0.05	12.6

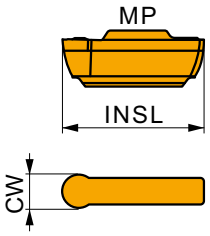


Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

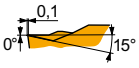
Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
			F geometry for grooving and turning, fine and finish machining, and continuous to slightly interrupted cuts.																	
LCMR 031304-F	**T8330**	0.4	■ 185	0.13	0.5	◪ 110	0.12	0.5	◪ 175	0.13	0.5	–	–	–	–	–	–	–	–	–
LCMR 041304-F	**T8330**	0.4	■ 185	0.13	0.5	◪ 110	0.12	0.5	◪ 175	0.13	0.5	–	–	–	–	–	–	–	–	–

LCMR 13 - MP

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0313	3.00	-0.05	0.05	12.6
0413	4.00	-0.05	0.05	12.6



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
MP geometry for longitudinal turning and copy profiling, and continuous to interrupted cuts.																				
LCMR 0313M0-MP	**T8330**	1.5	■	190	0.30	0.8	◪	110	0.27	0.8	■	180	0.30	0.8	–	–	–	–	–	–	–	–	–
LCMR 0413M0-MP	**T8330**	2.0	■	175	0.40	1.0	◪	105	0.36	1.0	■	165	0.40	1.0	–	–	–	–	–	–	–	–	–

GG.(RL) INT

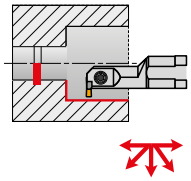
P M K N S H

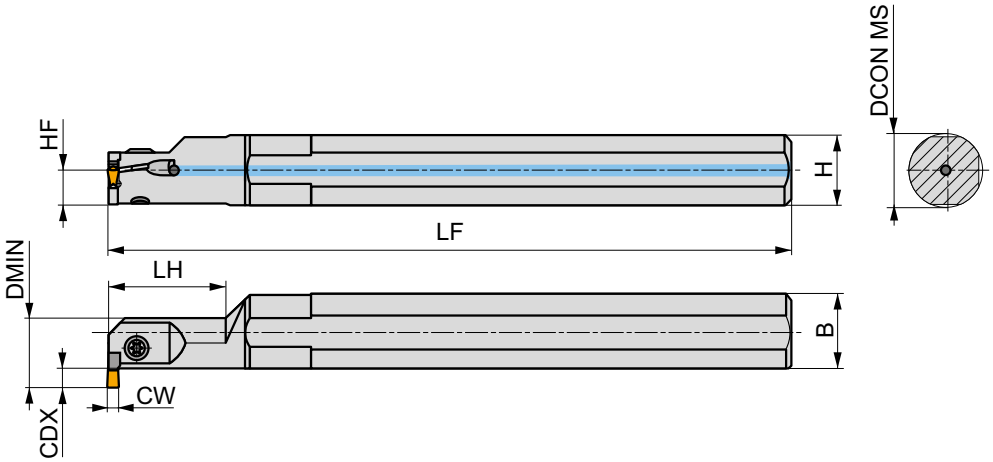
PRAMET

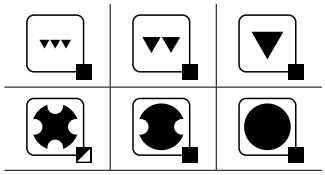
G

Internal Grooving Boring Bar for LCM. Inserts

Internal Right/Left hand grooving boring bar for grooving with LCM. 0313 and 0413 inserts. Minimum internal grooving diameter Ø16 mm. Suited for internal grooving and multi-directional turning. Available with shank size Ø16 up to Ø32 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	HF [mm]	H [mm]	B [mm]	LF [mm]	LH [mm]	CW [mm]	CDX [mm]	DMIN [mm]		kg		
R	A16Q-GGER 0313	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.26	GI143	GL06
	A16Q-GGER 0313-04	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.26	GI190	GL06
	A20R-GGFR 0313	20	9	18	19	200	30	3.00	4.5	20	✓	0.36	GI143	GL06
	A20R-GGFR 0313-04	20	9	18	19	200	30	3.00	4.5	20	✓	0.39	GI190	GL06
	A25S-GGHR 0313	25	11.5	23	24	250	40	3.00	6.5	25	✓	0.78	GI143	GL06
	A25S-GGFR 0413	25	11.5	23	24	250	40	4.00	6.5	25	✓	0.73	GI170	GL06
	A32T-GGHR 0413	32	15	30	31	300	50	4.00	9.5	32	✓	1.59	GI170	GL06
L	A16Q-GGEL 0313	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.29	GI143	GL06
	A16Q-GGEL 0313-04	16	7.5	15	15.5	180	25	3.00	3	16	✓	0.28	GI190	GL06
	A20R-GGFL 0313	20	9	18	19	200	30	3.00	4.5	20	✓	0.38	GI143	GL06
	A20R-GGFL 0313-04	20	9	18	19	200	30	3.00	4.5	20	✓	0.38	GI190	GL06
	A25S-GGHL 0313	25	11.5	23	24	250	40	3.00	6.5	25	✓	0.81	GI143	GL06
	A25S-GGFL 0413	25	11.5	23	24	250	40	4.00	6.5	25	✓	0.82	GI170	GL06
	A32T-GGHL 0413	32	15	30	31	300	50	4.00	9.5	32	✓	1.59	GI170	GL06

GI143	LCM. 0313..
GI170	LCM. 0413..
GI190	LCM. 0313.....-04

		Nm			
GL06	SR 85011-T15P	5.0	M 5	9	FLAG T15P

GFIL-L AXIAL

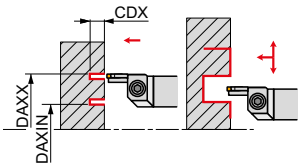
P M K N S H

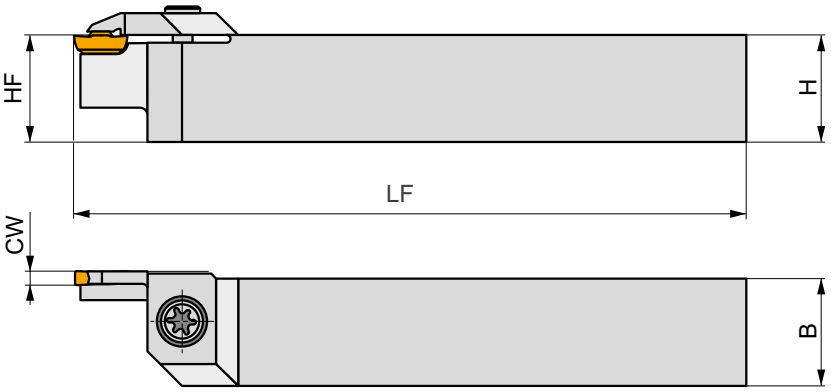
PRAMET

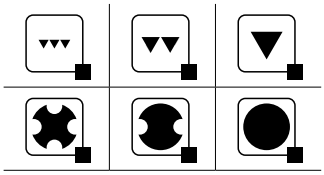
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications with maximum depth of cut 9 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	**GFIL 2525 M 0313L 030017**	25	25	25	150	3.00	9	17	30	0.64	GI143	GL02
	GFIL 2525 M 0313L 039024	25	25	25	150	3.00	9	24	39	0.66	GI143	GL07
	GFIL 2525 M 0313L 050033	25	25	25	150	3.00	9	33	50	0.67	GI143	GL07
	GFIL 2525 M 0313L 060043	25	25	25	150	3.00	9	43	60	0.67	GI143	GL07
	GFIL 2525 M 0313L 076053	25	25	25	150	3.00	9	53	76	0.67	GI143	GL07
	GFIL 2525 M 0316L 100070	25	25	25	150	3.00	9	70	100	0.69	GI136	GL07
	GFIL 2525 M 0316L 130090	25	25	25	150	3.00	9	90	130	0.70	GI136	GL07
	GFIL 2525 M 0316L 170110	25	25	25	150	3.00	9	110	170	0.71	GI136	GL07

GI136	LCM. 0316..
GI143	LCM. 0313..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GFIL-R AXIAL

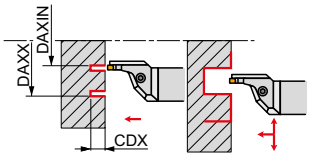
P M K N S H

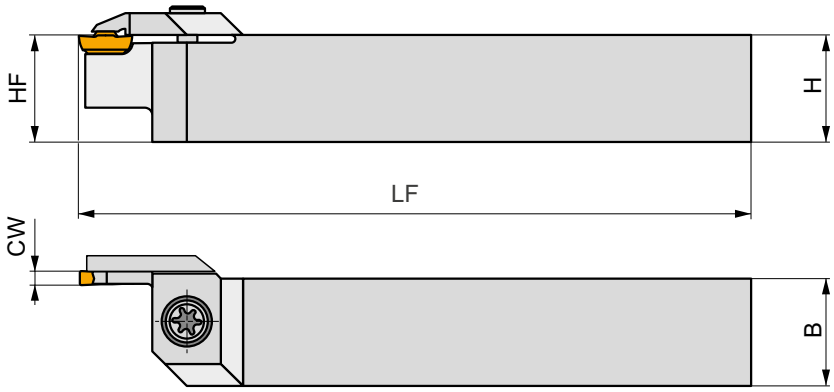
PRAMET

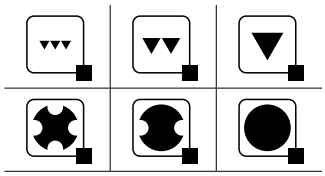
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 or 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0313, 0316, 0413 or 0416 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 12 mm. Available with shank size 25x25. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
	GFIL 2525 M 03R 030017-A	25	25	25	150	3.00	9	17	30	0.69	GI143	GL07
	GFIL 2525 M 03R 039024-A	25	25	25	150	3.00	9	24	39	0.69	GI143	GL07
	GFIL 2525 M 03R 050033-A	25	25	25	150	3.00	9	33	50	0.72	GI143	GL07
	GFIL 2525 M 03R 060043-A	25	25	25	150	3.00	9	43	60	0.69	GI143	GL07
	GFIL 2525 M 03R 076053-A	25	25	25	150	3.00	9	53	76	0.68	GI143	GL07
	GFIL 2525 M 03R 100070-A	25	25	25	150	3.00	9	70	100	0.79	GI136	GL08
	GFIL 2525 M 03R 130090-A	25	25	25	150	3.00	9	90	130	0.73	GI136	GL08
L	GFIL 2525 M 03R 170110-A	25	25	25	150	3.00	9	110	170	0.76	GI136	GL08
	GFIL 2525 M 04R 030017-A	25	25	25	150	3.00	9	17	30	0.71	GI170	GL07
	GFIL 2525 M 04R 034021-A	25	25	25	150	4.00	9	21	34	0.69	GI170	GL07
	GFIL 2525 M 04R 040026-A	25	25	25	150	4.00	11	26	40	0.00	GI170	GL07
	GFIL 2525 M 04R 050032-A	25	25	25	150	4.00	11	32	50	0.68	GI170	GL07
	GFIL 2525 M 04R 060042-A	25	25	25	150	4.00	11	42	60	0.66	GI170	GL07
	GFIL 2525 M 04R 075052-A	25	25	25	150	4.00	11	52	75	0.67	GI170	GL07
	GFIL 2525 M 04R 100070-A	25	25	25	150	4.00	12	70	100	0.75	GI137	GL08
L	GFIL 2525 M 04R 130090-A	25	25	25	150	4.00	12	90	130	0.75	GI137	GL08
	GFIL 2525 M 04R 170110-A	25	25	25	150	4.00	12	110	170	0.75	GI137	GL08
	GFIL 2525 M 04R 230140-A	25	25	25	150	4.00	12	140	230	0.78	GI137	GL08

GI136	LCM. 0316..
GI137	LCM. 0416..
GI143	LCM. 0313..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFIR-L AXIAL

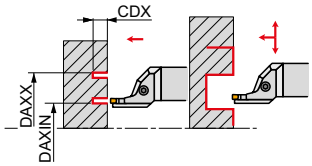
P M K N S H

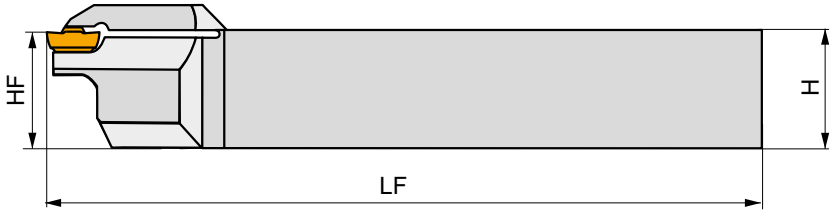
PRAMET

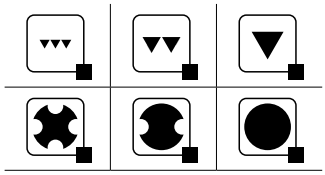
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 or 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0313, 0316, 0413 or 0416 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 12 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
	GFIR 2525 M 03L 030017-A	25	25	25	150	3.00	9	17	30	0.65	GI143	GL07
	GFIR 2525 M 03L 039024-A	25	25	25	150	3.00	9	24	39	0.68	GI143	GL07
	GFIR 2525 M 03L 050033-A	25	25	25	150	3.00	9	33	50	0.65	GI143	GL07
	GFIR 2525 M 03L 060043-A	25	25	25	150	3.00	9	43	60	0.68	GI143	GL07
	GFIR 2525 M 03L 076053-A	25	25	25	150	3.00	9	53	76	0.69	GI143	GL07
	GFIR 2525 M 03L 100070-A	25	25	25	150	3.00	9	70	100	0.75	GI136	GL08
	GFIR 2525 M 03L 130090-A	25	25	25	150	3.00	9	90	130	0.76	GI136	GL08
R	GFIR 2525 M 03L 170110-A	25	25	25	150	3.00	9	110	170	0.68	GI136	GL08
	GFIR 2525 M 04L 030017-A	25	25	25	150	3.00	9	17	30	0.68	GI170	GL07
	GFIR 2525 M 04L 034021-A	25	25	25	150	4.00	9	21	34	0.68	GI170	GL07
	GFIR 2525 M 04L 040026-A	25	25	25	150	4.00	11	26	40	0.68	GI170	GL07
	GFIR 2525 M 04L 050032-A	25	25	25	150	4.00	11	32	50	0.66	GI170	GL07
	GFIR 2525 M 04L 060042-A	25	25	25	150	4.00	11	42	60	0.69	GI170	GL07
	GFIR 2525 M 04L 075052-A	25	25	25	150	4.00	11	52	75	0.67	GI170	GL07
	GFIR 2525 M 04L 100070-A	25	25	25	150	4.00	12	70	100	0.72	GI137	GL08
	GFIR 2525 M 04L 130090-A	25	25	25	150	4.00	12	90	130	0.75	GI137	GL08
R	GFIR 2525 M 04L 170110-A	25	25	25	150	4.00	12	110	170	0.72	GI137	GL08
	GFIR 2525 M 04L 230140-A	25	25	25	150	4.00	12	140	230	0.79	GI137	GL08

GI136	LCM. 0316..
GI137	LCM. 0416..
GI143	LCM. 0313..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFIR-R AXIAL

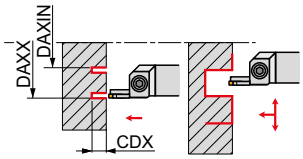
P M K N S H

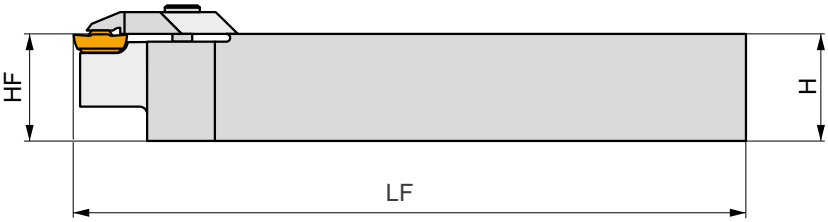
PRAMET

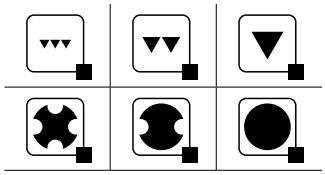
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications, with maximum depth of cut 9 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	**GFIR 2525 M 0313R 030017**	25	25	25	150	3.00	9	17	30	0.65	GI143	GL02
	GFIR 2525 M 0313R 039024	25	25	25	150	3.00	9	24	39	0.66	GI143	GL07
	GFIR 2525 M 0313R 050033	25	25	25	150	3.00	9	33	50	0.68	GI143	GL07
	GFIR 2525 M 0313R 060043	25	25	25	150	3.00	9	43	60	0.68	GI143	GL07
	GFIR 2525 M 0313R 076053	25	25	25	150	3.00	9	53	76	0.68	GI143	GL07
	GFIR 2525 M 0316R 100070	25	25	25	150	3.00	9	70	100	0.69	GI136	GL07
	GFIR 2525 M 0316R 130090	25	25	25	150	3.00	9	90	130	0.70	GI136	GL07
	GFIR 2525 M 0316R 170110	25	25	25	150	3.00	9	110	170	0.70	GI136	GL07

GI136	LCM. 0316..
GI143	LCM. 0313..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GFML-L AXIAL

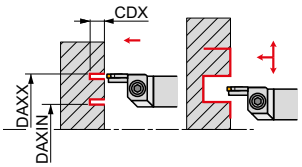
P M K N S H

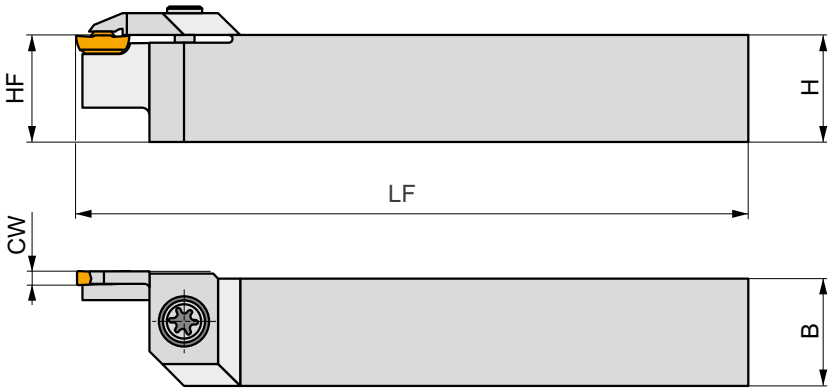
PRAMET

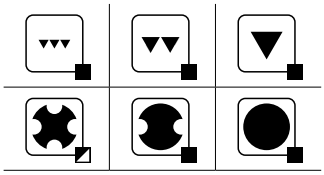
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	**GFML 2525 M 0413L 030017**	25	25	25	150	4.00	20	17	30	0.62	GI170	GL02
	GFML 2525 M 0413L 034021	25	25	25	150	4.00	20	21	34	0.63	GI170	GL07
	GFML 2525 M 0413L 040026	25	25	25	150	4.00	20	26	40	0.65	GI170	GL07
	GFML 2525 M 0413L 050032	25	25	25	150	4.00	20	32	50	0.64	GI170	GL07
	GFML 2525 M 0413L 060042	25	25	25	150	4.00	20	42	60	0.65	GI170	GL07
	GFML 2525 M 0413L 075052	25	25	25	150	4.00	20	52	75	0.66	GI170	GL07
	GFML 2525 M 0416L 100070	25	25	25	150	4.00	20	70	100	0.66	GI137	GL07
	GFML 2525 M 0416L 130090	25	25	25	150	4.00	20	90	130	0.67	GI137	GL07
	GFML 2525 M 0416L 170110	25	25	25	150	4.00	20	110	170	0.67	GI137	GL07
	GFML 2525 M 0416L 230140	25	25	25	150	4.00	20	140	230	0.67	GI137	GL07

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

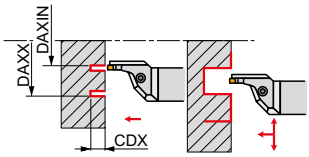
GFML-R AXIAL

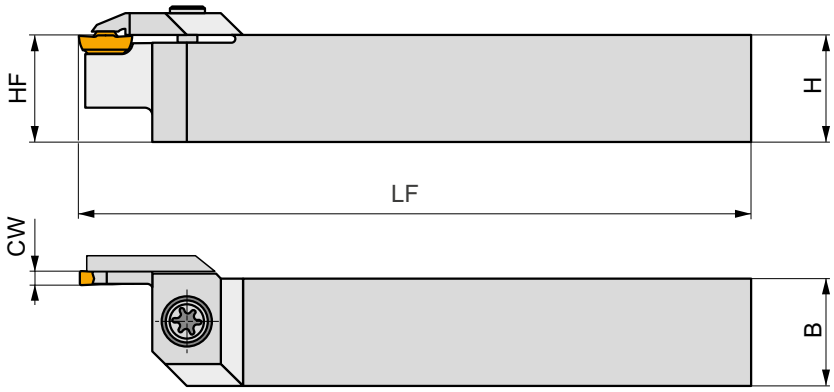
P M K N S H

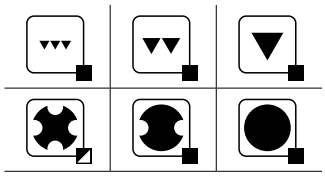
PRAMET G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	GFML 2525 M 0413R 030017	25	25	25	150	4.00	20	17	30	0.68	GI170	GL07
	GFML 2525 M 0413R 034021	25	25	25	150	4.00	20	21	34	0.69	GI170	GL07
	GFML 2525 M 0413R 040026	25	25	25	150	4.00	20	26	40	0.69	GI170	GL07
	GFML 2525 M 0413R 050032	25	25	25	150	4.00	20	32	50	0.68	GI170	GL07
	GFML 2525 M 0413R 060042	25	25	25	150	4.00	20	42	60	0.69	GI170	GL07
	GFML 2525 M 0413R 075052	25	25	25	150	4.00	20	52	75	0.69	GI170	GL07
	GFML 2525 M 0416R 100070	25	25	25	150	4.00	20	70	100	0.80	GI137	GL08
	GFML 2525 M 0416R 130090	25	25	25	150	4.00	20	90	130	0.78	GI137	GL08
	GFML 2525 M 0416R 170110	25	25	25	150	4.00	20	110	170	0.78	GI137	GL08
	GFML 2525 M 0416R 230140	25	25	25	150	4.00	20	140	230	0.78	GI137	GL08

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFMR-L AXIAL

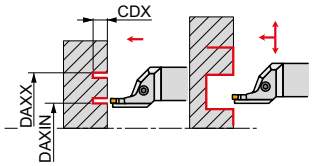
P M K N S H

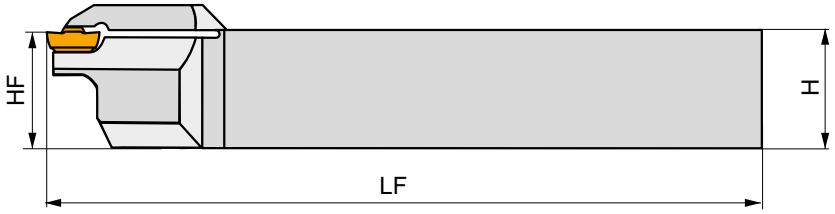
PRAMET

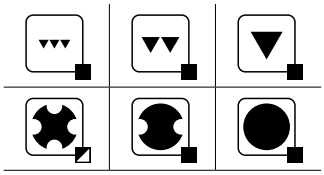
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	GFMR 2525 M 0413L 030017	25	25	25	150	4.00	20	17	30	0.70	GI170	GL07
	GFMR 2525 M 0413L 034021	25	25	25	150	4.00	20	21	34	0.66	GI170	GL07
	GFMR 2525 M 0413L 040026	25	25	25	150	4.00	20	26	40	0.66	GI170	GL07
	GFMR 2525 M 0413L 050032	25	25	25	150	4.00	20	32	50	0.68	GI170	GL07
	GFMR 2525 M 0413L 060042	25	25	25	150	4.00	20	42	60	0.66	GI170	GL07
	GFMR 2525 M 0413L 075052	25	25	25	150	4.00	20	52	75	0.69	GI170	GL07
	GFMR 2525 M 0416L 100070	25	25	25	150	4.00	20	70	100	0.88	GI137	GL08
	GFMR 2525 M 0416L 130090	25	25	25	150	4.00	20	90	130	0.78	GI137	GL08
	GFMR 2525 M 0416L 170110	25	25	25	150	4.00	20	110	170	0.81	GI137	GL08
	GFMR 2525 M 0416L 230140	25	25	25	150	4.00	20	140	230	0.78	GI137	GL08

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

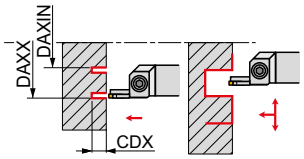
GFMR-R AXIAL

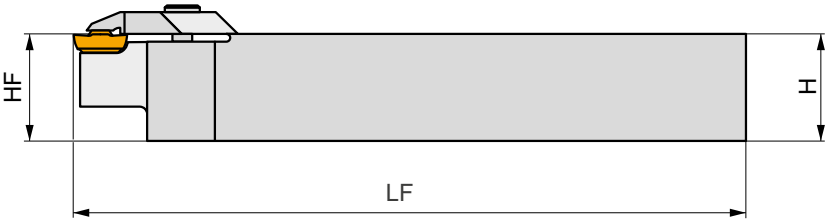
P M K N S H

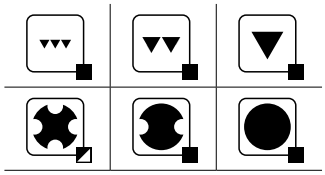
PRAMET G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	GFMR 2525 M 0413R 030017	25	25	25	150	4.00	20	17	30	0.62	GI170	GL02
	GFMR 2525 M 0413R 034021	25	25	25	150	4.00	20	21	34	0.63	GI170	GL07
	GFMR 2525 M 0413R 040026	25	25	25	150	4.00	20	26	40	0.64	GI170	GL07
	GFMR 2525 M 0413R 050032	25	25	25	150	4.00	20	32	50	0.63	GI170	GL07
	GFMR 2525 M 0413R 060042	25	25	25	150	4.00	20	42	60	0.64	GI170	GL07
	GFMR 2525 M 0413R 075052	25	25	25	150	4.00	20	52	75	0.67	GI170	GL07
	GFMR 2525 M 0416R 100070	25	25	25	150	4.00	20	70	100	0.67	GI137	GL07
	GFMR 2525 M 0416R 130090	25	25	25	150	4.00	20	90	130	0.66	GI137	GL07
	GFMR 2525 M 0416R 170110	25	25	25	150	4.00	20	110	170	0.67	GI137	GL07
	GFMR 2525 M 0416R 230140	25	25	25	150	4.00	20	140	230	0.68	GI137	GL07

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GGI(RL)-90 AXIAL

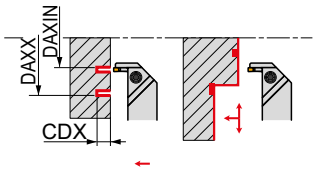
P M K N S H

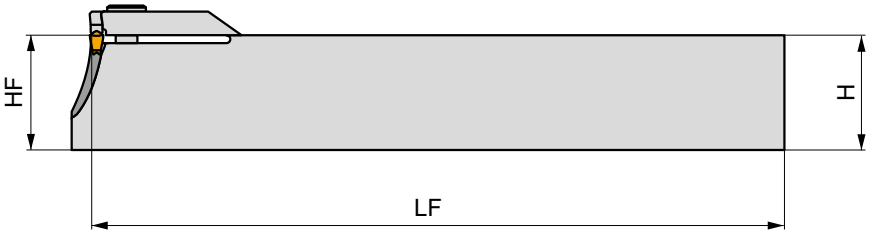
PRAMET

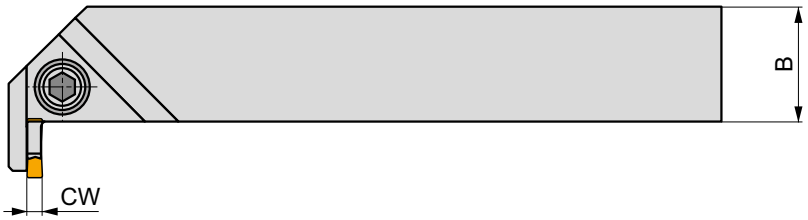
G

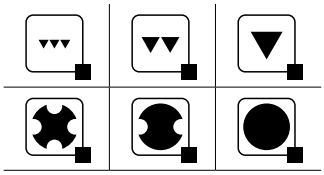
External Axial 90° V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External Right/Left hand axial 90° tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications, with maximum depth of cut 11 mm. Available with shank size 25x25 mm. Body treated for longer tool life.









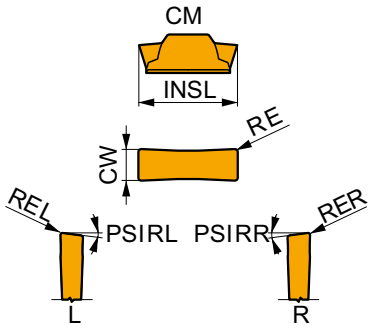
	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	GGIR 2525 M 03R 030017	25	25	25	150	3.00	9.5	17	30	0.75	GI143	GL01
	GGIR 2525 M 03R 039024	25	25	25	150	3.00	9.5	24	39	0.78	GI143	GL01
	GGIR 2525 M 03R 050033	25	25	25	150	3.00	11	33	50	0.75	GI143	GL01
	GGIR 2525 M 03R 060043	25	25	25	150	3.00	11	43	60	0.78	GI143	GL01
	GGIR 2525 M 03R 076053	25	25	25	150	3.00	11	53	76	0.75	GI143	GL01
	GGIR 2525 M 03R 100070	25	25	25	150	3.00	9	70	100	0.78	GI136	GL04
	GGIR 2525 M 03R 130090	25	25	25	150	3.00	9	90	130	0.73	GI136	GL04
	GGIR 2525 M 03R 170110	25	25	25	150	3.00	9	110	170	0.76	GI136	GL04
L	GGIL 2525 M 03L 030017	25	25	25	150	3.00	9.5	17	30	0.75	GI143	GL01
	GGIL 2525 M 03L 039024	25	25	25	150	3.00	9.5	24	39	0.25	GI143	GL01
	GGIL 2525 M 03L 050033	25	25	25	150	3.00	11	33	50	0.75	GI143	GL01
	GGIL 2525 M 03L 060043	25	25	25	150	3.00	11	43	60	0.75	GI143	GL01
	GGIL 2525 M 03L 076053	25	25	25	150	3.00	11	53	76	0.75	GI143	GL01
	GGIL 2525 M 03L 100070	25	25	25	150	3.00	9	70	100	0.77	GI136	GL04
	GGIL 2525 M 03L 130090	25	25	25	150	3.00	9	90	130	0.77	GI136	GL04
	GGIL 2525 M 03L 170110	25	25	25	150	3.00	9	110	170	0.76	GI136	GL04

GI136	LCM. 0316..
GI143	LCM. 0313..

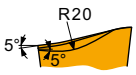
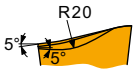
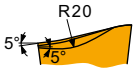
GL01	HS 0520C	5.0	M 5	20	HXK 4
GL04	HS 0620C	6.0	M 6	20	HXK 5

LCMF 16 - CM

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4
0516	5.00	-0.05	0.05	16.4
0616	6.00	-0.05	0.05	16.4



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our cutting conditions app for further options.

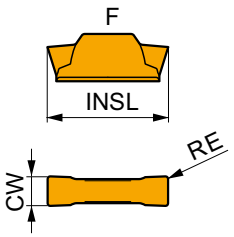
Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
																
CM geometry, first choice for parting-off and grooving, and continuous to slightly interrupted cuts.																
LCMF 031602-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 031604-CM	**T8330**	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 041602-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 041604-CM	**T8330**	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMF 051604-CM	**T8330**	0.4	130	0.11	75	0.11	120	0.11	–	–	–	–	–	–	–	–
LCMF 061604-CM	**T8330**	0.4	130	0.11	75	0.11	120	0.11	–	–	–	–	–	–	–	–
																
R-CM geometry, right-handed design, first choice for parting-off and continuous to slightly interrupted cuts.																
LCMF 031602R15-CM	**T8330**[1)]	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	15	–
LCMF 031602R6-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	6	–
LCMF 041602R15-CM	**T8330**[1)]	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	15	–
LCMF 041602R6-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	6	–
																
L-CM geometry, left-handed design, first choice for parting-off and continuous to slightly interrupted cuts.																
LCMF 031602L15-CM	**T8330**[1)]	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	15
LCMF 031602L6-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	6
LCMF 041602L15-CM	**T8330**[1)]	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	15
LCMF 041602L6-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	6

[1)] Toolholders have to be modified.

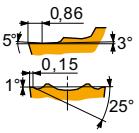
LCMF 16, LCMF 30 - F

PRAMET

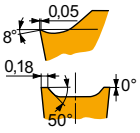
	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4
0516	5.00	-0.05	0.05	16.4
0616	6.00	-0.05	0.05	16.4
0830	8.00	-0.05	0.05	30.0



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our cutting conditions app for further options.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
LCMF 031602-F	**T8330**	0.2	■ 195	0.10	0.3	◪ 115	0.09	0.3	◪ 185	0.10	0.3	–	–	–	–	–	–	–	–	–
LCMF 031604-F	**T8330**	0.4	■ 200	0.10	0.5	◪ 120	0.09	0.5	◪ 190	0.10	0.5	–	–	–	–	–	–	–	–	–
LCMF 041604-F	**T8330**	0.4	■ 185	0.13	0.5	◪ 110	0.12	0.5	◪ 175	0.13	0.5	–	–	–	–	–	–	–	–	–
	T9325	0.4	■ 275	0.13	0.5	◪ 165	0.12	0.5	◪ 260	0.13	0.5	–	–	–	–	–	–	–	–	–
LCMF 041608-F	**T8330**	0.8	■ 205	0.13	1.0	◪ 120	0.12	1.0	◪ 190	0.13	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 305	0.13	1.0	◪ 180	0.12	1.0	◪ 285	0.13	1.0	–	–	–	–	–	–	–	–	–
LCMF 051608-F	**T8330**	0.8	■ 195	0.15	1.0	◪ 115	0.14	1.0	◪ 185	0.15	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 285	0.15	1.0	◪ 170	0.14	1.0	◪ 270	0.15	1.0	–	–	–	–	–	–	–	–	–
LCMF 061608-F	**T8330**	0.8	■ 190	0.17	1.0	◪ 110	0.15	1.0	◪ 180	0.17	1.0	–	–	–	–	–	–	–	–	–
	T9325	0.8	■ 270	0.17	1.0	◪ 160	0.15	1.0	◪ 255	0.17	1.0	–	–	–	–	–	–	–	–	–

F geometry for parting-off, grooving and axial turning, fine and finish machining, and continuous to slightly interrupted cuts.

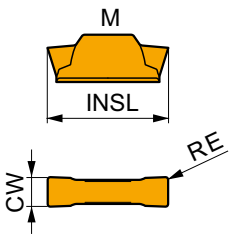


LCMF 083008-F	**T8330**	0.8	■ 175	0.25	1.0	◪ 105	0.23	1.0	◪ 165	0.25	1.0	–	–	–	–	–	–	–	–	–
LCMF 083012-F	**T8330**	1.2	■ 170	0.25	1.5	◪ 100	0.23	1.5	◪ 160	0.25	1.5	–	–	–	–	–	–	–	–	–

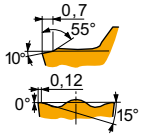
LCMF 16 - M

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4
0516	5.00	-0.05	0.05	16.4
0616	6.00	-0.05	0.05	16.4



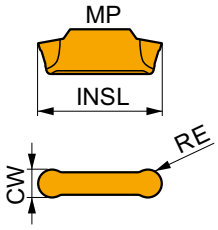
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our cutting conditions app for further options.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U E																	
	M geometry for grooving and longitudinal turning, and continuous to interrupted cuts.																			
LCMF 031602-M	**T8330**	0.2	160	0.13	1.0	95	0.12	1.0	150	0.13	1.0	–	–	–	–	–	–	30	0.15	1.0
LCMF 031604-M	**T8330**	0.4	170	0.13	1.0	100	0.12	1.0	160	0.13	1.0	–	–	–	–	–	–	30	0.15	1.0
LCMF 041604-M	**T8330**	0.4	155	0.18	1.0	90	0.16	1.0	145	0.18	1.0	–	–	–	–	–	–	30	0.15	1.0
	T9325	0.4	225	0.18	1.0	135	0.16	1.0	210	0.18	1.0	–	–	–	–	–	–	–	–	–
LCMF 041608-M	**T8330**	0.8	185	0.18	1.0	110	0.16	1.0	175	0.18	1.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	265	0.18	1.0	155	0.16	1.0	250	0.18	1.0	–	–	–	–	–	–	–	–	–
LCMF 051608-M	**T8330**	0.8	180	0.20	1.0	105	0.18	1.0	170	0.20	1.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	255	0.20	1.0	150	0.18	1.0	240	0.20	1.0	–	–	–	–	–	–	–	–	–
LCMF 061608-M	**T8330**	0.8	175	0.25	1.0	105	0.23	1.0	165	0.25	1.0	–	–	–	–	–	–	35	0.15	1.0
	T9325	0.8	230	0.25	1.0	135	0.23	1.0	215	0.25	1.0	–	–	–	–	–	–	–	–	–

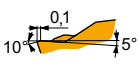
LCMF 16, LCMF 30 - MP

PRAMET

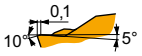
	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	17.5
0416	4.00	-0.05	0.05	17.6
0516	5.00	-0.05	0.05	18.3
0616	6.00	-0.05	0.05	18.5
0830	8.00	-0.05	0.05	30.9



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our cutting conditions app for further options.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			U S																	
	MP geometry for longitudinal turning and copy profiling, and continuous to interrupted cuts.																			
LCMF 0316MO-MP	**T8330**	1.5	190	0.30	0.8	110	0.27	0.8	180	0.30	0.8	–	–	–	–	–	–	–	–	–
LCMF 0416MO-MP	**T8330**	2.0	175	0.40	1.0	105	0.36	1.0	165	0.40	1.0	–	–	–	–	–	–	–	–	–
	T9325	2.0	220	0.40	1.0	130	0.36	1.0	205	0.40	1.0	–	–	–	–	–	–	–	–	–
LCMF 0516MO-MP	**T8330**	2.5	170	0.45	1.0	100	0.41	1.0	160	0.45	1.0	–	–	–	–	–	–	–	–	–
	T9325	2.5	205	0.45	1.0	120	0.41	1.0	190	0.45	1.0	–	–	–	–	–	–	–	–	–

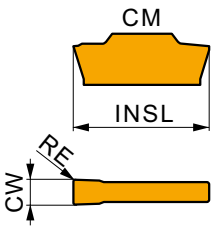
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our cutting conditions app for further options.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
																				
MP geometry for longitudinal turning and copy profiling, and continuous to interrupted cuts.																				
LCMF 0616MO-MP	**T8330**	3.0	165	0.50	1.0	95	0.45	1.0	155	0.50	1.0	–	–	–	–	–	–	–	–	–
	T9325	3.0	200	0.50	1.0	120	0.45	1.0	190	0.50	1.0	–	–	–	–	–	–	–	–	–
LCMF 0830MO-MP	**T8330**	4.0	150	0.60	1.2	90	0.54	1.2	140	0.60	1.2	–	–	–	–	–	–	–	–	–

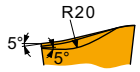
LCMR 16 - CM

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4



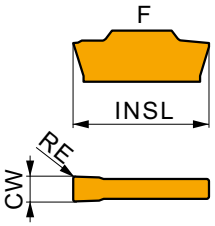
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
																
CM geometry, first choice for parting-off and grooving, and continuous to slightly interrupted cuts.																
LCMR 031602-CM	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LCMR 041604-CM	**T8330**	0.4	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–

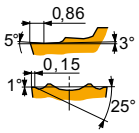
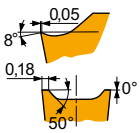
LCMR 16, LCMR 30 - F

PRAMET

	CW [mm]	CWTOLL [mm]	CWTOLU [mm]	INSL [mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4
0516	5.00	-0.05	0.05	16.4
0616	6.00	-0.05	0.05	16.4
0830	8.00	-0.05	0.05	30.0



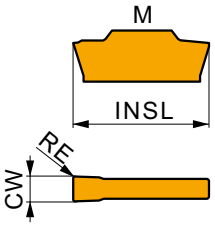
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			F geometry for parting-off, grooving and longitudinal turning, fine and finish machining, and continuous to slightly interrupted cuts.																	
LCMR 031604-F	**T8330**	0.4	200	0.10	0.5	120	0.09	0.5	190	0.10	0.5	–	–	–	–	–	–	–	–	–
LCMR 041604-F	**T8330**	0.4	185	0.13	0.5	110	0.12	0.5	175	0.13	0.5	–	–	–	–	–	–	–	–	–
LCMR 051604-F	**T8330**	0.4	180	0.15	0.5	105	0.14	0.5	170	0.15	0.5	–	–	–	–	–	–	–	–	–
LCMR 061608-F	**T8330**	0.8	190	0.17	1.0	110	0.15	1.0	180	0.17	1.0	–	–	–	–	–	–	–	–	–
																				
			F geometry for parting-off, grooving and longitudinal turning, fine and finish machining, and continuous to slightly interrupted cuts.																	
LCMR 083008-F	**T8330**	0.8	175	0.25	1.0	105	0.23	1.0	165	0.25	1.0	–	–	–	–	–	–	–	–	–

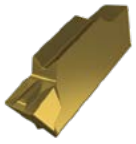
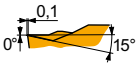
LCMR 16 - M

PRAMET

	CW [mm]	CWTOLL [mm]	CWTOLU [mm]	INSL [mm]
0316	3.00	-0.05	0.05	16.4
0416	4.00	-0.05	0.05	16.4
0516	5.00	-0.05	0.05	16.4
0616	6.00	-0.05	0.05	16.4

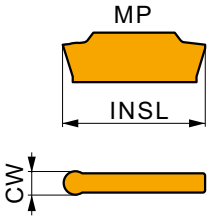


Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

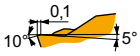
Product		RE [mm]	P vc [m/min]	P f [mm/rev]	P ap [mm]	M vc [m/min]	M f [mm/rev]	M ap [mm]	K vc [m/min]	K f [mm/rev]	K ap [mm]	N vc [m/min]	N f [mm/rev]	N ap [mm]	S vc [m/min]	S f [mm/rev]	S ap [mm]	H vc [m/min]	H f [mm/rev]	H ap [mm]
																				
			M geometry for grooving and longitudinal turning, and continuous to interrupted cuts.																	
LCMR 031604-M	**T8330**	0.4	170	0.13	1.0	100	0.12	1.0	160	0.13	1.0	–	–	–	–	–	–	30	0.15	1.0
LCMR 041604-M	**T8330**	0.4	155	0.18	1.0	90	0.16	1.0	145	0.18	1.0	–	–	–	–	–	–	30	0.15	1.0
LCMR 051604-M	**T8330**	0.4	150	0.20	1.0	90	0.18	1.0	140	0.20	1.0	–	–	–	–	–	–	30	0.15	1.0
LCMR 061608-M	**T8330**	0.8	175	0.25	1.0	105	0.23	1.0	165	0.25	1.0	–	–	–	–	–	–	35	0.15	1.0

LCMR 16 - MP

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0316	3.00	-0.05	0.05	17.4
0416	4.00	-0.05	0.05	17.5
0516	5.00	-0.05	0.05	18.1
0616	6.00	-0.05	0.05	18.3



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			MP geometry for longitudinal turning and copy profiling, and continuous to interrupted cuts.																	
LCMR 0316M0-MP	**T8330**	1.5	■ 190	0.30	0.8	◪ 110	0.27	0.8	■ 180	0.30	0.8	–	–	–	–	–	–	–	–	–
LCMR 0416M0-MP	**T8330**	2.0	■ 175	0.40	1.0	◪ 105	0.36	1.0	■ 165	0.40	1.0	–	–	–	–	–	–	–	–	–
LCMR 0516M0-MP	**T8330**	2.5	■ 170	0.45	1.0	◪ 100	0.41	1.0	■ 160	0.45	1.0	–	–	–	–	–	–	–	–	–
LCMR 0616M0-MP	**T8330**	3.0	■ 165	0.50	1.0	◪ 95	0.45	1.0	■ 155	0.50	1.0	–	–	–	–	–	–	–	–	–

GFI(RL) EXT

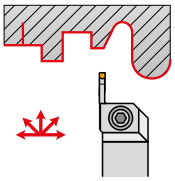
P M K N S H

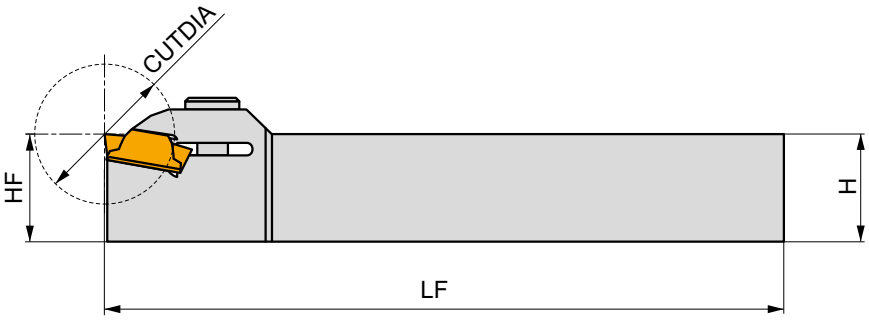
PRAMET

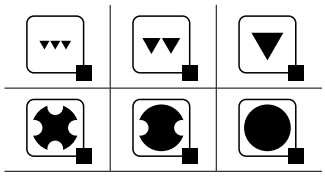
G

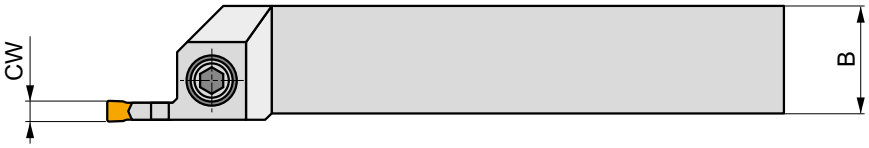
External V-Groove Top Clamp Grooving and Turning Tool for LCM. Inserts

External Right/Left hand tool holder for grooving with LCM. 0316, 0416, 0516, 0616 and 0830 inserts. Suited for parting-off up to maximum of Ø48 mm material in grooving, profiling and longitudinal turning applications. Available with shank size 16x16 up to 32x25 mm. Body treated for longer tool life.









	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CUTDIA [mm]	kg		
R	**GFIR 1616 H 03**	16	16	16	100	3.00	18	0.22	GI136	GL03
	GFIR 2020 K 03	20	20	20	125	3.00	18	0.40	GI136	GL04
	GFIR 2525 M 03	25	25	25	150	3.00	18	0.73	GI136	GL05
	GFIR 1616 H 04	16	16	16	100	4.00	24	0.22	GI137	GL03
	GFIR 2020 K 04	20	20	20	125	4.00	24	0.38	GI137	GL04
	GFIR 2525 M 04	25	25	25	150	4.00	24	0.67	GI137	GL05
	GFIR 2020 K 05	20	20	20	125	5.00	28	0.38	GI138	GL04
	GFIR 2525 M 05	25	25	25	150	5.00	28	0.70	GI138	GL05
	GFIR 2020 K 06	20	20	20	125	6.00	28	0.38	GI139	GL04
	GFIR 2525 M 06	25	25	25	150	6.00	28	0.70	GI139	GL05
	GFIR 2525 M 08	25	25	25	150	8.00	48	0.74	GI193	GL09
	GFIR 3225 P 08	32	32	25	170	8.00	48	1.03	GI193	GL09
L	**GFIL 1616 H 03**	16	16	16	100	3.00	18	0.22	GI136	GL03
	GFIL 2020 K 03	20	20	20	125	3.00	18	0.39	GI136	GL04
	GFIL 2525 M 03	25	25	25	150	3.00	18	0.73	GI136	GL05
	GFIL 1616 H 04	16	16	16	100	4.00	24	0.20	GI137	GL03
	GFIL 2020 K 04	20	20	20	125	4.00	24	0.38	GI137	GL04
	GFIL 2525 M 04	25	25	25	150	4.00	24	0.69	GI137	GL05
	GFIL 2020 K 05	20	20	20	125	5.00	28	0.38	GI138	GL04
	GFIL 2525 M 05	25	25	25	150	5.00	28	0.71	GI138	GL05
	GFIL 2020 K 06	20	20	20	125	6.00	28	0.40	GI139	GL04
	GFIL 2525 M 06	25	25	25	150	6.00	28	0.70	GI139	GL05
	GFIL 2525 M 08	25	25	25	150	8.00	48	0.75	GI193	GL09
	GFIL 3225 P 08	32	32	25	170	8.00	48	1.03	GI193	GL09

GI136		LCM. 0316..
GI137		LCM. 0416..
GI138		LCM. 0516..
GI139		LCM. 0616..
GI193		LCM. 0830..

GL03	HS 0616C	6.0	M 6	16	HXK 5
GL04	HS 0620C	6.0	M 6	20	HXK 5
GL05	HS 0625C	6.0	M 6	25	HXK 5
GL09	HSI 1020	8.0	M 10	20	HXK 8

GFM(RL) EXT

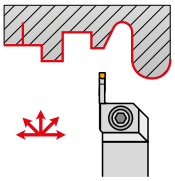
P M K N S H

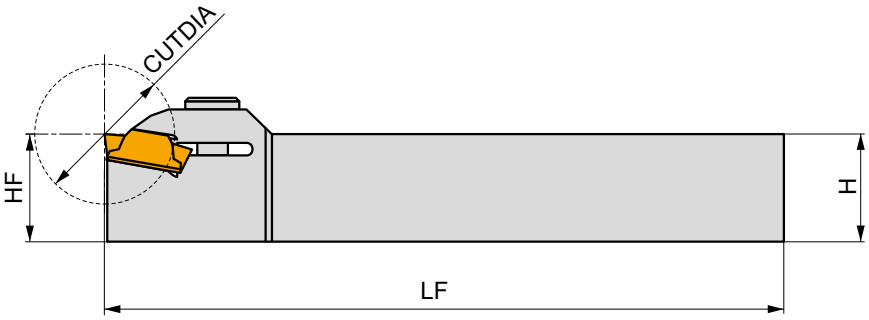
PRAMET

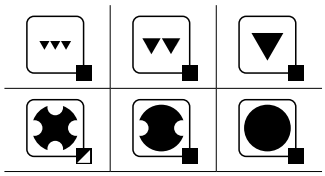
G

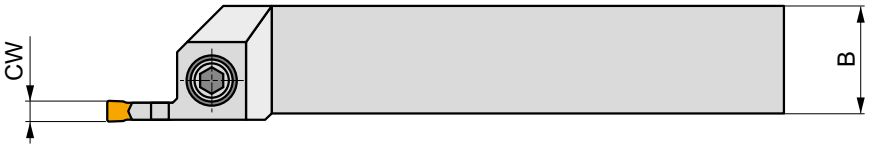
External V-Groove Top Clamp Grooving and Turning Tool for LCM. Inserts

External Right/Left hand tool holder for grooving with LCM. 0316, 0416, 0516, 0616 and 0830 inserts. Suited for parting-off up to maximum of Ø30 to Ø80 mm material in grooving, profiling and longitudinal turning applications. Available with shank size 20x20 up to 32x25 mm. Body treated for longer tool life.









	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CUTDIA [mm]	kg		
R	**GFMR 2020 K 0316**	20	20	20	125	3.00	30	0.37	GI136	GL04
	GFMR 2525 M 0316	25	25	25	150	3.00	30	0.68	GI136	GL04
	GFMR 2020 K 0416	20	20	20	125	4.00	40	0.38	GI137	GL04
	GFMR 2525 M 0416	25	25	25	150	4.00	40	0.68	GI137	GL04
	GFMR 2525 M 0516	25	25	25	150	5.00	50	0.67	GI138	GL04
	GFMR 3225 P 0516	32	32	25	170	5.00	50	0.97	GI138	GL04
	GFMR 2525 M 0616	25	25	25	150	6.00	60	0.66	GI139	GL04
	GFMR 3225 P 0616	32	32	25	170	6.00	60	0.97	GI139	GL04
	GFMR 3225 P 0830	32	32	25	170	8.00	80	0.97	GI193	GL10
L	**GFML 2020 K 0316**	20	20	20	125	3.00	30	0.24	GI136	GL04
	GFML 2525 M 0316	25	25	25	150	3.00	30	0.70	GI136	GL04
	GFML 2020 K 0416	20	20	20	125	4.00	40	0.37	GI137	GL04
	GFML 2525 M 0416	25	25	25	150	4.00	40	0.69	GI137	GL04
	GFML 2525 M 0516	25	25	25	150	5.00	50	0.64	GI138	GL04
	GFML 3225 P 0516	32	32	25	170	5.00	50	0.97	GI138	GL04
	GFML 2525 M 0616	25	25	25	150	6.00	60	0.64	GI139	GL04
	GFML 3225 P 0616	32	32	25	170	6.00	60	0.95	GI139	GL04
	GFML 3225 P 0830	32	32	25	170	8.00	80	0.99	GI193	GL10

GI136	LCM. 0316..
GI137	LCM. 0416..
GI138	LCM. 0516..
GI139	LCM. 0616..
GI193	LCM. 0830..

		Nm			
GL04	HS 0620C	6.0	M 6	20	HXK 5
GL10	HSI 1020	8.0	M 10	20	HXK 8

XLCCN B

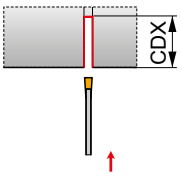
P M K N S H

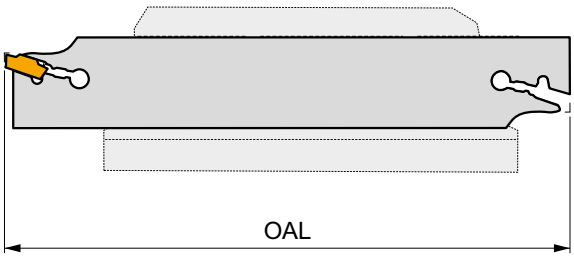
PRAMET

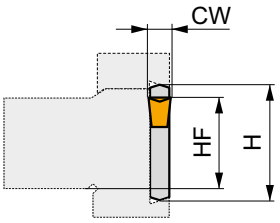
X

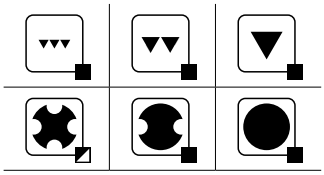
Double-Ended Parting-off Blade for LCM. Inserts

Blade for parting-off applications up to 60 mm maximum depth or Ø120 mm bar material. Suited for single or double sided LCM. inserts. Available in height of 26 or 32 mm. Can be fitted into the DU Pramet basic holders. Blade treated for longer tool life.









	Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
N	**XLCCN 2602 J 0316**	21.4	26	110	3.00	35	0.09	GI136	KV1
	XLCCN 3202 M 0316	25	32	150	3.00	50	0.13	GI136	KV1
	XLCCN 3203 M 0416	25	32	150	4.00	50	0.15	GI137	KV1
	XLCCN 3204 M 0516	25	32	150	5.00	60	0.18	GI138	KV1
	XLCCN 3205 M 0616	25	32	150	6.00	60	0.17	GI139	KV1

GI136	LCM. 0316..
GI137	LCM. 0416..
GI138	LCM. 0516..
GI139	LCM. 0616..

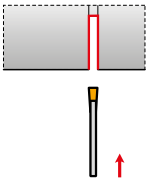
KV1	KV 5x100

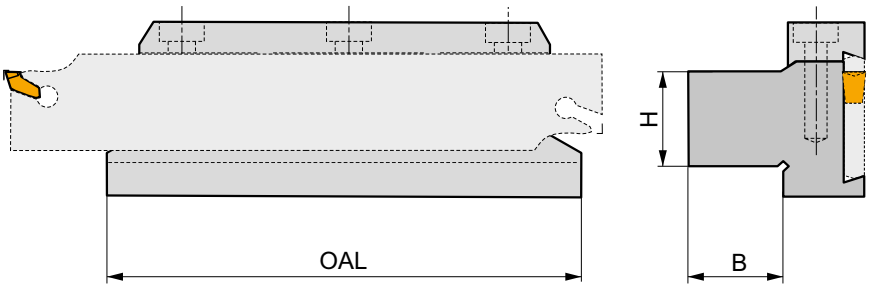
DU, D

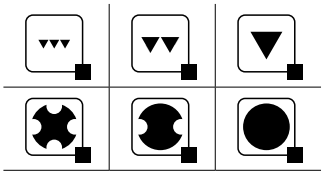
PRAMET

Tool Holder Block for Parting-off Blades

Tool holder to fit GL or XLC. blades for parting-off. Available with shank size 20x20 up to 40x40 mm. Body treated for longer tool life.







Product	H [mm]	B [mm]	LB [mm]	kg		
26-DU 2020	20	20	90	0.70	GI007	ND2
26-D 2020	20	20	100	0.82	GI007	ND2
32-DU 2523	25	23	110	1.02	GI008	ND2
32-DU 2532	25	32	110	1.10	GI008	ND2
32-DU 3229	32	29	110	1.25	GI008	ND2
32-D 2530	25	30	115	1.30	GI008	ND2
45-DU 3229	32	29	110	1.50	GI009	ND7
45-DU 4036	40	36	110	2.05	GI009	ND7
47-D 4040	40	40	150	3.88	GI091	ND3

GI007	XLC.N 26..	GL.-S26.B
GI008	XLC.N 32..	GL.-S32.B
GI009	XLC.N 45..	–
GI091	XLC.N 47..	–

		Nm			
ND2	HS 0625	6.0	M 6	25	HXK 5
ND3	HS 1030	8.0	M 10	30	HXK 8
ND7	HS 0630	6.0	M 6	30	HXK 5

XLCCN 25 BS

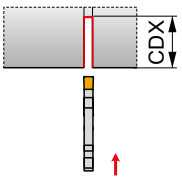
P M K N S H

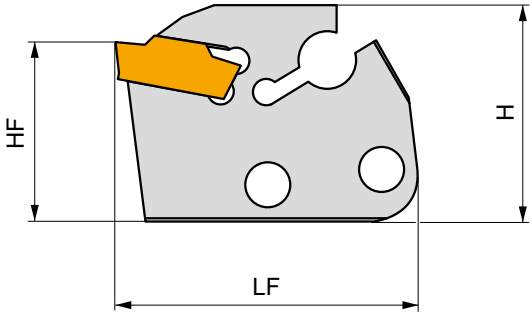
PRAMET

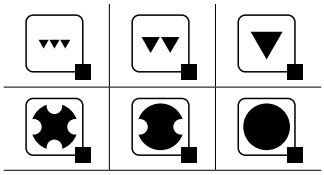
G

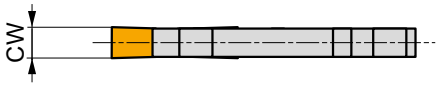
Radial Grooving Blade for Modular MS-EN Tool Holder for LCM. Inserts

Modular grooving blade for grooving with single or double-sided LCM. 0316, 0416, 0516 or 0616 inserts. Suited for grooving or parting-off (max. 25 mm cutting depth) applications. Can be fitted to MS-EN tool holder. Blades treated for longer tool life.









	Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
N	**XLCCN 250215-0316**	24	29	40	3.00	15	0.01	GI136	–
	XLCCN 250225-0316	24	29	50	3.00	25	0.02	GI136	–
	XLCCN 250315-0416	24	29	40	4.00	15	0.04	GI137	–
	XLCCN 250325-0416	24	29	50	4.00	25	0.04	GI137	–
	XLCCN 250425-0516	24	29	50	5.00	25	0.03	GI138	–
	XLCCN 250525-0616	24	29	50	6.00	25	0.04	GI139	–

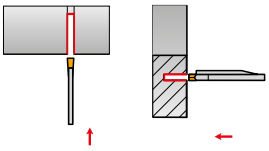
GI136	LCM. 0316..
GI137	LCM. 0416..
GI138	LCM. 0516..
GI139	LCM. 0616..

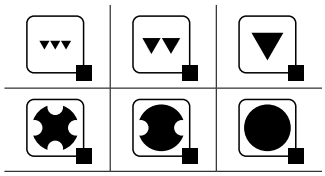
MS-EN

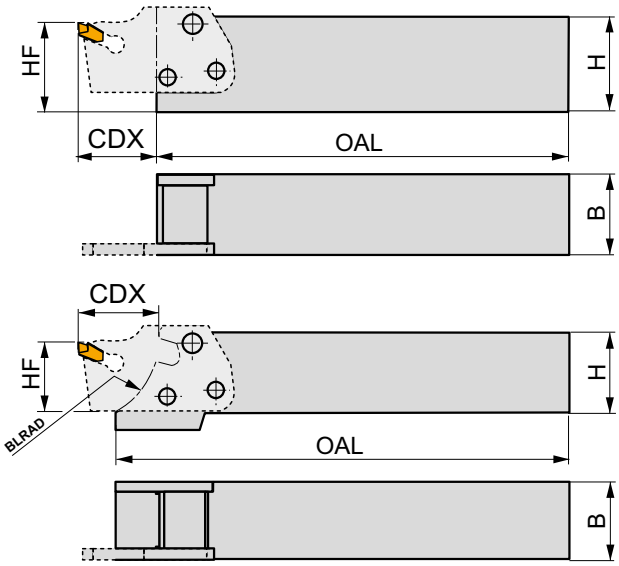
PRAMET

Modular Tool Holder for XLCCN, XLCF(NRL) or XLXFL Grooving Blade

Tool holder to fit modular grooving blades from the XLC 25 BS, XLCF(NRL) BS, XLXFL BS axial grooving blade. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.







Product	HF [mm]	H [mm]	B [mm]	OAL [mm]	CDX [mm]	BLRAD [mm]	kg		
MS-EN-1212 F	12	12	12	75	15	–	0.13	GI006	ND4
MS-EN-1616 H	16	16	16	90	15	–	0.21	GI006	ND4
MS-EN-2020 K	20	20	20	115	15	–	0.23	GI003	ND5
MS-EN-2020 KS	20	20	20	129	15	25	0.42	GI060	ND5
MS-EN-2525 M	25	25	25	140	15	–	0.65	GI003	ND5
MS-EN-2525 MS	25	25	25	153	15	25	0.74	GI060	ND5
MS-EN-3225 P	32	32	25	160	15	–	0.95	GI003	ND5
MS-EN-3225 PS	32	32	25	174	15	25	1.00	GI060	ND5

GI003	XLC.. 25..15...	XLXFL 25…	XLC.. 25..25…
GI006	XLCF. 16..15…	XLCF. 16..20…	–
GI060	XLC.. 25..15…	XLC.. 25..25…	–

		Nm				Nm			
ND4	US 4011-T15P	3.5	M 4	10.6	–	–	–	–	FLAG T15P
ND5	US 45013-T20P	5.0	M 5	13	US 46017-T20P	5.0	M6	17	FLAG T15P

ND4 =3 x US 4011-T15P; ND5=2 x US 45013-T20P

GFIL-L AXIAL

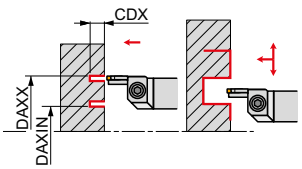
P M K N S H

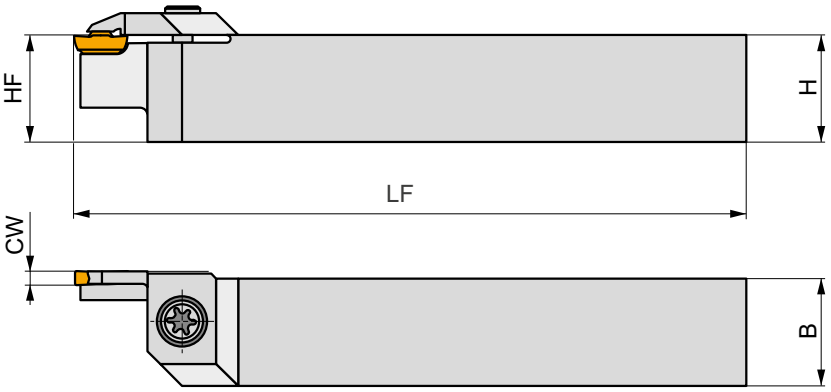
PRAMET

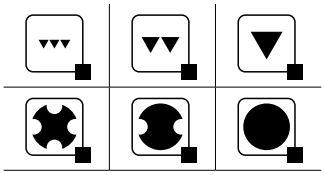
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications with maximum depth of cut 9 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	**GFIL 2525 M 0313L 030017**	25	25	25	150	3.00	9	17	30	0.64	GI143	GL02
	GFIL 2525 M 0313L 039024	25	25	25	150	3.00	9	24	39	0.66	GI143	GL07
	GFIL 2525 M 0313L 050033	25	25	25	150	3.00	9	33	50	0.67	GI143	GL07
	GFIL 2525 M 0313L 060043	25	25	25	150	3.00	9	43	60	0.67	GI143	GL07
	GFIL 2525 M 0313L 076053	25	25	25	150	3.00	9	53	76	0.67	GI143	GL07
	GFIL 2525 M 0316L 100070	25	25	25	150	3.00	9	70	100	0.69	GI136	GL07
	GFIL 2525 M 0316L 130090	25	25	25	150	3.00	9	90	130	0.70	GI136	GL07
	GFIL 2525 M 0316L 170110	25	25	25	150	3.00	9	110	170	0.71	GI136	GL07

GI136	LCM. 0316..
GI143	LCM. 0313..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GFIL-R AXIAL

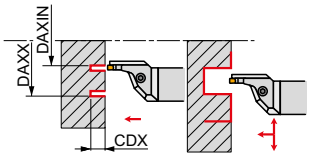
P M K N S H

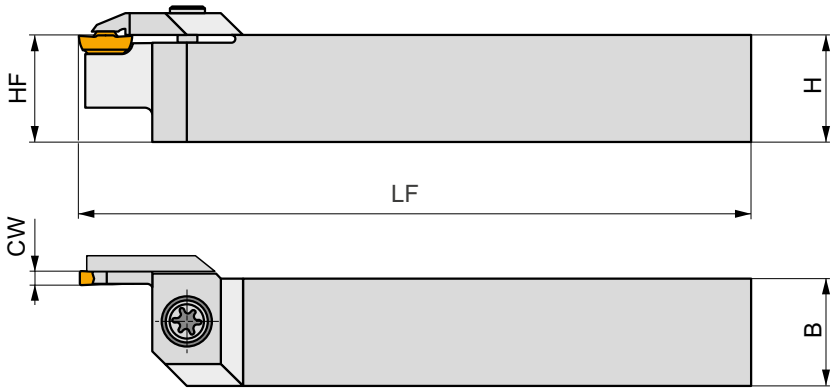
PRAMET

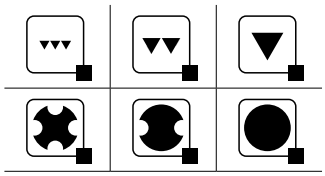
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 or 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0313, 0316, 0413 or 0416 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 12 mm. Available with shank size 25x25. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
	GFIL 2525 M 03R 030017-A	25	25	25	150	3.00	9	17	30	0.69	GI143	GL07
	GFIL 2525 M 03R 039024-A	25	25	25	150	3.00	9	24	39	0.69	GI143	GL07
	GFIL 2525 M 03R 050033-A	25	25	25	150	3.00	9	33	50	0.72	GI143	GL07
	GFIL 2525 M 03R 060043-A	25	25	25	150	3.00	9	43	60	0.69	GI143	GL07
	GFIL 2525 M 03R 076053-A	25	25	25	150	3.00	9	53	76	0.68	GI143	GL07
	GFIL 2525 M 03R 100070-A	25	25	25	150	3.00	9	70	100	0.79	GI136	GL08
	GFIL 2525 M 03R 130090-A	25	25	25	150	3.00	9	90	130	0.73	GI136	GL08
L	GFIL 2525 M 03R 170110-A	25	25	25	150	3.00	9	110	170	0.76	GI136	GL08
	GFIL 2525 M 04R 030017-A	25	25	25	150	3.00	9	17	30	0.71	GI170	GL07
	GFIL 2525 M 04R 034021-A	25	25	25	150	4.00	9	21	34	0.69	GI170	GL07
	GFIL 2525 M 04R 040026-A	25	25	25	150	4.00	11	26	40	0.00	GI170	GL07
	GFIL 2525 M 04R 050032-A	25	25	25	150	4.00	11	32	50	0.68	GI170	GL07
	GFIL 2525 M 04R 060042-A	25	25	25	150	4.00	11	42	60	0.66	GI170	GL07
	GFIL 2525 M 04R 075052-A	25	25	25	150	4.00	11	52	75	0.67	GI170	GL07
	GFIL 2525 M 04R 100070-A	25	25	25	150	4.00	12	70	100	0.75	GI137	GL08
	GFIL 2525 M 04R 130090-A	25	25	25	150	4.00	12	90	130	0.75	GI137	GL08
L	GFIL 2525 M 04R 170110-A	25	25	25	150	4.00	12	110	170	0.75	GI137	GL08
	GFIL 2525 M 04R 230140-A	25	25	25	150	4.00	12	140	230	0.78	GI137	GL08

GI136	LCM. 0316..
GI137	LCM. 0416..
GI143	LCM. 0313..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFIR-L AXIAL

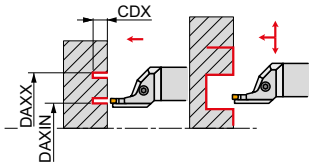
P M K N S H

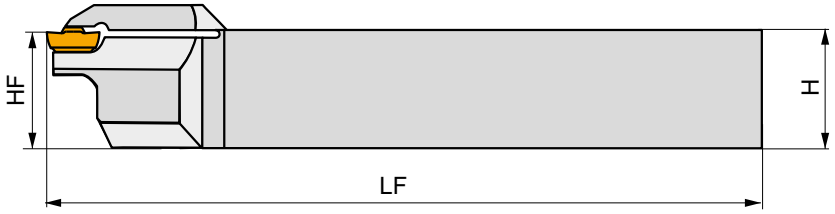
PRAMET

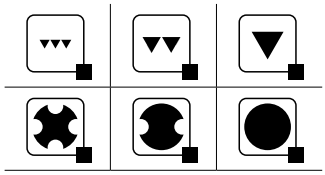
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 or 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0313, 0316, 0413 or 0416 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 12 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
	GFIR 2525 M 03L 030017-A	25	25	25	150	3.00	9	17	30	0.65	GI143	GL07
	GFIR 2525 M 03L 039024-A	25	25	25	150	3.00	9	24	39	0.68	GI143	GL07
	GFIR 2525 M 03L 050033-A	25	25	25	150	3.00	9	33	50	0.65	GI143	GL07
	GFIR 2525 M 03L 060043-A	25	25	25	150	3.00	9	43	60	0.68	GI143	GL07
	GFIR 2525 M 03L 076053-A	25	25	25	150	3.00	9	53	76	0.69	GI143	GL07
	GFIR 2525 M 03L 100070-A	25	25	25	150	3.00	9	70	100	0.75	GI136	GL08
	GFIR 2525 M 03L 130090-A	25	25	25	150	3.00	9	90	130	0.76	GI136	GL08
R	GFIR 2525 M 03L 170110-A	25	25	25	150	3.00	9	110	170	0.68	GI136	GL08
	GFIR 2525 M 04L 030017-A	25	25	25	150	3.00	9	17	30	0.68	GI170	GL07
	GFIR 2525 M 04L 034021-A	25	25	25	150	4.00	9	21	34	0.68	GI170	GL07
	GFIR 2525 M 04L 040026-A	25	25	25	150	4.00	11	26	40	0.68	GI170	GL07
	GFIR 2525 M 04L 050032-A	25	25	25	150	4.00	11	32	50	0.66	GI170	GL07
	GFIR 2525 M 04L 060042-A	25	25	25	150	4.00	11	42	60	0.69	GI170	GL07
	GFIR 2525 M 04L 075052-A	25	25	25	150	4.00	11	52	75	0.67	GI170	GL07
	GFIR 2525 M 04L 100070-A	25	25	25	150	4.00	12	70	100	0.72	GI137	GL08
	GFIR 2525 M 04L 130090-A	25	25	25	150	4.00	12	90	130	0.75	GI137	GL08
R	GFIR 2525 M 04L 170110-A	25	25	25	150	4.00	12	110	170	0.72	GI137	GL08
	GFIR 2525 M 04L 230140-A	25	25	25	150	4.00	12	140	230	0.79	GI137	GL08

GI136	LCM. 0316..
GI137	LCM. 0416..
GI143	LCM. 0313..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFIR-R AXIAL

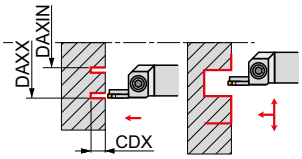
P M K N S H

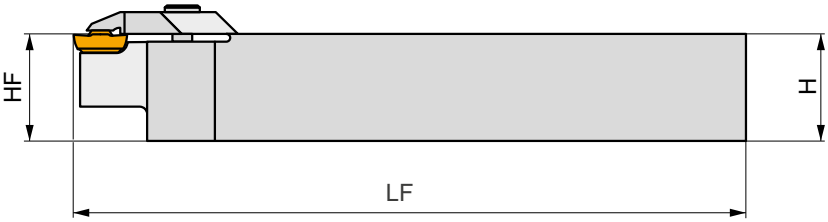
PRAMET

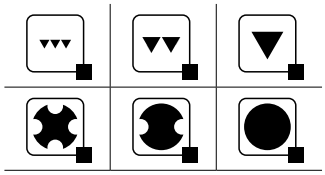
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications, with maximum depth of cut 9 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	**GFIR 2525 M 0313R 030017**	25	25	25	150	3.00	9	17	30	0.65	GI143	GL02
	GFIR 2525 M 0313R 039024	25	25	25	150	3.00	9	24	39	0.66	GI143	GL07
	GFIR 2525 M 0313R 050033	25	25	25	150	3.00	9	33	50	0.68	GI143	GL07
	GFIR 2525 M 0313R 060043	25	25	25	150	3.00	9	43	60	0.68	GI143	GL07
	GFIR 2525 M 0313R 076053	25	25	25	150	3.00	9	53	76	0.68	GI143	GL07
	GFIR 2525 M 0316R 100070	25	25	25	150	3.00	9	70	100	0.69	GI136	GL07
	GFIR 2525 M 0316R 130090	25	25	25	150	3.00	9	90	130	0.70	GI136	GL07
	GFIR 2525 M 0316R 170110	25	25	25	150	3.00	9	110	170	0.70	GI136	GL07

GI136	LCM. 0316..
GI143	LCM. 0313..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GFML-L AXIAL

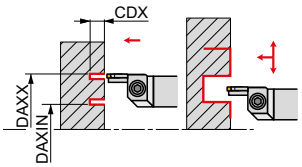
P M K N S H

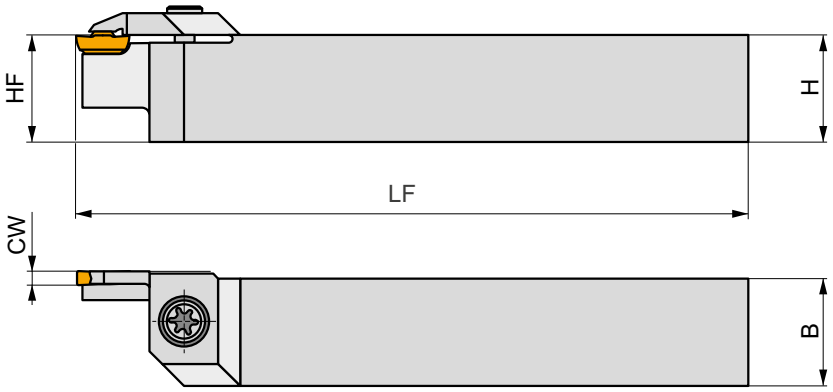
PRAMET

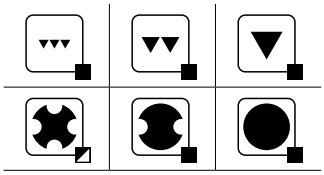
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	**GFML 2525 M 0413L 030017**	25	25	25	150	4.00	20	17	30	0.62	GI170	GL02
	GFML 2525 M 0413L 034021	25	25	25	150	4.00	20	21	34	0.63	GI170	GL07
	GFML 2525 M 0413L 040026	25	25	25	150	4.00	20	26	40	0.65	GI170	GL07
	GFML 2525 M 0413L 050032	25	25	25	150	4.00	20	32	50	0.64	GI170	GL07
	GFML 2525 M 0413L 060042	25	25	25	150	4.00	20	42	60	0.65	GI170	GL07
	GFML 2525 M 0413L 075052	25	25	25	150	4.00	20	52	75	0.66	GI170	GL07
	GFML 2525 M 0416L 100070	25	25	25	150	4.00	20	70	100	0.66	GI137	GL07
	GFML 2525 M 0416L 130090	25	25	25	150	4.00	20	90	130	0.67	GI137	GL07
	GFML 2525 M 0416L 170110	25	25	25	150	4.00	20	110	170	0.67	GI137	GL07
	GFML 2525 M 0416L 230140	25	25	25	150	4.00	20	140	230	0.67	GI137	GL07

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GFML-R AXIAL

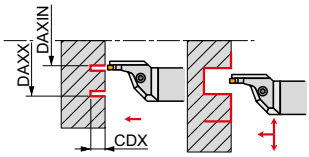
P M K N S H

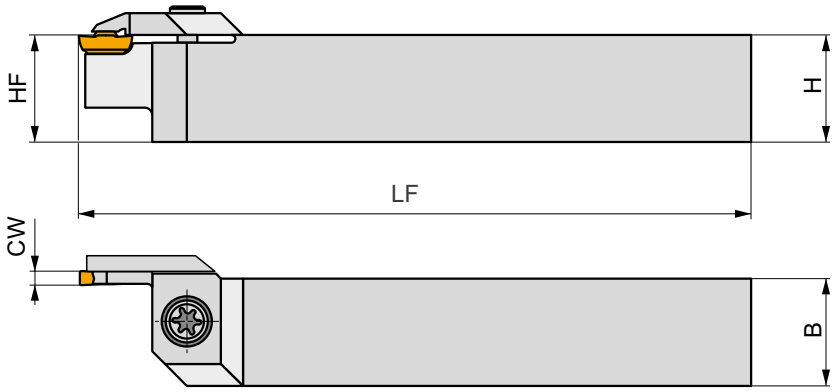
PRAMET

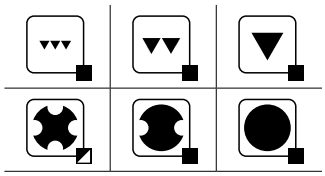
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External left-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	**GFML 2525 M 0413R 030017**	25	25	25	150	4.00	20	17	30	0.68	GI170	GL07
	GFML 2525 M 0413R 034021	25	25	25	150	4.00	20	21	34	0.69	GI170	GL07
	GFML 2525 M 0413R 040026	25	25	25	150	4.00	20	26	40	0.69	GI170	GL07
	GFML 2525 M 0413R 050032	25	25	25	150	4.00	20	32	50	0.68	GI170	GL07
	GFML 2525 M 0413R 060042	25	25	25	150	4.00	20	42	60	0.69	GI170	GL07
	GFML 2525 M 0413R 075052	25	25	25	150	4.00	20	52	75	0.69	GI170	GL07
	GFML 2525 M 0416R 100070	25	25	25	150	4.00	20	70	100	0.80	GI137	GL08
	GFML 2525 M 0416R 130090	25	25	25	150	4.00	20	90	130	0.78	GI137	GL08
	GFML 2525 M 0416R 170110	25	25	25	150	4.00	20	110	170	0.78	GI137	GL08
	GFML 2525 M 0416R 230140	25	25	25	150	4.00	20	140	230	0.78	GI137	GL08

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

GFMR-L AXIAL

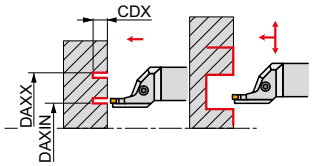
P M K N S H

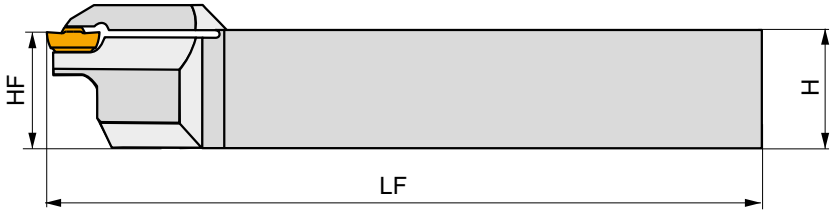
PRAMET

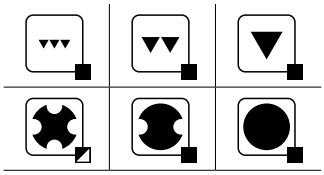
G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	**GFMR 2525 M 0413L 030017**	25	25	25	150	4.00	20	17	30	0.70	GI170	GL07
	GFMR 2525 M 0413L 034021	25	25	25	150	4.00	20	21	34	0.66	GI170	GL07
	GFMR 2525 M 0413L 040026	25	25	25	150	4.00	20	26	40	0.66	GI170	GL07
	GFMR 2525 M 0413L 050032	25	25	25	150	4.00	20	32	50	0.68	GI170	GL07
	GFMR 2525 M 0413L 060042	25	25	25	150	4.00	20	42	60	0.66	GI170	GL07
	GFMR 2525 M 0413L 075052	25	25	25	150	4.00	20	52	75	0.69	GI170	GL07
	GFMR 2525 M 0416L 100070	25	25	25	150	4.00	20	70	100	0.88	GI137	GL08
	GFMR 2525 M 0416L 130090	25	25	25	150	4.00	20	90	130	0.78	GI137	GL08
	GFMR 2525 M 0416L 170110	25	25	25	150	4.00	20	110	170	0.81	GI137	GL08
	GFMR 2525 M 0416L 230140	25	25	25	150	4.00	20	140	230	0.78	GI137	GL08

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm				
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P	–
GL08	US 6020-T25P	6.0	M 6	20.2	–	SDR T25P

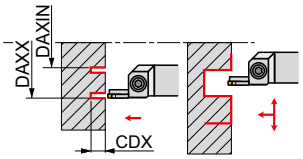
GFMR-R AXIAL

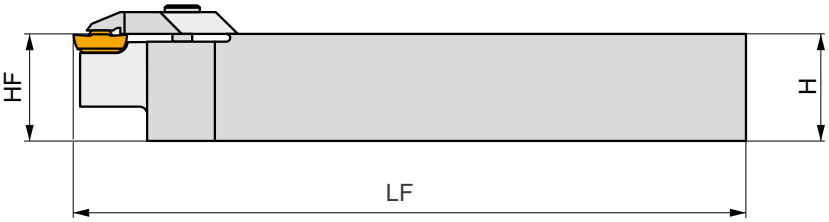
P M K N S H

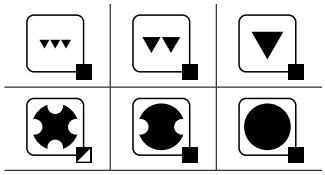
PRAMET G

External Axial V-Groove Top Clamp Grooving Tool for LCM. 04 Inserts

External right-hand axial tool holder for grooving with single or double-sided LCM. 0413 or 0416 inserts. Suited for deep axial grooving, axial profiling or groove widening Ø17 up to Ø230 mm applications, with maximum depth of cut 20 mm. Available with shank size 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	**GFMR 2525 M 0413R 030017**	25	25	25	150	4.00	20	17	30	0.62	GI170	GL02
	GFMR 2525 M 0413R 034021	25	25	25	150	4.00	20	21	34	0.63	GI170	GL07
	GFMR 2525 M 0413R 040026	25	25	25	150	4.00	20	26	40	0.64	GI170	GL07
	GFMR 2525 M 0413R 050032	25	25	25	150	4.00	20	32	50	0.63	GI170	GL07
	GFMR 2525 M 0413R 060042	25	25	25	150	4.00	20	42	60	0.64	GI170	GL07
	GFMR 2525 M 0413R 075052	25	25	25	150	4.00	20	52	75	0.67	GI170	GL07
	GFMR 2525 M 0416R 100070	25	25	25	150	4.00	20	70	100	0.67	GI137	GL07
	GFMR 2525 M 0416R 130090	25	25	25	150	4.00	20	90	130	0.66	GI137	GL07
	GFMR 2525 M 0416R 170110	25	25	25	150	4.00	20	110	170	0.67	GI137	GL07
	GFMR 2525 M 0416R 230140	25	25	25	150	4.00	20	140	230	0.68	GI137	GL07

GI137	LCM. 0416..
GI170	LCM. 0413..

		Nm			
GL02	US 5015-T20P	5.0	M 5	15	FLAG T20P
GL07	US 5018-T20P	5.0	M 5	18.2	FLAG T20P

GGI(RL)-90 AXIAL

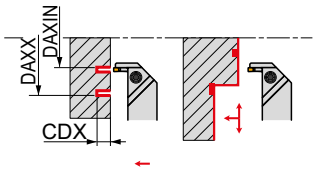
P M K N S H

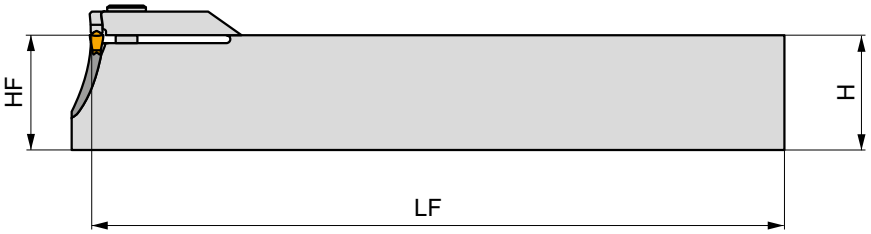
PRAMET

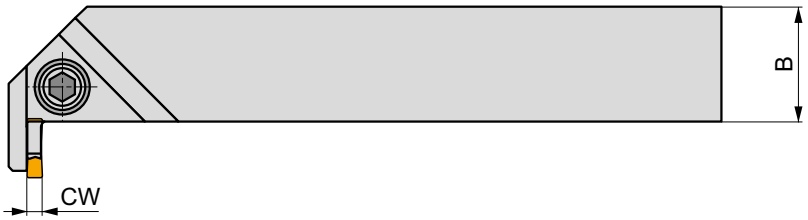
G

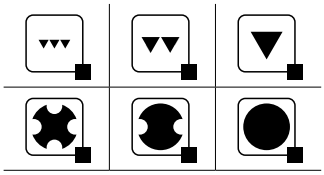
External Axial 90° V-Groove Top Clamp Grooving Tool for LCM. 03 Inserts

External Right/Left hand axial 90° tool holder for grooving with single or double-sided LCM. 0313 or 0316 inserts. Suited for axial grooving, axial profiling or groove widening Ø17 up to Ø170 mm applications, with maximum depth of cut 11 mm. Available with shank size 25x25 mm. Body treated for longer tool life.









	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
R	GGIR 2525 M 03R 030017	25	25	25	150	3.00	9.5	17	30	0.75	GI143	GL01
	GGIR 2525 M 03R 039024	25	25	25	150	3.00	9.5	24	39	0.78	GI143	GL01
	GGIR 2525 M 03R 050033	25	25	25	150	3.00	11	33	50	0.75	GI143	GL01
	GGIR 2525 M 03R 060043	25	25	25	150	3.00	11	43	60	0.78	GI143	GL01
	GGIR 2525 M 03R 076053	25	25	25	150	3.00	11	53	76	0.75	GI143	GL01
	GGIR 2525 M 03R 100070	25	25	25	150	3.00	9	70	100	0.78	GI136	GL04
	GGIR 2525 M 03R 130090	25	25	25	150	3.00	9	90	130	0.73	GI136	GL04
	GGIR 2525 M 03R 170110	25	25	25	150	3.00	9	110	170	0.76	GI136	GL04
L	GGIL 2525 M 03L 030017	25	25	25	150	3.00	9.5	17	30	0.75	GI143	GL01
	GGIL 2525 M 03L 039024	25	25	25	150	3.00	9.5	24	39	0.25	GI143	GL01
	GGIL 2525 M 03L 050033	25	25	25	150	3.00	11	33	50	0.75	GI143	GL01
	GGIL 2525 M 03L 060043	25	25	25	150	3.00	11	43	60	0.75	GI143	GL01
	GGIL 2525 M 03L 076053	25	25	25	150	3.00	11	53	76	0.75	GI143	GL01
	GGIL 2525 M 03L 100070	25	25	25	150	3.00	9	70	100	0.77	GI136	GL04
	GGIL 2525 M 03L 130090	25	25	25	150	3.00	9	90	130	0.77	GI136	GL04
	GGIL 2525 M 03L 170110	25	25	25	150	3.00	9	110	170	0.76	GI136	GL04

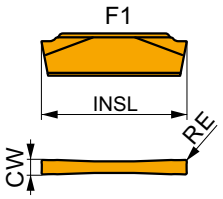
GI136	LCM. 0316..
GI143	LCM. 0313..

GL01	HS 0520C	5.0	M 5	20	HXK 4
GL04	HS 0620C	6.0	M 6	20	HXK 5

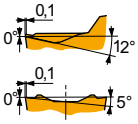
LCMF 20 - F1

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0220	2.00	-0.03	0.03	19.5



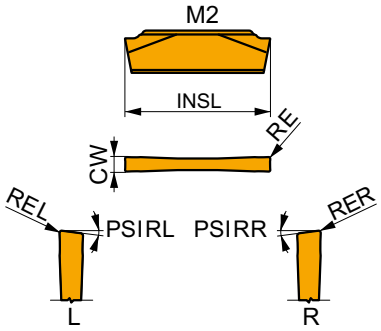
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
																
																
F1 geometry for parting-off and grooving, fine and finish machining, and continuous to slightly interrupted cuts.																
LCMF 022002-F1	**T8330**	0.2	205	0.09	120	0.08	190	0.09	–	–	–	–	–	–	–	–

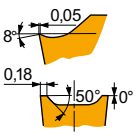
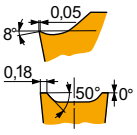
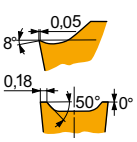
LCMF 20 - M2

PRAMET

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0220	2.00	-0.03	0.03	19.5

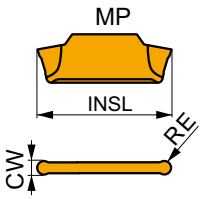


Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

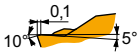
Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
																
																
M2 geometry for parting-off and grooving, fine and finish machining, and continuous to slightly interrupted cuts.																
LCMF 022002-M2	**T8330**	0.2	180	0.12	105	0.11	170	0.12	–	–	–	–	–	–	–	–
																
R-M2 geometry, with right-handed design, for parting-off, and continuous to slightly interrupted cuts.																
LCMF 022002R6-M2	**T8330**	0.2	130	0.12	75	0.11	120	0.12	–	–	–	–	–	–	6	–
																
L-M2 geometry, with left-handed design, for parting-off and continuous to slightly interrupted cuts.																
LCMF 022002L6-M2	**T8330**	0.2	130	0.12	75	0.11	120	0.12	–	–	–	–	–	–	–	6

LCMF 20 - MP

	CW	CWTOLL	CWTOLU	INSL
	[mm]	[mm]	[mm]	[mm]
0220	2.00	-0.03	0.03	19.5



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
		[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]
			MP geometry for longitudinal turning and copy profiling, fine and finish machining, and continuous to interrupted cuts.																	
LCMF 0220MO-MP	**T8330**	1.0	200	0.30	0.5	120	0.27	0.5	190	0.30	0.5	–	–	–	–	–	–	–	–	–

GFK(RL) EXT

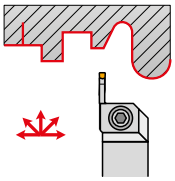
P M K N S H

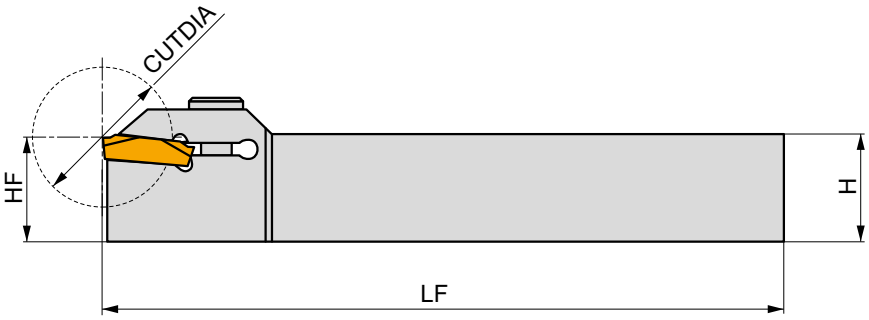
PRAMET

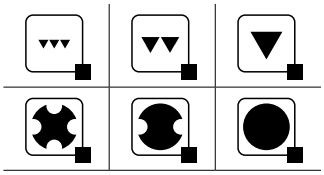
G

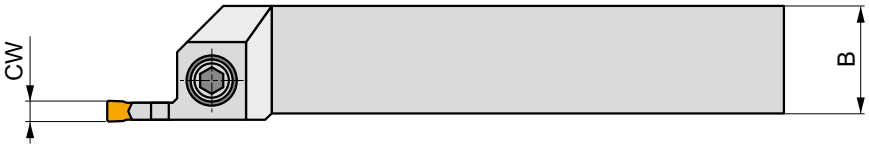
External V-Groove Top Clamp Grooving and Parting-Off tool, LCMF 0220 Ins

External Right/Left hand tool holder for grooving with LCMF 0220 inserts. Suited for parting-off, grooving and profiling applications up to 16 mm maximum depth of cut. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.









	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CUTDIA [mm]	kg		
R	**GFKR 1616 H 02**	16	16	16	100	2.00	32	0.20	GI168	GL03
	GFKR 2020 K 02	20	20	20	125	2.00	32	0.38	GI168	GL04
	GFKR 2525 M 02	25	25	25	150	2.00	32	0.68	GI168	GL05
L	**GFKL 1616 H 02**	16	16	16	100	2.00	32	0.20	GI168	GL03
	GFKL 2020 K 02	20	20	20	125	2.00	32	0.38	GI168	GL04
	GFKL 2525 M 02	25	25	25	150	2.00	32	0.68	GI168	GL05

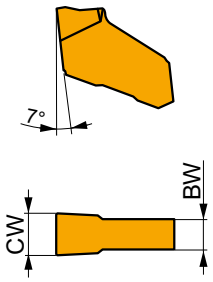
GI168	LCMF 0220..

		Nm			
GL03	HS 0616C	6.0	M 6	16	HXK 5
GL04	HS 0620C	6.0	M 6	20	HXK 5
GL05	HS 0625C	6.0	M 6	25	HXK 5

LFMX - F1

PRAMET

	CW	CWTOLL	CWTOLU	BW
	[mm]	[mm]	[mm]	[mm]
1.5	1.50	-0.03	0.03	1.30
1.6	1.60	-0.03	0.03	1.30
2.0	2.00	-0.03	0.03	1.60
3.1	3.10	-0.04	0.04	2.60
4.1	4.10	-0.04	0.04	3.60



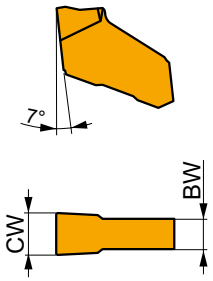
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
			E													
			F1 geometry for parting-off and grooving, and continuous cuts.													
LFMX 1.5-.16ENF1	**T8330**	0.2	130	0.08	75	0.07	120	0.08	–	–	–	–	–	–	–	–
LFMX 1.6-.16ENF1	**T8330**	0.2	130	0.08	75	0.07	120	0.08	–	–	–	–	–	–	–	–
LFMX 2.0-.16ENF1	**T8330**	0.2	130	0.08	75	0.07	120	0.08	–	–	–	–	–	–	–	–
LFMX 3.1-.20ENF1	**T8330**	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–
LFMX 4.1-.20ENF1	**T8330**	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–

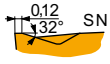
LFMX - F2

PRAMET

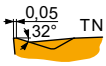
	CW	CWTOLL	CWTOLU	BW
	[mm]	[mm]	[mm]	[mm]
1.6	1.60	-0.03	0.03	1.30
2.0	2.00	-0.03	0.03	1.60
3.1	3.10	-0.04	0.04	2.60
4.1	4.10	-0.04	0.04	3.60
5.1	5.10	-0.04	0.04	4.60
6.35	6.35	-0.04	0.04	5.80



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
			U	S												
			SN-F2 geometry for parting-off and grooving, and continuous cuts.													
LFMX 1.6-.16SNF2	**T8330**	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–
LFMX 2.0-.16SNF2	**6640**	0.2	150	0.10	90	0.09	140	0.10	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–
LFMX 3.1-.20SNF2	**6640**	0.2	150	0.10	90	0.09	140	0.10	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–
LFMX 4.1-.20SNF2	**T8330**	0.2	130	0.12	75	0.11	120	0.12	–	–	–	–	–	–	–	–
LFMX 5.1-.20SNF2	**T8330**	0.2	130	0.12	75	0.11	120	0.12	–	–	–	–	–	–	–	–
LFMX 6.35-.20SNF2	**T8330**	0.2	130	0.15	75	0.14	120	0.15	–	–	–	–	–	–	–	–

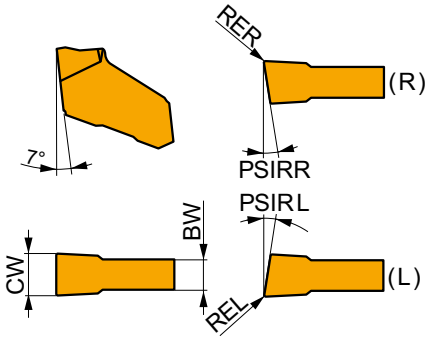
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	[°]	[°]
																
			TN-F2 geometry for parting-off and grooving, and continuous cuts.													
LFMX 3.1-.20TNF2	**6640**	0.2	150	0.10	90	0.09	140	0.10	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.10	75	0.09	120	0.10	–	–	–	–	–	–	–	–
LFMX 4.1-.20TNF2	**T8330**	0.2	130	0.12	75	0.11	120	0.12	–	–	–	–	–	–	–	–

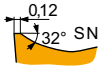
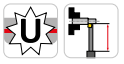
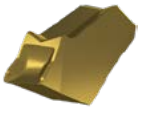
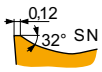
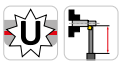
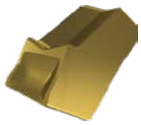
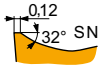
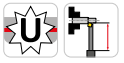
LFMX - M2

PRAMET

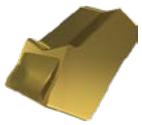
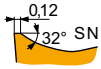
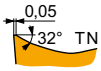
	CW [mm]	CWTOLL [mm]	CWTOLU [mm]	BW [mm]
2.0	2.00	-0.03	0.03	1.60
2.2	2.20	-0.03	0.03	1.60
3.1	3.10	-0.04	0.04	2.60
4.1	4.10	-0.04	0.04	3.60
5.1	5.10	-0.04	0.04	4.60
6.35	6.35	-0.04	0.04	5.80



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	[°]	[°]
																
			SN-M2 geometry for parting-off and grooving, and continuous to slightly interrupted cuts.													
LFMX 2.0-.16SNM2	**6640**	0.2	150	0.11	90	0.10	140	0.11	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LFMX 2.2-.16SNM2	**6640**	0.2	150	0.11	90	0.10	140	0.11	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	–	–
LFMX 3.1-.20SNM2	**6640**	0.2	150	0.15	90	0.14	140	0.15	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.15	75	0.14	120	0.15	–	–	–	–	–	–	–	–
LFMX 4.1-.20SNM2	**6640**	0.2	150	0.15	90	0.14	140	0.15	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.15	75	0.14	120	0.15	–	–	–	–	–	–	–	–
LFMX 5.1-.20SNM2	**6640**	0.2	150	0.20	90	0.18	140	0.20	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.20	75	0.18	120	0.20	–	–	–	–	–	–	–	–
LFMX 6.35-.20SNM2	**6640**	0.2	150	0.20	90	0.18	140	0.20	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.20	75	0.18	120	0.20	–	–	–	–	–	–	–	–
																
			SR-M2 geometry, with right-handed design, for parting-off, and continuous to slightly interrupted cuts.													
LFMX 2.0-.16SR12M2	**T8330**	0.2	130	0.09	75	0.08	120	0.09	–	–	–	–	–	–	12	–
LFMX 2.0-.16SR6M2	**T8330**	0.2	130	0.09	75	0.08	120	0.09	–	–	–	–	–	–	6	–
LFMX 3.1-.20SR8M2	**T8330**	0.2	130	0.11	75	0.10	120	0.11	–	–	–	–	–	–	8	–
LFMX 4.1-.20SR8M2	**T8330**	0.2	130	0.15	75	0.14	120	0.15	–	–	–	–	–	–	8	–
																
			M2-SL geometry, with left-handed design, for parting-off, and continuous to slightly interrupted cuts.													
LFMX 2.0-.16SL12M2	**T8330**	0.2	130	0.09	75	0.08	120	0.09	–	–	–	–	–	–	–	12
LFMX 2.0-.16SL6M2	**T8330**	0.2	130	0.09	75	0.08	120	0.09	–	–	–	–	–	–	–	6

Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P				M				K				N				S				H				PSIRR	PSIRL
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[°]	[°]
																												
M2-SL geometry, with left-handed design, for parting-off, and continuous to slightly interrupted cuts.																												
LFMX 3.1-.20SL8M2	**T8330**	0.2	130	0.11			75	0.10			120	0.11			–	–			–	–			–	–			–	8
LFMX 4.1-.20SL8M2	**T8330**	0.2	130	0.15			75	0.14			120	0.15			–	–			–	–			–	–			–	8
																												
TN-M2 geometry for parting-off and grooving, and continuous to slightly interrupted cuts.																												
LFMX 3.1-.20TNM2	**6640**	0.2	150	0.15			90	0.14			140	0.15			–	–			–	–			–	–			–	–
	T8330	0.2	130	0.15			75	0.14			120	0.15			–	–			–	–			–	–			–	–
LFMX 4.1-.20TNM2	**6640**	0.2	150	0.15			90	0.14			140	0.15			–	–			–	–			–	–			–	–
	T8330	0.2	130	0.15			75	0.14			120	0.15			–	–			–	–			–	–			–	–

XLCFN B

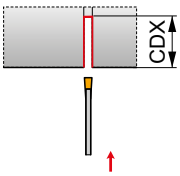
P M K N S H

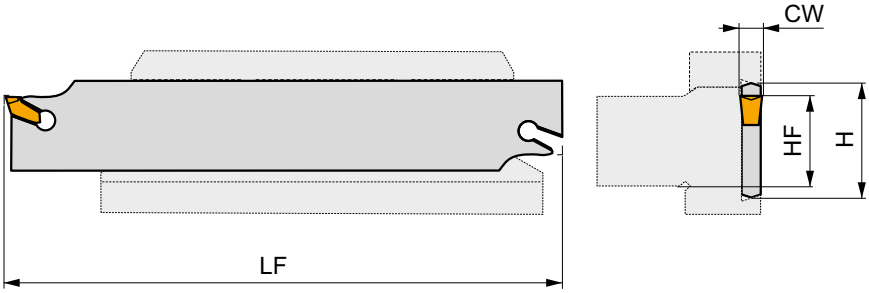
PRAMET

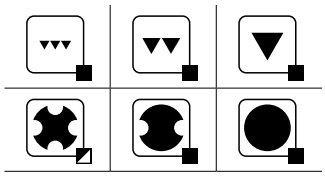
X

Double-Ended Parting-off Blade for LFMX Inserts

Blade for parting-off applications up to 80 mm maximum depth or Ø160 mm bar material. Suited for single-sided LFMX inserts. Available in heights of 26, 32 or 45 mm. Can be fitted into the DU Pramet basic holders. Blade treated for longer tool life.







	Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
N	**XLCFN 2601 J 1.60**	21.4	26	110	1.50	15	0.03	GI132	KV
	XLCFN 2601 J 2.00	21.4	26	110	2.00	25	0.04	GI061	KV
	XLCFN 2602 J 3.00	21.4	26	110	3.10	37.5	0.05	GI001	KV
	XLCFN 2603 J 4.00	21.4	26	110	4.10	40	0.06	GI002	KV
	XLCFN 3201 M 1.60	25	32	150	1.50	15	0.06	GI132	KV
	XLCFN 3201 M 2.00	25	32	150	2.00	25	0.11	GI061	KV
	XLCFN 3202 M 3.00	25	32	150	3.10	50	0.08	GI001	KV
	XLCFN 3203 M 4.00	25	32	150	4.10	50	0.11	GI002	KV
	XLCFN 3204 M 5.00	25	32	150	5.10	60	0.14	GI004	KV
	XLCFN 3205 M 6.35	25	32	150	6.35	60	0.17	GI005	KV
	XLCFN 4502 S 3.00	32	45	250	3.10	80	0.12	GI001	KV
	XLCFN 4503 S 4.00	32	45	250	4.10	80	0.19	GI002	KV
	XLCFN 4504 S 5.00	32	45	250	5.10	80	0.28	GI004	KV
	XLCFN 4505 S 6.35	32	45	250	6.35	80	0.40	GI005	KV

GI001	LFMX 3.1-.	–
GI002	LFMX 4.1-.	–
GI004	LFMX 5.1-.	–
GI005	LFMX 6.35-.	–
GI061	LFMX 2.0-.	LFMX 2.2-.
GI132	LFMX 1.5-.	LFMX 1.6-.

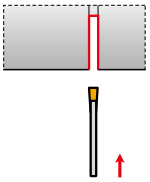
KV	KV 5x70

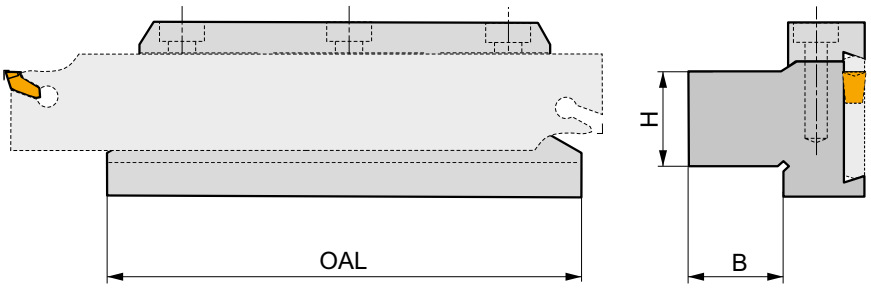
DU, D

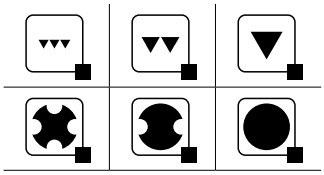
PRAMET

Tool Holder Block for Parting-off Blades

Tool holder to fit GL or XLC. blades for parting-off. Available with shank size 20x20 up to 40x40 mm. Body treated for longer tool life.







Product	H [mm]	B [mm]	LB [mm]	kg		
26-DU 2020	20	20	90	0.70	GI007	ND2
26-D 2020	20	20	100	0.82	GI007	ND2
32-DU 2523	25	23	110	1.02	GI008	ND2
32-DU 2532	25	32	110	1.10	GI008	ND2
32-DU 3229	32	29	110	1.25	GI008	ND2
32-D 2530	25	30	115	1.30	GI008	ND2
45-DU 3229	32	29	110	1.50	GI009	ND7
45-DU 4036	40	36	110	2.05	GI009	ND7
47-D 4040	40	40	150	3.88	GI091	ND3

GI007	XLC.N 26..	GL.-S26.B
GI008	XLC.N 32..	GL.-S32.B
GI009	XLC.N 45..	–
GI091	XLC.N 47..	–

		Nm			
ND2	HS 0625	6.0	M 6	25	HXK 5
ND3	HS 1030	8.0	M 10	30	HXK 8
ND7	HS 0630	6.0	M 6	30	HXK 5

XLCF(NRL) BS

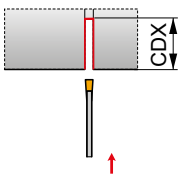
P M K N S H

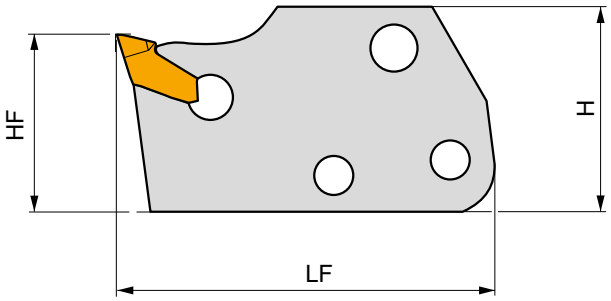
PRAMET

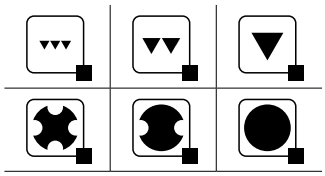
X

Radial Grooving Blade for Modular MS-EN Tool Holder for LFMX Inserts

Modular grooving blade for grooving with single-sided LFMX inserts. Suited for grooving or parting-off (max. 25 mm cutting depth) applications. Blades treated for longer tool life.







	Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
R	XLCFR 160115-1.60	12	25	35	1.50	15	0.01	GI132	KV
	XLCFR 160115-2.00	12	25	35	2.00	15	0.01	GI061	KV
	XLCFR 250115-1.60	24	29	40	1.50	15	0.01	GI132	KV
	XLCFR 250115-2.00	24	29	40	2.00	15	0.05	GI061	KV
L	XLCFL 160115-1.60	12	25	35	1.50	15	0.01	GI132	KV
	XLCFL 160115-2.00	12	25	35	2.00	15	0.04	GI061	KV
	XLCFL 250115-1.60	24	29	40	1.50	15	0.01	GI132	KV
	XLCFL 250115-2.00	24	29	40	2.00	15	0.05	GI061	KV
N	XLCFN 160215-3.00	12	25	35	3.10	15	0.01	GI001	KV
	XLCFN 160220-3.00	12	25	40	3.10	20	0.02	GI001	KV
	XLCFN 250215-3.00	24	29	40	3.10	15	0.02	GI001	KV
	XLCFN 250225-3.00	24	29	50	3.10	25	0.02	GI001	KV
	XLCFN 250315-4.00	24	29	40	4.10	15	0.02	GI002	KV
	XLCFN 250325-4.00	24	29	50	4.10	25	0.03	GI002	KV
	XLCFN 250425-5.00	24	29	50	5.10	25	0.04	GI004	KV
	XLCFN 250525-6.35	24	29	50	6.35	25	0.04	GI005	KV

GI001	LFMX 3.1-.	–
GI002	LFMX 4.1-.	–
GI004	LFMX 5.1-.	–
GI005	LFMX 6.35-.	–
GI061	LFMX 2.0-.	LFMX 2.2-.
GI132	LFMX 1.5-.	LFMX 1.6-.

KV	KV 5x70

XLXFL BS AXIAL

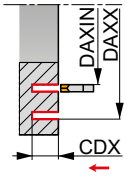
P M K N S H

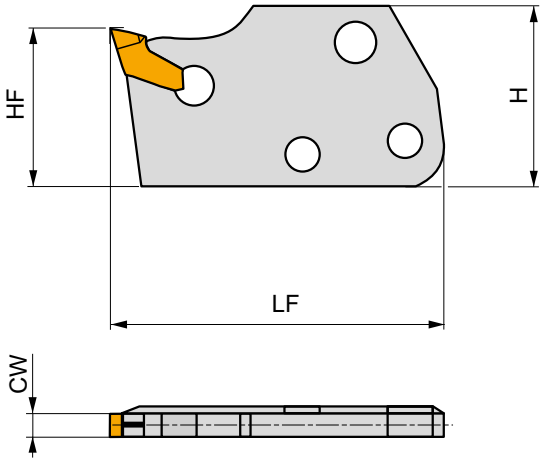
PRAMET

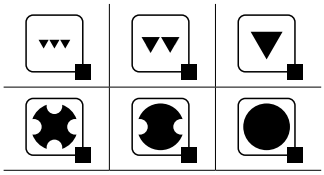
X

Axial Grooving Blade for Modular MS-EN Tool Holder for LFMX Inserts

Modular grooving blade for grooving with single-sided LFMX 3.1 inserts. Suited for axial grooving (max. 20 mm cutting depth) applications. Can be fitted to MS-EN tool holder. Blades treated for longer tool life.





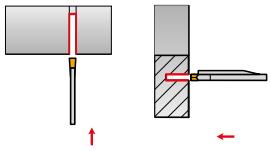


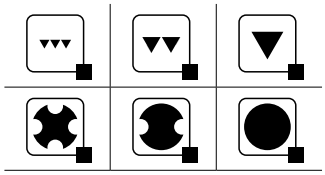
	Product	H [mm]	HF [mm]	LF [mm]	CW [mm]	CDX [mm]	DAXIN	DAXX [mm]	kg		
L	XLXFL 250220-3.00-60	29	24	46	3.10	20	60	85	0.07	GI001	KV
	XLXFL 250220-3.00-80	29	24	46	3.10	20	80	105	0.05	GI001	KV
	XLXFL 250220-3.00-100	29	24	46	3.10	20	100	155	0.03	GI001	KV
	XLXFL 250220-3.00-150	29	24	46	3.10	20	150	280	0.03	GI001	KV

GI001	LFMX 3.1-.

KV	KV 5x70

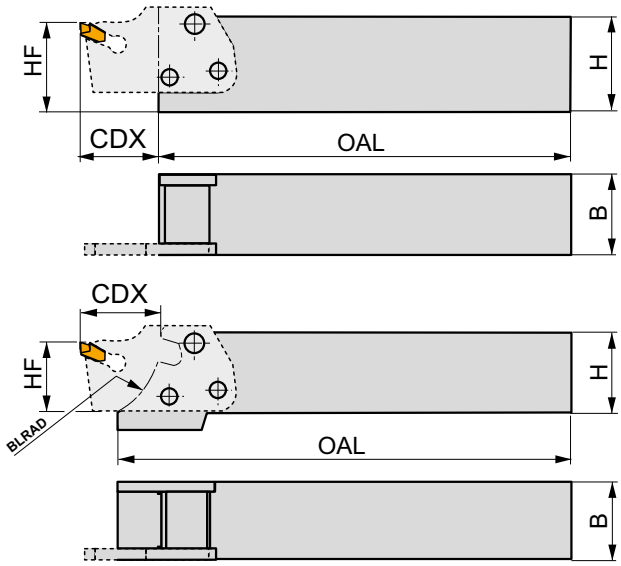
MS-EN





Modular Tool Holder for XLCCN, XLCF(NRL) or XLXFL Grooving Blade

Tool holder to fit modular grooving blades from the XLC 25 BS, XLCF(NRL) BS, XLXFL BS axial grooving blade. Available with shank size 12x12 up to 32x25 mm. Body treated for longer tool life.



Product	HF [mm]	H [mm]	B [mm]	OAL [mm]	CDX [mm]	BLRAD [mm]	kg		
MS-EN-1212 F	12	12	12	75	15	–	0.13	GI006	ND4
MS-EN-1616 H	16	16	16	90	15	–	0.21	GI006	ND4
MS-EN-2020 K	20	20	20	115	15	–	0.23	GI003	ND5
MS-EN-2020 KS	20	20	20	129	15	25	0.42	GI060	ND5
MS-EN-2525 M	25	25	25	140	15	–	0.65	GI003	ND5
MS-EN-2525 MS	25	25	25	153	15	25	0.74	GI060	ND5
MS-EN-3225 P	32	32	25	160	15	–	0.95	GI003	ND5
MS-EN-3225 PS	32	32	25	174	15	25	1.00	GI060	ND5

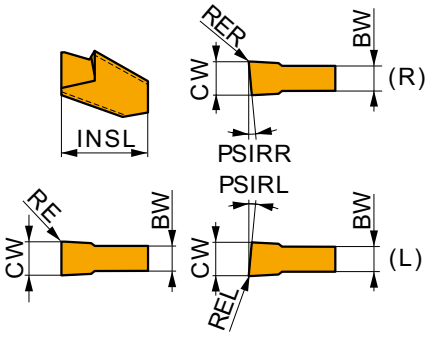
GI003	XLC.. 25..15...	XLXFL 25…	XLC.. 25..25…
GI006	XLCF. 16..15…	XLCF. 16..20…	–
GI060	XLC.. 25..15…	XLC.. 25..25…	–

		Nm				Nm			
ND4	US 4011-T15P	3.5	M 4	10.6	–	–	–	–	FLAG T15P
ND5	US 45013-T20P	5.0	M 5	13	US 46017-T20P	5.0	M6	17	FLAG T15P

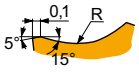
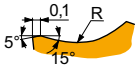
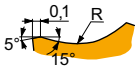
ND4 =3 x US 4011-T15P; ND5=2 x US 45013-T20P

LFUX

	CW	BW	INSL
	[mm]	[mm]	[mm]
0308	3.00	2.51	11.5
0408	4.00	3.44	11.5
0508	5.00	4.30	11.5
0608	6.00	5.30	11.5



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		PSIRR	PSIRL
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f		
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[°]	[°]
																
TN geometry for parting-off and grooving, and continuous to slightly interrupted cuts.																
LFUX 030802TN	**6640**	0.2	150	0.10	–	–	140	0.10	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.10	–	–	120	0.10	–	–	–	–	–	–	–	–
LFUX 040802TN	**6640**	0.2	150	0.12	–	–	140	0.12	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.12	–	–	120	0.12	–	–	–	–	–	–	–	–
LFUX 050802TN	**6640**	0.2	150	0.15	–	–	140	0.15	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.15	–	–	120	0.15	–	–	–	–	–	–	–	–
LFUX 060802TN	**6640**	0.2	150	0.20	–	–	140	0.20	–	–	–	–	–	–	–	–
	T8330	0.2	130	0.20	–	–	120	0.20	–	–	–	–	–	–	–	–
																
TR geometry, right-handed, for parting-off and continuous to slightly interrupted cuts.																
LFUX 030800TR	**6640**	0.2	150	0.10	–	–	140	0.10	–	–	–	–	–	–	5	–
	T8330	0.2	130	0.10	–	–	120	0.10	–	–	–	–	–	–	5	–
LFUX 040800TR	**6640**	0.2	150	0.12	–	–	140	0.12	–	–	–	–	–	–	5	–
	T8330	0.2	130	0.12	–	–	120	0.12	–	–	–	–	–	–	5	–
																
TL geometry, left-handed, for parting-off and continuous to slightly interrupted cuts.																
LFUX 030800TL	**6640**	0.2	150	0.10	–	–	140	0.10	–	–	–	–	–	–	–	5
	T8330	0.2	130	0.10	–	–	120	0.10	–	–	–	–	–	–	–	5

XLCF(RL)

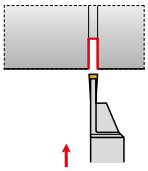
P M K N S H

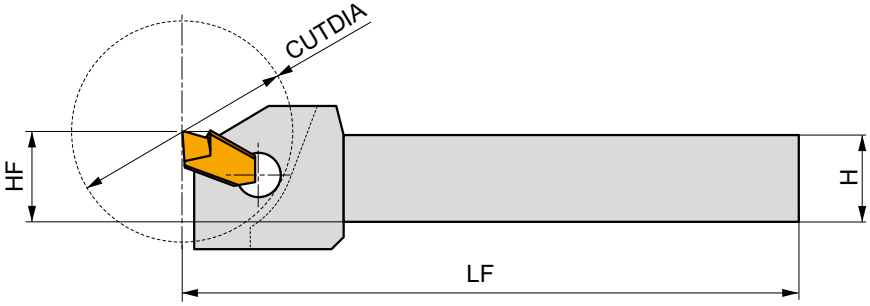
PRAMET

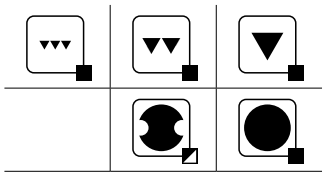
X

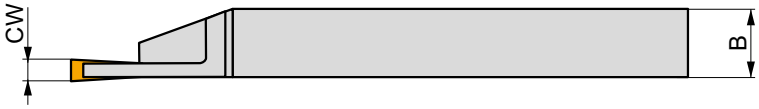
External Grooving and Parting-Off tool for LFUX Inserts

External Right/Left hand radial tool holder for grooving with single-sided LFUX 0308, 0408, 0508 or 0608 inserts. Suited for parting-off up to a maximum of Ø65 mm. Available with shank size 16x12 up to 32x25 mm. Body treated for longer tool life.









	Product	HF [mm]	H [mm]	B [mm]	LF [mm]	CW [mm]	CUTDIA [mm]	kg		
R	XLCFR 1612 H 03	16	16	12	100	3.00	40	0.14	GI018	KV
	XLCFR 2016 K 03	20	20	16	130	3.00	50	0.30	GI018	KV
	XLCFR 2520 K 03	25	25	20	130	3.00	50	0.44	GI018	KV
	XLCFR 2016 K 04	20	20	16	130	4.00	50	0.30	GI019	KV
	XLCFR 2520 K 04	25	25	20	130	4.00	50	0.43	GI019	KV
	XLCFR 2520 K 05	25	25	20	130	5.00	50	0.45	GI020	KV
	XLCFR 3225 P 05	32	32	25	170	5.00	65	0.90	GI020	KV
	XLCFR 3225 P 06	32	32	25	170	6.00	65	0.91	GI021	KV
L	XLCFL 1612 H 03	16	16	12	100	3.00	40	0.15	GI018	KV
	XLCFL 2016 K 03	20	20	16	130	3.00	50	0.30	GI018	KV
	XLCFL 2520 K 03	25	25	20	130	3.00	50	0.47	GI018	KV
	XLCFL 2016 K 04	20	20	16	130	4.00	50	0.30	GI019	KV
	XLCFL 2520 K 04	25	25	20	130	4.00	50	0.46	GI019	KV
	XLCFL 2520 K 05	25	25	20	130	5.00	50	0.50	GI020	KV
	XLCFL 3225 P 05	32	32	25	170	5.00	65	0.95	GI020	KV
	XLCFL 3225 P 06	32	32	25	170	6.00	65	0.70	GI021	KV

GI018	LFUX 0308..
GI019	LFUX 0408..
GI020	LFUX 0508..
GI021	LFUX 0608..

KV	KV 5x70

XLCFN B LFUX

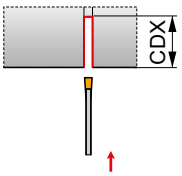
P M K N S H

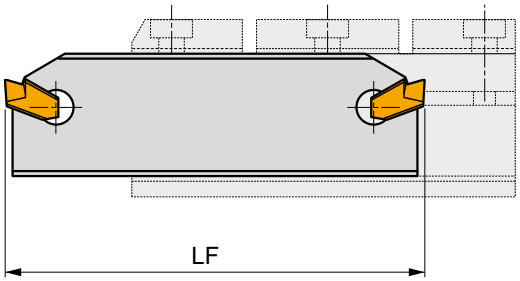
PRAMET

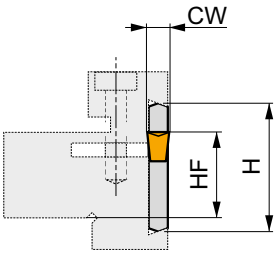
X

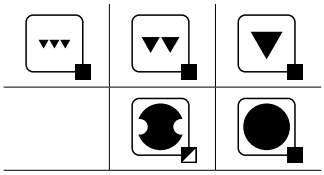
Double-Ended Parting-off Blade for LFUX Inserts

Blade for parting-off applications up to 100 mm maximum depth or Ø200 mm bar material. Suited for single sided LFUX inserts. Available in heights of 26, 32 or 47 mm. Can be fitted into the DU, D Pramet basic holders. Blade treated for longer tool life.









	Product	HF [mm]	H [mm]	LF [mm]	CW [mm]	CDX [mm]	kg		
N	**XLCFN 2603 J 03**	21.4	26	110	3.10	37.5	0.06	GI018	KV
	XLCFN 3202 M 03	25	32	150	3.10	50	0.09	GI018	KV
	XLCFN 3203 M 04	25	32	150	4.10	50	0.11	GI019	KV
	XLCFN 3204 M 05	25	32	150	5.10	60	0.14	GI020	KV
	XLCFN 4704 S 05	38	47	270	5.10	100	0.47	GI020	KV
	XLCFN 4705 S 06	38	47	270	6.10	100	0.50	GI021	KV

GI018	LFUX 0308..
GI019	LFUX 0408..
GI020	LFUX 0508..
GI021	LFUX 0608..

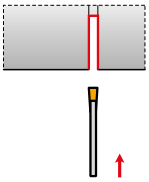
KV	KV 5x70

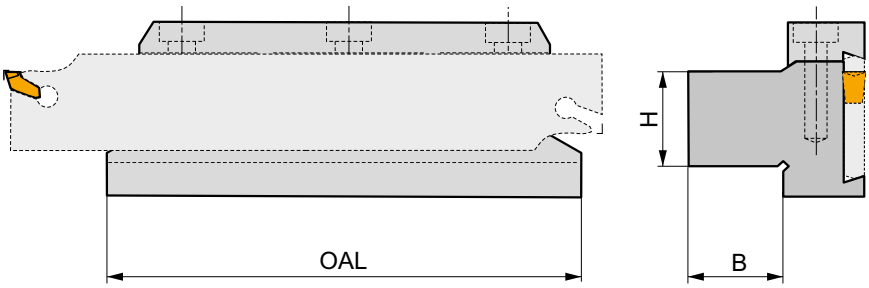
DU, D

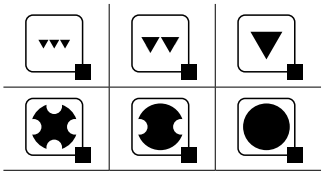
PRAMET

Tool Holder Block for Parting-off Blades

Tool holder to fit GL or XLC. blades for parting-off. Available with shank size 20x20 up to 40x40 mm. Body treated for longer tool life.







Product	H [mm]	B [mm]	LB [mm]	kg		
26-DU 2020	20	20	90	0.70	GI007	ND2
26-D 2020	20	20	100	0.82	GI007	ND2
32-DU 2523	25	23	110	1.02	GI008	ND2
32-DU 2532	25	32	110	1.10	GI008	ND2
32-DU 3229	32	29	110	1.25	GI008	ND2
32-D 2530	25	30	115	1.30	GI008	ND2
45-DU 3229	32	29	110	1.50	GI009	ND7
45-DU 4036	40	36	110	2.05	GI009	ND7
47-D 4040	40	40	150	3.88	GI091	ND3

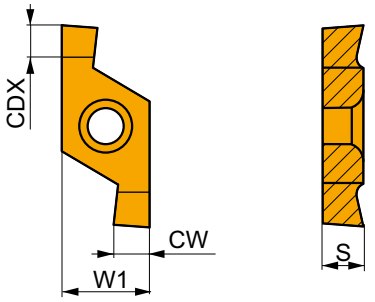
GI007	XLC.N 26..	GL.-S26.B
GI008	XLC.N 32..	GL.-S32.B
GI009	XLC.N 45..	–
GI091	XLC.N 47..	–

		Nm			
ND2	HS 0625	6.0	M 6	25	HXK 5
ND3	HS 1030	8.0	M 10	30	HXK 8
ND7	HS 0630	6.0	M 6	30	HXK 5

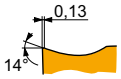
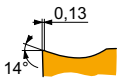
X 61

PRAMET

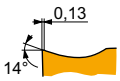
	W1	CWTOLL	CWTOLU	S
	[mm]	[mm]	[mm]	[mm]
0602	6.350	-0.03	0.03	2.33



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P vc	P f	M vc	M f	K vc	K f	N vc	N f	S vc	S f	H vc	H f	CW	CDX
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[mm]	[mm]
																
X61 R external and internal, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																
X61 0602-080 R	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.85	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	0.85	0.8
X61 0602-090 R	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.95	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	0.95	0.8
X61 0602-100 R	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	1.05	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	1.05	0.8
X61 0602-110 R	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.15	1.2
	G8330	–	140	0.06	80	0.05	130	0.06	–	–	–	–	–	–	1.15	1.2
X61 0602-130 R	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.35	1.4
	G8330	–	140	0.06	80	0.05	130	0.06	–	–	–	–	–	–	1.35	1.4
X61 0602-150 R	**6640**	–	180	0.06	105	0.05	170	0.06	–	–	–	–	–	–	1.55	1.6
	G8330	–	135	0.06	80	0.05	125	0.06	–	–	–	–	–	–	1.55	1.6
X61 0602-160 R	**6640**	–	180	0.06	105	0.05	170	0.06	–	–	–	–	–	–	1.65	1.7
	G8330	–	135	0.06	80	0.05	125	0.06	–	–	–	–	–	–	1.65	1.7
X61 0602-185 R	**6640**	–	150	0.09	90	0.08	140	0.09	–	–	–	–	–	–	1.90	2
	G8330	–	120	0.09	70	0.08	110	0.09	–	–	–	–	–	–	1.90	2
X61 0602-200 R	**G8330**	–	115	0.09	65	0.08	105	0.09	–	–	–	–	–	–	2.05	2.2
X61 0602-215 R	**6640**	–	145	0.09	85	0.08	135	0.09	–	–	–	–	–	–	2.20	2.4
	G8330	–	115	0.09	65	0.08	105	0.09	–	–	–	–	–	–	2.20	2.4
X61 0602-250 R	**G8330**	–	115	0.09	65	0.08	105	0.09	–	–	–	–	–	–	2.55	2.6
X61 0602-265 R	**6640**	–	125	0.12	75	0.11	115	0.12	–	–	–	–	–	–	2.70	2.7
	G8330	–	105	0.12	60	0.11	95	0.12	–	–	–	–	–	–	2.70	2.7
X61 0602-300 R	**6640**	–	125	0.12	75	0.11	115	0.12	–	–	–	–	–	–	3.05	3
	G8330	–	105	0.12	60	0.11	95	0.12	–	–	–	–	–	–	3.05	3
X61 0602-315 R	**6640**	–	125	0.12	75	0.11	115	0.12	–	–	–	–	–	–	3.20	3
	G8330	–	105	0.12	60	0.11	95	0.12	–	–	–	–	–	–	3.20	3
																
X61 L external and internal, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																
X61 0602-080 L	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.85	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	0.85	0.8
X61 0602-090 L	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.95	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	0.95	0.8
X61 0602-100 L	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	1.05	0.8
	G8330	–	145	0.06	85	0.05	135	0.06	–	–	–	–	–	–	1.05	0.8
X61 0602-110 L	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.15	1.2
	G8330	–	140	0.06	80	0.05	130	0.06	–	–	–	–	–	–	1.15	1.2
X61 0602-130 L	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.35	1.4
	G8330	–	140	0.06	80	0.05	130	0.06	–	–	–	–	–	–	1.35	1.4

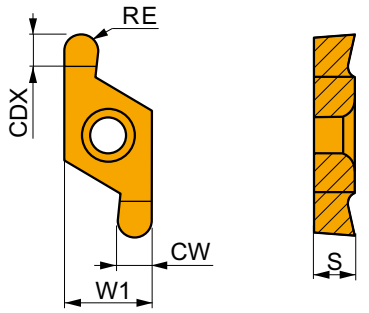
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P				M				K				N				S				H				CW	CDX
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[mm]	[mm]
																												
			X 61-L external and internal, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																									
X61 0602-150 L	**6640**	–	180		0.06		105		0.05		170		0.06		–		–		–		–		–		–		1.55	1.6
	G8330	–	135		0.06		80		0.05		125		0.06		–		–		–		–		–		–		1.55	1.6
X61 0602-160 L	**6640**	–	180		0.06		105		0.05		170		0.06		–		–		–		–		–		–		1.65	1.7
	G8330	–	135		0.06		80		0.05		125		0.06		–		–		–		–		–		–		1.65	1.7
X61 0602-185 L	**6640**	–	150		0.09		90		0.08		140		0.09		–		–		–		–		–		–		1.90	2
	G8330	–	120		0.09		70		0.08		110		0.09		–		–		–		–		–		–		1.90	2
X61 0602-200 L	**G8330**	–	115		0.09		65		0.08		105		0.09		–		–		–		–		–		–		2.05	2.2
X61 0602-215 L	**6640**	–	145		0.09		85		0.08		135		0.09		–		–		–		–		–		–		2.20	2.4
	G8330	–	115		0.09		65		0.08		105		0.09		–		–		–		–		–		–		2.20	2.4
X61 0602-250 L	**G8330**	–	115		0.09		65		0.08		105		0.09		–		–		–		–		–		–		2.55	2.6
X61 0602-265 L	**6640**	–	125		0.12		75		0.11		115		0.12		–		–		–		–		–		–		2.70	2.7
	G8330	–	105		0.12		60		0.11		95		0.12		–		–		–		–		–		–		2.70	2.7
X61 0602-300 L	**6640**	–	125		0.12		75		0.11		115		0.12		–		–		–		–		–		–		3.05	3
	G8330	–	105		0.12		60		0.11		95		0.12		–		–		–		–		–		–		3.05	3
X61 0602-315 L	**6640**	–	125		0.12		75		0.11		115		0.12		–		–		–		–		–		–		3.20	3
	G8330	–	105		0.12		60		0.11		95		0.12		–		–		–		–		–		–		3.20	3

X 61 R

PRAMET

	W1	CWTOLL	CWTOLU	S
	[mm]	[mm]	[mm]	[mm]
0602	6.350	-0.03	0.03	2.33



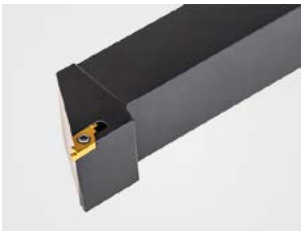
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P				M				K				N				S				H				CW	CDX
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[mm]	[mm]
																												
			X 61 R-R external and internal, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																									
X61 0602-R100 R	**6640**	1.0	170		0.06		100		0.05		160		0.06		–		–		–		–		–		–		2.09	3
	G8330	1.0	130		0.06		75		0.05		120		0.06		–		–		–		–		–		–		2.09	3
X61 0602-R150 R	**6640**	1.5	170		0.06		100		0.05		160		0.06		–		–		–		–		–		–		3.09	3
	G8330	1.5	130		0.06		75		0.05		120		0.06		–		–		–		–		–		–		3.09	3
																												
			X 61 R-L external and internal, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																									
X61 0602-R100 L	**6640**	1.0	170		0.06		100		0.05		160		0.06		–		–		–		–		–		–		2.09	3
	G8330	1.0	130		0.06		75		0.05		120		0.06		–		–		–		–		–		–		2.09	3
X61 0602-R150 L	**6640**	1.5	170		0.06		100		0.05		160		0.06		–		–		–		–		–		–		3.09	3
	G8330	1.5	130		0.06		75		0.05		120		0.06		–		–		–		–		–		–		3.09	3

P61(RL) EXT

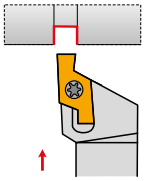
P M K N S

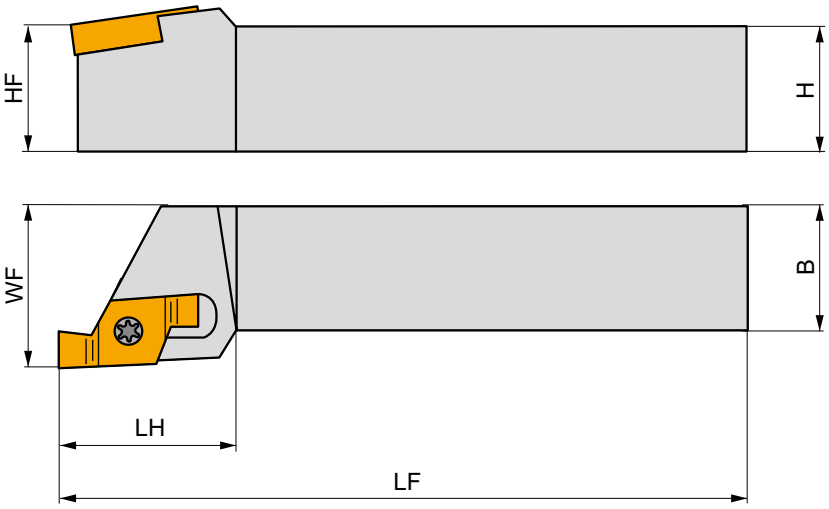
PRAMET S

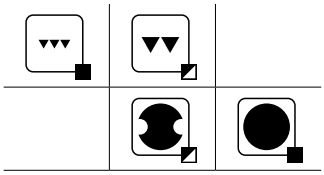


External Grooving Tool Holder for X61 Circlips and O-Ring Inserts

External Right/Left hand radial tool holder for grooving with X61 double-sided circlip or O-ring inserts. Gives smooth cutting action for high tolerated dimensions. Available with shank size 16x16 up to 25x25 mm. Body treated for longer tool life.







	Product	HF [mm]	H [mm]	B [mm]	WF [mm]	LF [mm]	LH [mm]	kg		
R	P61.SFR-1616H-06	16	16	16	20	100	21	0.23	GI332	SV11
	P61.SFR-2020K-06	20	20	20	25	125	25	0.40	GI332	SV11
	P61.SFR-2525M-06	25	25	25	32	150	32	0.73	GI332	SV11
L	P61.SFL-1616H-06	16	16	16	20	100	21	0.23	GI332	SV11
	P61.SFL-2020K-06	20	20	20	25	125	25	0.42	GI332	SV11
	P61.SFL-2525M-06	25	25	25	32	150	32	0.73	GI332	SV11

GI332	X61 0602..

		Nm			
SV11	US 2003-T07P	0.8	M 2.5	6.5	FLAG T07P

P61(RL) INT

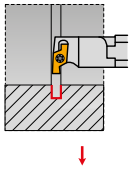
P M K N S

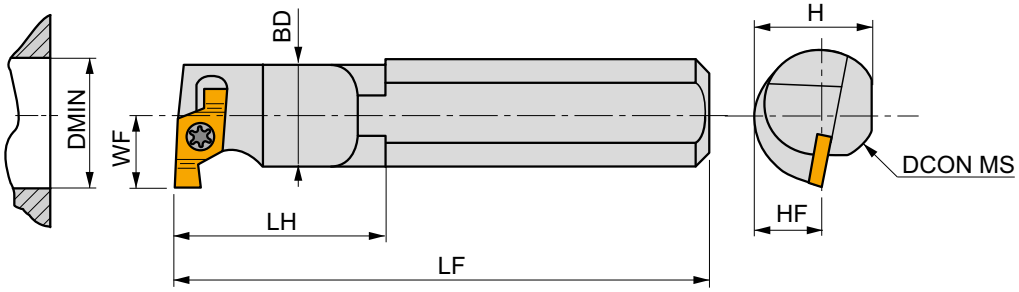
PRAMET

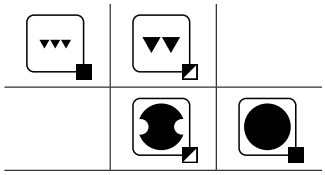
S

Internal Circlip Grooving Boring bar for X61 Insert

Internal Right/Left hand grooving boring bar for grooving with X61 double-sided inserts. Minimum internal grooving diameter Ø16 mm. Suited for internal cutting of circlip or O-ring grooves. Available with shank size Ø12 up to Ø32 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	H [mm]	LF [mm]	LH [mm]	KAPR [°]		kg		
R	P61.SGR-0012M-06	12	16	11.5	9	11	150	22	0	–	0.17	GI332	SV11
	P61.SGR-A-0016M-06	16	20	15	11	15	150	29	0	✓	0.21	GI332	SV11
	P61.SGR-A-0020P-06	20	25	19	13	18	170	29	0	✓	0.38	GI332	SV11
	P61.SGR-A-0025R-06	25	32	24	17	23	200	31	0	✓	0.70	GI332	SV11
	P61.SGR-A-0032T-06	32	40	31	22	30	300	49	0	✓	1.72	GI332	SV11
L	P61.SGL-0012M-06	12	16	11.5	9	11	150	22	0	–	0.17	GI332	SV11
	P61.SGL-A-0016M-06	16	20	15	11	15	150	29	0	✓	0.24	GI332	SV11
	P61.SGL-A-0020P-06	20	25	19	13	18	170	29	0	✓	0.40	GI332	SV11
	P61.SGL-A-0025R-06	25	32	24	17	23	200	31	0	✓	0.72	GI332	SV11
	P61.SGL-A-0032T-06	32	40	31	22	30	300	49	0	✓	1.72	GI332	SV11

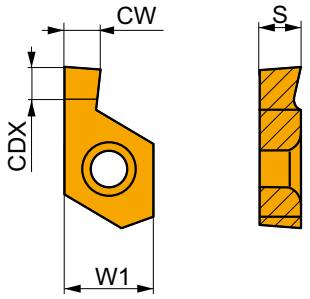
GI332	X61 0602..

		Nm			
SV11	US 2003-T07P	0.8	M 2.5	6.5	FLAG T07P

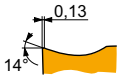
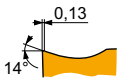
Left hand insert mount to righ hand boring bar.

X 61-1

	W1	CWTOLL	CWTOLU	S
	[mm]	[mm]	[mm]	[mm]
0602	6.350	-0.03	0.03	2.33

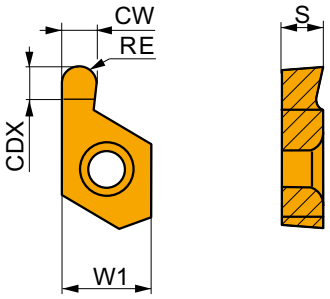


Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		CW	CDX
			vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	[mm]	[mm]
																
X 61-1-R internal, right-handed design, with one cutting edge for o-ring and circlip groove machining, with continuous cuts.																
X61 0602-080 R1	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.85	0.8
X61 0602-090 R1	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.95	0.8
X61 0602-110 R1	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.15	1.2
X61 0602-130 R1	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.35	1.4
X61 0602-160 R1	**6640**	–	180	0.06	105	0.05	170	0.06	–	–	–	–	–	–	1.65	1.7
X61 0602-185 R1	**6640**	–	150	0.09	90	0.08	140	0.09	–	–	–	–	–	–	1.90	2
X61 0602-215 R1	**6640**	–	145	0.09	85	0.08	135	0.09	–	–	–	–	–	–	2.20	2.2
																
X 61-1-L internal, left-handed design, with one cutting edge for o-ring and circlip groove machining, with continuous cuts.																
X61 0602-080 L1	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.85	0.8
X61 0602-090 L1	**6640**	–	195	0.06	115	0.05	185	0.06	–	–	–	–	–	–	0.95	0.8
X61 0602-110 L1	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.15	1.2
X61 0602-130 L1	**6640**	–	185	0.06	110	0.05	175	0.06	–	–	–	–	–	–	1.35	1.4
X61 0602-160 L1	**6640**	–	180	0.06	105	0.05	170	0.06	–	–	–	–	–	–	1.65	1.7
X61 0602-185 L1	**6640**	–	150	0.09	90	0.08	140	0.09	–	–	–	–	–	–	1.90	2
X61 0602-215 L1	**6640**	–	145	0.09	85	0.08	135	0.09	–	–	–	–	–	–	2.20	2.2

X 61 R-1

	W1	CWTOLL	CWTOLU	S
	[mm]	[mm]	[mm]	[mm]
0602	6.350	-0.03	0.03	2.33



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		CW	CDX
			vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	vc [m/min]	f [mm/rev]	[mm]	[mm]
																
			X 61 R-1-R internal, right-handed design, with one cutting edge for o-ring and circlip groove machining, with continuous cuts.													
X61 0602-R050 R1	**6640**	0.5	■ 185	0.06	◪ 110	0.05	◪ 175	0.06	–	–	–	–	–	–	1.09	1.3
X61 0602-R100 R1	**6640**	1.0	■ 170	0.06	◪ 100	0.05	◪ 160	0.06	–	–	–	–	–	–	2.09	2.8
																
			X 61 R-1-L internal, left-handed design, with one cutting edge for o-ring and circlip groove machining, with continuous cuts.													
X61 0602-R050 L1	**6640**	0.5	■ 185	0.06	◪ 110	0.05	◪ 175	0.06	–	–	–	–	–	–	1.09	1.3
X61 0602-R100 L1	**6640**	1.0	■ 170	0.06	◪ 100	0.05	◪ 160	0.06	–	–	–	–	–	–	2.09	2.8

P61S(RL)-1 INT

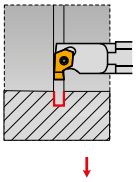
P M K N S

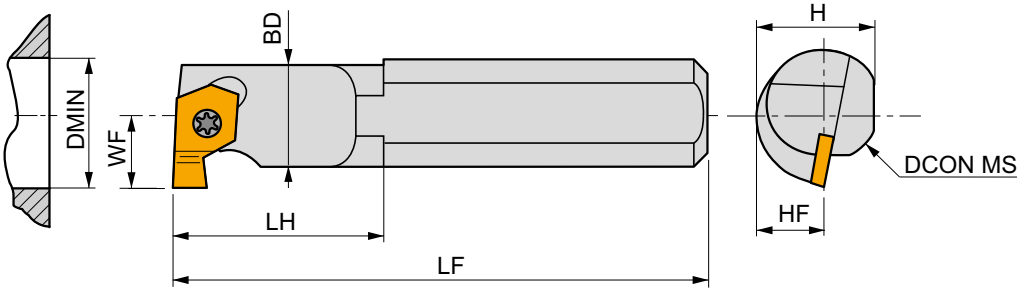
PRAMET

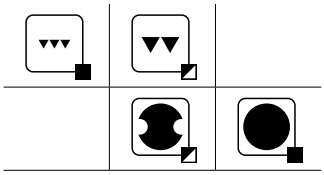
S

Internal Circlip Grooving Boring Bar for X61-1 Insert

Internal Right/Left hand grooving boring bar for grooving with single-sided X61-1 inserts. Minimum internal grooving diameter Ø12.5 mm. Suited for internal cutting of circlip or O-ring grooves. Available with shank size Ø10 and Ø12 mm. Body treated for longer tool life.







	Product	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	H [mm]	LF [mm]	LH [mm]	KAPR [°]	kg		
R	P61.SGR-0010M-06/1	10	12.5	10	7.5	9	150	19	0	0.24	GI333	SV11
	P61.SGR-0012M-06/1	12	12.5	10	7.5	11	150	19	0	0.17	GI333	SV11
L	P61.SGL-0010M-06/1	10	12.5	10	7.5	9	150	19	0	0.13	GI333	SV11
	P61.SGL-0012M-06/1	12	12.5	10	7.5	11	150	19	0	0.17	GI333	SV11

GI333	X61 0602..-1

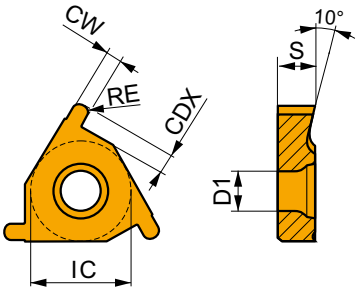
		Nm			
SV11	US 2003-T07P	0.8	M 2.5	6.5	FLAG T07P

Left hand insert mount to righ hand boring bar.

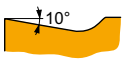
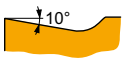
TN R EXT

PRAMET

	IC [mm]	D1 [mm]	S [mm]	CWTOLL [mm]	CWTOLU [mm]
16	9.525	3.90	3.58	0.00	0.05
22	12.700	4.90	4.70	0.00	0.05



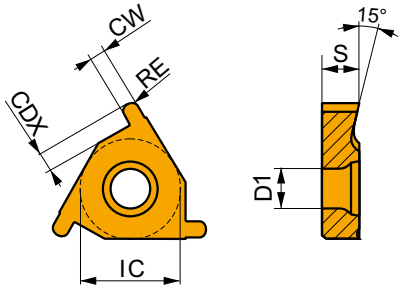
Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	M vc [m/min]	M f [mm/rev]	K vc [m/min]	K f [mm/rev]	N vc [m/min]	N f [mm/rev]	S vc [m/min]	S f [mm/rev]	H vc [m/min]	H f [mm/rev]	CW [mm]	CDX [mm]
			U E													
TN ER-R external, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																
TN 16ER-R050	**T8330**	0.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	1.00	1.3
TN 16ER-R100	**T8330**	1.0	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	2.00	1.85
TN 22ER-R150	**T8330**	1.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	3.00	2.2
			U E													
TN EL-R external, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																
TN 16EL-R050	**T8330**	0.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	1.00	1.3
TN 16EL-R100	**T8330**	1.0	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	2.00	1.85
TN 22EL-R150	**T8330**	1.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	3.00	2.2

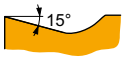
TN R INT

PRAMET

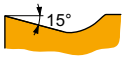
	IC [mm]	D1 [mm]	S [mm]	CWTOLL [mm]	CWTOLU [mm]
11	6.350	2.80	3.10	0.00	0.05
16	9.525	3.90	3.58	0.00	0.05
22	12.700	4.90	4.70	0.00	0.05



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	P f [mm/rev]	M vc [m/min]	M f [mm/rev]	K vc [m/min]	K f [mm/rev]	N vc [m/min]	N f [mm/rev]	S vc [m/min]	S f [mm/rev]	H vc [m/min]	H f [mm/rev]	CW [mm]	CDX [mm]
			U E													
TN NR-R internal, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.																
TN 11NR-R050	**T8330**	0.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	1.00	1.3
TN 16NR-R100	**T8330**	1.0	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	2.00	1.85
TN 22NR-R150	**T8330**	1.5	130	0.06	75	0.05	120	0.06	–	–	–	–	–	–	3.00	2.2

Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

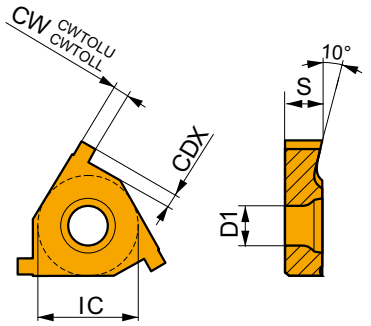
Product		RE	P				M				K				N				S				H				CW	CDX
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f			
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[mm]	[mm]
																												
TN 11NL-R050	T8330	0.5	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			1.00	1.3
TN 16NL-R100	T8330	1.0	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			2.00	1.85
TN 22NL-R150	T8330	1.5	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			3.00	2.2

TN NL-R internal, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.

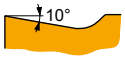
TN ZZ EXT

PRAMET

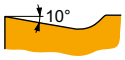
	IC	D1	S
	[mm]	[mm]	[mm]
16	9.525	3.90	3.40
22	12.700	4.90	4.70



Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations..

Product		RE	P				M				K				N				S				H				CW	CWTOLL	CWTOLU	CDX
			vc		f		vc		f		vc		f		vc		f		vc		f		vc		f					
		[mm]	[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[m/min]		[mm/rev]		[mm]	[mm]	[mm]	[mm]
																														
TN 16ER090ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			0.90	0.05	0.10	0.9
TN 16ER110ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			1.10	0.05	0.10	1.3
TN 16ER130ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			1.30	0.05	0.10	1.6
TN 16ER160ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			1.60	0.05	0.10	1.85
TN 16ER185ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			1.85	0.05	0.10	1.85
TN 16ER215ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			2.15	0.05	0.10	1.85
TN 16ER265ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			2.65	0.05	0.10	2.05
TN 22ER265ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			2.65	0.08	0.13	2.2
TN 22ER315ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			3.15	0.08	0.13	2.2
TN 22ER415ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			4.15	0.08	0.13	2.4

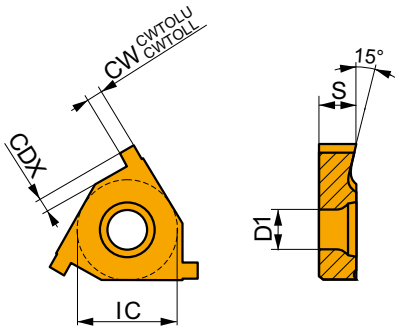
TN ER-ZZ external, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.

																														
TN 16EL090ZZ	T8330	–	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			0.90	0.05	0.10	0.9
TN 16EL110ZZ	T8330	–	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			1.10	0.05	0.10	1.3
TN 16EL130ZZ	T8330	–	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			1.30	0.05	0.10	1.6
TN 16EL160ZZ	T8330	–	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			1.60	0.05	0.10	1.85
TN 16EL185ZZ	T8330	–	■	130	0.06	◪	75	0.05	◪	120	0.06		–	–		–	–		–	–		–	–			1.85	0.05	0.10	1.85
TN 16EL215ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			2.15	0.05	0.10	1.85
TN 16EL265ZZ	T8330	–	■	130	0.09	◪	75	0.08	◪	120	0.09		–	–		–	–		–	–		–	–			2.65	0.05	0.10	2.05
TN 22EL265ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			2.65	0.08	0.13	2.2
TN 22EL315ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			3.15	0.08	0.13	2.2
TN 22EL415ZZ	T8330	–	■	130	0.12	◪	75	0.11	◪	120	0.12		–	–		–	–		–	–		–	–			4.15	0.08	0.13	2.4

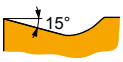
TN EL-ZZ external, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.

TN ZZ INT

	IC	D1	S
	[mm]	[mm]	[mm]
11	6.350	2.80	3.00
16	9.525	3.90	3.40
22	12.700	4.90	4.70

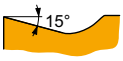


Suitability and starting values for cutting speed (vc) and feed (f). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		CW	CWTOLL	CWTOLU	CDX
			vc	f	vc	f	vc	f	vc	f	vc	f	vc	f				
		[mm]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[m/min]	[mm/rev]	[mm]	[mm]	[mm]	[mm]
																		

TN NR-ZZ internal, right-handed geometry, for o-ring and circlip groove machining, with continuous cuts.

TN 11NR090ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	0.90	0.05	0.10	0.9
TN 11NR110ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.10	0.05	0.10	1.3
TN 16NR090ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	0.90	0.05	0.10	0.9
TN 16NR110ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.10	0.05	0.10	1.3
TN 16NR130ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.30	0.05	0.10	1.6
TN 16NR160ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.60	0.05	0.10	1.85
TN 16NR185ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.85	0.05	0.10	1.85
TN 16NR215ZZ	**T8330**	–	■	130	0.09	◪	75	0.08	◪	120	0.09	–	–	–	–	–	–	2.15	0.05	0.10	1.85
TN 16NR265ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	2.65	0.05	0.10	2.05
TN 22NR265ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	2.65	0.08	0.13	2.2
TN 22NR315ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	3.15	0.08	0.13	2.2
TN 22NR415ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	4.15	0.08	0.13	2.4

TN NL-ZZ internal, left-handed geometry, for o-ring and circlip groove machining, with continuous cuts.

TN 11NL090ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	0.90	0.05	0.10	0.9
TN 11NL110ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.10	0.05	0.10	1.3
TN 16NL090ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	0.90	0.05	0.10	0.9
TN 16NL110ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.10	0.05	0.10	1.3
TN 16NL130ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.30	0.05	0.10	1.6
TN 16NL160ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.60	0.05	0.10	1.85
TN 16NL185ZZ	**T8330**	–	■	130	0.06	◪	75	0.05	◪	120	0.06	–	–	–	–	–	–	1.85	0.05	0.10	1.85
TN 16NL215ZZ	**T8330**	–	■	130	0.09	◪	75	0.08	◪	120	0.09	–	–	–	–	–	–	2.15	0.05	0.10	1.85
TN 16NL265ZZ	**T8330**	–	■	130	0.09	◪	75	0.08	◪	120	0.09	–	–	–	–	–	–	2.65	0.05	0.10	2.05
TN 22NL265ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	2.65	0.08	0.13	2.2
TN 22NL315ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	3.15	0.08	0.13	2.2
TN 22NL415ZZ	**T8330**	–	■	130	0.12	◪	75	0.11	◪	120	0.12	–	–	–	–	–	–	4.15	0.08	0.13	2.4

SE(RL)

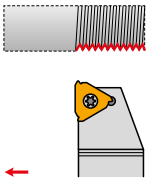
P M K N S H

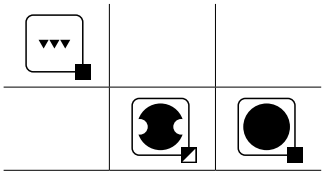
PRAMET

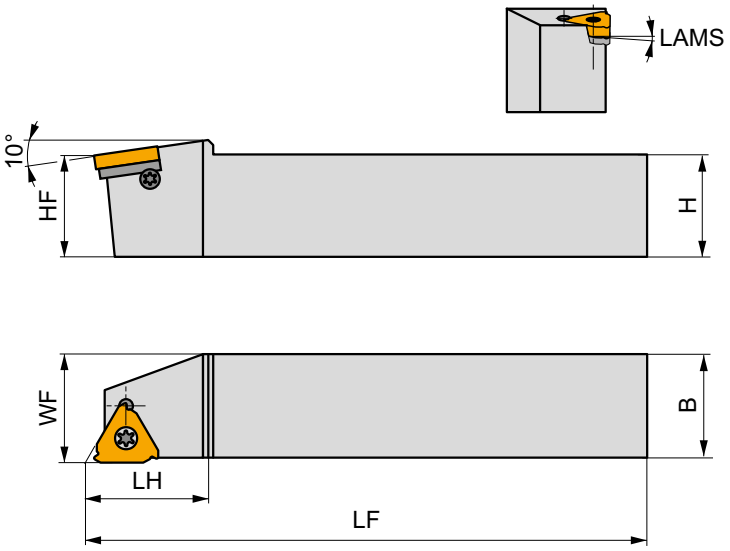
S

External Screw Clamped Threading Holder for TN 16 or 22 Insert

Right/Left hand screw lock tool holder for external threading with TN16 or 22 ER/EL inserts. Suited for threading in metric or inch profile. Also suited for shallow grooving. Body treated for longer tool life.







	Product	H [mm]	HF [mm]	B [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]		
R	**SER 2020 K 16**	20	20	20	20	125	22.5	–	GI068	Z12
	SER 2525 M 16	25	25	25	25	150	24	–	GI068	Z12
	SER 3225 P 16	32	32	25	25	170	24.5	–	GI068	Z12
	SER 2525 M 22-A	25	25	25	25	150	25.5	–	GI071	Z13
	SER 3225 P 22-A	32	32	25	25	170	25.5	–	GI071	Z13
L	**SEL 2020 K 16**	20	20	20	20	125	22.5	–	GI068	Z12
	SEL 2525 M 16	25	25	25	25	150	24	–	GI068	Z12
	SEL 3225 P 16	32	32	25	25	170	24.5	–	GI068	Z12
	SEL 2525 M 22-A	25	25	25	25	150	25.5	–	GI071	Z13
	SEL 3225 P 22-A	32	32	25	25	170	25.5	–	GI071	Z13

GI068	TN 16ER..	TN 16EL..
GI071	TN 22ER..	TN 22EL..

		Nm							
Z12	US 3512A-T15P	3.0	M 3.5	12.7	–	HS 0304	FLAG T15P	HXK 2.5	Page xx
Z13	US 4514A-T20	5.0	M 4.5	14	SP 0405	–	FLAG T20	–	Page xx

SI(RL)

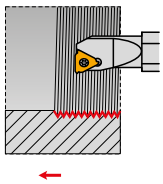
P M K N S H

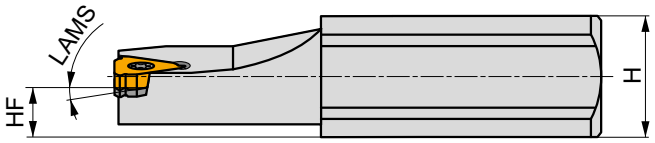
PRAMET

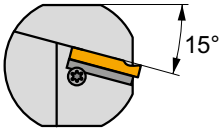
S

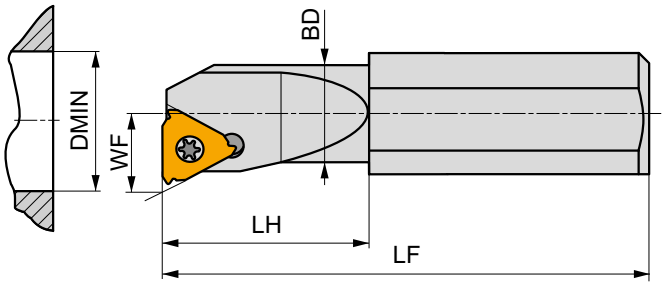
Internal Screw Clamped Threading Holder for TN 11, 16 or 22 Insert

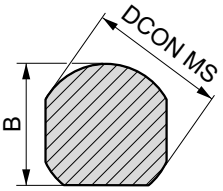
Right/Left hand screw lock boring bar for internal threading with TN11, 16 or 22 ER/EL inserts. Suited for threading in metric or inch profile. Minimum internal diameter Ø13 mm. Also suited for shallow grooving. Available with shank size Ø16 up to Ø40 mm. Body treated for longer tool life.

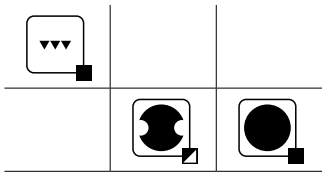












	Product	B [mm]	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]			
R	SIR 0010 K 11-0	14.5	16	13	10	7.45	14	7	125	25	0	–	GI085	Z11
	SIR 0010 K 11-1	14.5	16	13	10	7.45	14	7	125	25	1	–	GI085	Z11
	SIR 0013 M 11-0	14.5	16	16	13	9	14	7	150	32	0	–	GI085	Z11
	SIR 0013 M 11-1	14.5	16	16	13	9	14	7	150	32	1	–	GI085	Z11
	SIR 1416 N 16-0	14	16	22	17	11.4	14.5	7.5	160	–	0	–	GI022	Z9
	SIR 1416 N 16-1	14	16	22	17	11.4	14.5	7.5	160	–	1	–	GI022	Z9
	SIR 1416 N 16-2	14	16	16.5	15.5	10.6	14.5	7.5	160	40	2	✓	GI022	Z10
	SIR 1820 P 16	18.5	20	27	21	13.85	18	9	170	–	–	–	GI022	Z12
	SIR 2325 Q 16	23.5	25	29	26	16.55	23	11.5	180	–	–	–	GI022	Z12
	SIR 2532 S 16	30	32	36	32	19.75	25	12.5	250	–	–	–	GI022	Z12
	SIR 2532 S 22-2	30	32	25	25	16.65	25	12.5	250	80	2	✓	GI076	Z14
	SIR 2532 S 22-A	30	32	36	32	21.65	25	12.5	250	–	–	–	GI076	Z13
	SIR 3240 T 22-A	38	40	48	40	25.85	32	16	300	–	–	–	GI076	Z13
L	SIL 0010 K 11-0	14.5	16	13	10	7.45	14	7	125	25	0	–	GI085	Z11
	SIL 0010 K 11-1	14.5	16	13	10	7.55	14	7	125	25	1	–	GI085	Z11
	SIL 0013 M 11-0	14.5	16	16	13	9	14	7	150	32	0	–	GI085	Z11
	SIL 0013 M 11-1	14.5	16	16	13	9	14	7	150	32	1	–	GI085	Z11
	SIL 1416 N 16-0	14	16	22	17	11.4	14.5	7.5	160	–	0	–	GI022	Z9
	SIL 1416 N 16-1	14	16	22	17	11.4	14.5	7.5	160	–	1	–	GI022	Z9
	SIL 1416 N 16-2	14	16	16.5	15.5	10.6	14.5	7.5	160	40	2	✓	GI022	Z10
	SIL 1820 P 16	18.5	20	27	21	13.85	18	9	170	–	–	–	GI022	Z12
	SIL 2325 Q 16	23.5	25	29	26	16.55	23	11.5	180	–	–	–	GI022	Z12
	SIL 2532 S 16	30	32	36	32	19.75	25	12.5	250	–	–	–	GI022	Z12
	SIL 2532 S 22-2	30	32	25	25	16.65	25	12.5	250	80	2	✓	GI076	Z14
	SIL 2532 S 22-A	30	32	36	32	21.65	25	12.5	250	–	–	–	GI076	Z13
	SIL 3240 T 22-A	38	40	48	40	25.85	32	16	300	–	–	–	GI076	Z13

GI022	TN 16NR..	TN 16NL..
GI076	TN 22NR..	TN 22NL..
GI085	TN 11NR..	TN 11NL..

Z10	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	–
Z11	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–	–
Z12	US 3512A-T15P	3.0	M 3.5	12.7	–	HS 0304	FLAG T15P	HXK 2.5	Page xx
Z13	US 4514A-T20	5.0	M 4.5	14	SP 0405	–	FLAG T20	–	Page xx
Z14	US 4514A-T20	5.0	M 4.5	14	–	–	FLAG T20	–	–
Z9	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	P-16

Choice of shim

Helix angle λ	Positive					Negative		for grooving inserts TN16.. ... ZZ, TN22.. ... ZZ
	4,5°	3,5°	2,5°	1,5°	0,5°	-0,5°	-1,5°	
Tool holder	**Anvil specification**							
SER .... .16; SIL .... .16	PE16+4,5	PE16+3,5	PE16+2,5	**PE16+1,5**	PE16+0,5	PE16-0,5	PE16-1,5	PE16ZZ
SEL .... .16; SIR .... .16	PI16+4,5	PI16+3,5	PI16+2,5	**PI16+1,5**	PI16+0,5	PI16-0,5	PI16-1,5	PI16ZZ
SER .... .22; SIL .... .22	PE22+4,5	PE22+3,5	PE22+2,5	**PE22+1,5**	PE22+0,5	PE22-0,5	PE22-1,5	PE22ZZ
SEL .... .22; SIR .... .22	PI22+4,5	PI22+3,5	PI22+2,5	**PI22+1,5**	PI22+0,5	PI22-0,5	PI22-1,5	PI22ZZ
SER-S .... .22; SIL-S .... .22	PE22S+4,5	PE22S+3,5	PE22S+2,5	**PE22S+1,5**	PE22S+0,5	PE22S-0,5	PE22S-1,5	-
SEL-S .... .22; SIR-S .... .22	PI22S+4,5	PI22S+3,5	PI22S+2,5	**PI22S+1,5**	PI22S+0,5	PI22S-0,5	PI22S-1,5	-

Tool holders are usually supplied with a helix angle λ = 1.5°. A different helix angle can be selected by changing the anvil.
Shims for holders SER-S ...., SIR-S .... are marked with „***S***“

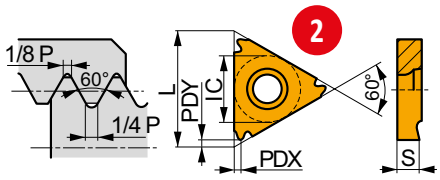
THREAD TURNING

1 TN M INT

PRAMET

	IC [mm]	L [mm]	S [mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47
22	12.700	22.00	4.71

3



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
4	5 15°		1 U E 6									
			TN M NR internal, right-handed design, for machining ISO M 10 threads, and continuous cuts.									
TN 11NR050M	T8010	–	175	105	165	–	40	–	0.50	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.50	–	0.8	0.8
TN 7 75M	8	9	175	105	165	11	40	–	0.75	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.75	–	0.8	0.8
TN 11NR100M	T8010	–	175	105	165	–	40	–	1.00	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.00	–	0.8	0.8
TN 11NR125M	T8010	–	175	105	165	–	40	–	1.25	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.25	–	0.8	0.8
TN 11NR150M	T8010	–	175	105	165	–	40	–	1.50	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.50	–	0.8	0.8
TN 11NR200M	T8010	–	175	105	165	–	40	–	2.00	–	0.9	0.8
	T8030	–	160	95	150	480	40	–	2.00	–	0.9	0.8
TN 16NR050M	T8010	–	175	105	165	–	40	–	0.50	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.50	–	0.8	0.8
TN 16NR075M	T8010	–	175	105	165	–	40	–	0.75	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.75	–	0.8	0.8
TN 16NR100M	T8010	–	175	105	165	–	40	–	1.00	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.00	–	0.8	0.8
TN 16NR125M	T8010	–	175	105	165	–	40	–	1.25	–	0.8	0.8

TN 16NR075M:T8010 Use full insert specification code when ordering!

- Grade
- Include colon
- ISO insert code

Typical page with turning inserts displayed – specific page details will differ.

THREAD TURNING INSERTS – PAGE OVERVIEW

Pos.	Description
1	Designation of insert
2	Schematic drawing of insert
3	Table with insert sizes [mm]
4	Picture of representative insert
5	Profile of main cutting edge
6	Icons – specific features and cutting edge type

Pos.	Description
7	ISO insert code
8	Grade
9	Insert radii [mm]
10	Geometry description
11	Application area of insert

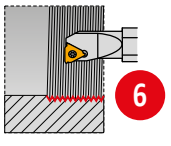
1 **SI(RL)**

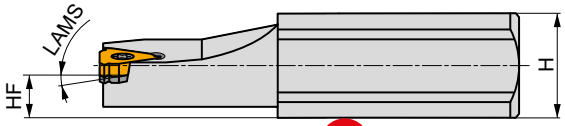
P M K N S H 2

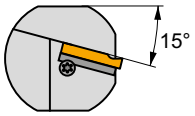
PRAMET 3 S

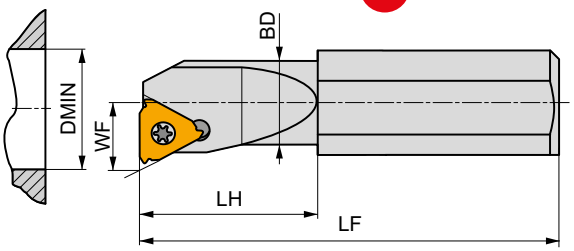
Internal Screw Clamped Threading Holder for TN 11, 16 or 22 Insert 5

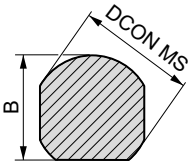
Right/Left hand screw lock boring bar for internal threading of TN 11, 16 or 22 ER/EL inserts. Suited for threading in metric or inch profile. Minimum internal diameter Ø13 mm. Also suited for shallow grooving. Available with shank size Ø16 up to Ø40 mm. Body treated for longer tool life.

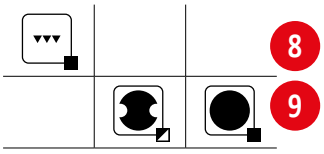












	Product	B [mm]	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]	14	15	16
11	**SIR 0010 K 11-0**	14.5	16	13	10	7.45	14	7	125	25	0	–	GI085	Z11
	SIR 0010 K 11-1	14.5	16	13	10	7.45	14	7	125	25	1	–	GI085	Z11
	SIR 0013 M 11-0	14.5	16	16	13	9	14	7	150	32	0			
	SIR 0013 12	14.5	16	16	13	9	14	7	150	32	1			
	SIR 1416 N 16-0	14	16	22	17	11.4	14.5	7.5	160	–	0	–	GI022	Z9
R	**SIR 1416 N 16-1**	14	16	22	17	11.4	14.5	7.5	160	–	1	–	GI022	Z9
	SIR 1416 N 16-2	14	16	16.5	15.5	10.6	14.5	7.5	160	40	2	✓	GI022	Z10
	SIR 1820 P 16	18.5	20	27	21	13.85	18	9	170	–	–	–	GI022	Z12
	SIR 2325 Q 16	23.5	25	29	26	16.55	23	11.5	180	–	–	–	GI022	Z12
	SIR 2532 S 16	30	32	36	32	19.75	25	12.5	250	–	–	–	GI022	Z12
	SIR 2532 S 22-2	30	32	25	25	16.65	25	12.5	250	80	2	✓	GI076	Z14
	SIR 2532 S 22-A	30	32	36	32	21.65	25	12.5	250	–	–	–	GI076	Z13
	SIR 3240 T 22-A	38	40	48	40	25.85	32	16	300	–	–	–	GI076	Z13

	17	
GI022	TN 16NR..	TN 16NL..
GI076	TN 22NR..	TN 22NL..
GI085	TN 11NR..	TN 11NL..

		Nm			18				
Z10	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	–
Z11	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–	–
Z12	US 3512A-T15P	3.0	M 3.5	12.7	–	HS 0304	FLAG T15P	HXK 2.5	Page xx
Z13	US 4514A-T20	5.0	M 4.5	14	SP 0405	–	FLAG T20	–	Page xx
Z14	US 4514A-T20	5.0	M 4.5	14	–	–	FLAG T20	–	–
Z9	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	P-16

Typical page with turning holders displayed – specific page details will differ.

THREAD TURNING HOLDERS – PAGE OVERVIEW

Pos.	Description
1	Designation of thread turning holder
2	Material group recommendations
3	Clamping system of insert
4	Illustrative picture [1]
5	Tool description
6	Workpiece profile
7	Schematic drawing of tool
8	Achievable quality of surface
9	Character of cut/working conditions

Pos.	Description
10	Product applications
11	Tool design
12	ISO code of holder
13	Dimensions [mm] and angles [2] [°] of holder
14	Internal coolant supply
15	Group of compatible inserts [3]
16	Group of spare parts [3], [4]
17	Compatible inserts
18	Spare parts

[1] Turning holder is primarily displayed in its right design (R)

[2] GAMO = orthogonal rake angle (see technical pages)
LAMS = inclination angle of main cutting edge (see technical pages)

[3] Code of Group of compatible inserts, spare parts and special accessories is used only for purposes of this catalogue. It cannot be used for orders.

[4] Spare parts and special accessories icons are designed schematically for ease of understanding. They aren't included in list of icons. Screws are, in some cases, completed with info on torque value in Nm, length of screw and size of thread.

THREAD TURNING – ICONS OVERVIEW

General icons

■	Primary use
◪	Possible use

▼▼▼	Finishing – very good surface quality
▼▼	Medium machining – good surface quality
▼	Roughing – unlimited surface roughness

●	Suitable for stable working conditions
	Suitable for unstable working conditions
	Suitable for very unstable working conditions

Features

	Thread turning – external
	Thread turning – internal

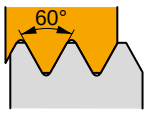
Coating

1	First choice
	For tough materials (long chipping)
U	Universal wide range option
E	Rounded edge
F	Sharp edge

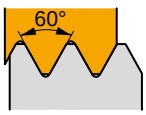
Other

Nm	Clamping torque of screw [Nm]
	Internal supply of coolant

M
Full profile

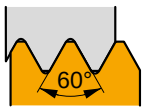
TN M EXT


495

TN M INT


497

M
Partial profile

TN 60° PP EXT


499

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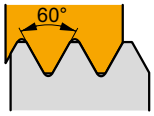
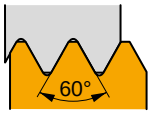


500

TN 60°-S PP EXT


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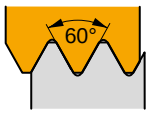
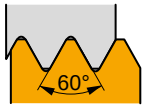


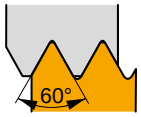
501

MJ
Full profile

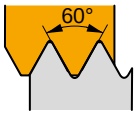
TN MJ EXT


499

UN
Full profile

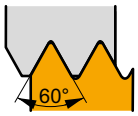
TN UN EXT


502

TN UN INT


503

UNJ
Full profile

TN UNJ EXT


504

W
Full profile

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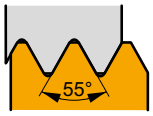

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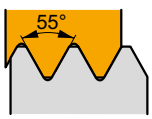
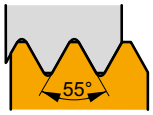
TN W INT


506

W
Partial profile

TN 55° PP EXT


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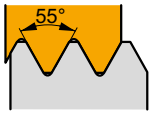
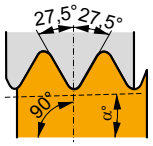


509

BSPT
Full profile

TN BSPT EXT


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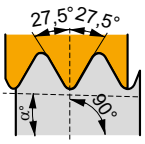
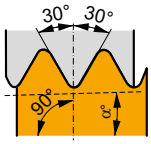


510

NPT
Full profile

TN NPT EXT


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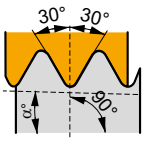

512

TR
Full profile

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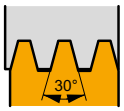

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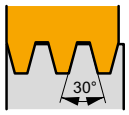

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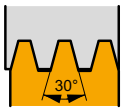

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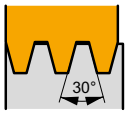

514

ACME
Full profile

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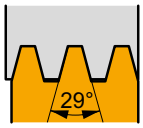

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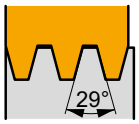
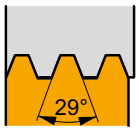


516

STACME
Full profile

TN STACME EXT


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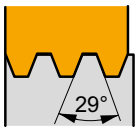
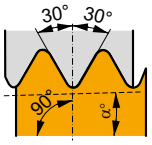


518

API RD
Full profile

TN API RD EXT


519

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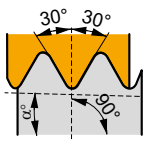
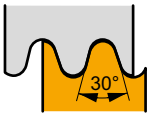


519

RD
Full profile

TN RD EXT


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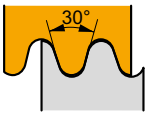


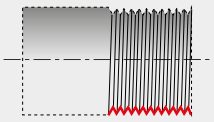
520

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
T8010	P05 - P15 M05 - M15 K10 - K20 S10 - S15	■ ■ ■ ◪				PVD		submicron H	+ + +	This grade is suitable for continuous high precision thread turning of steels, stainless steel, cast iron and super alloys. Offering excellent wear resistance while ensuring operational reliability
T8030	P25 - P40 M20 - M35 K20 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ■ ◪ ◪ ◪				PVD		submicron H	+ + +	Undoubtedly the most versatile grade it is suitable for machining all types of materials and can be applied in almost all turning operations. It's main benefits are high operational reliability and excellent frictional properties; it is therefore suited to applications at medium to low cutting speeds.
HF7	M10 - M20 K10 - K25 N10 - N25	◪ ■ ■				×		submicron H	+ +	Uncoated grade which is primarily designed for machining non-ferrous metals; but can also be used for other machined materials (except steel). This material can be used in turning, milling, and even boring.

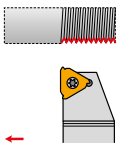
Substrat	
submicron H	WC-Co based substrate fine grained (< 1 µm)

Coating	
PVD	Low-temperature physical method of coating

ISO THREAD TURNING – EXTERNAL

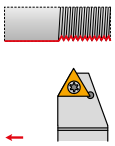


SE(RL)



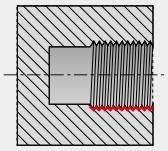
TN..
16 22
20×20 32×25
522
459 – 521

SE(RL)-S

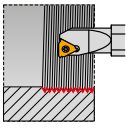


TN..
22
25×25 32×25
523
459 – 521

ISO THREAD TURNING – INTERNAL

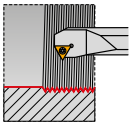


SI(RL)



TN..
11 16 22
13 48
524
459 – 521

SI(RL)-S

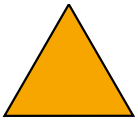


TN..
22
39 48
526
459 – 521

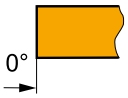
INDEXABLE CUTTING INSERTS FOR THREADING ISO – CODE DESIGNATION

	1	2	3	4	5	6	7		8
ISO	T	N	16	E	R	175	M	–	P1
ANSI	1	2	3	4	5	6	7		8
	T	N	16	E	R	120	W	–	P1

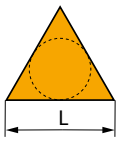
1 Insert shape

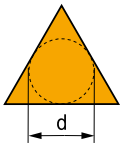
T	

2 Insert clearance angle

N	

3 Insert cutting edge length (insert size)





L		d = IC	
[mm]	[″]	[mm]	[″]
11	.433″	**6,350**	1/4″
16	.650″	**9,525**	3/8″
22	.866″	**12,7**	1/2″

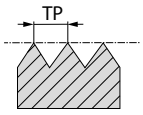
4 External – Internal

E	External
N	Internal

5 Direction of cut

R	Right
L	Left
N	Neutral

6 Thread pitch



s × 100

Thread Pitch mm × 100

6 No. of threads

No. of threads per inch × 10

7 Thread profile

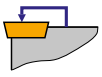
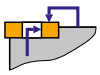
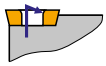
M	Metric 60°	**TR**	TR 30° ISO 2901/3–1977
MJ	SEA MA1370	**UN**	American UN 60° ISO 5864–1978
W	Whitworth 55° ISO 228–1982	**UNJ**	SEA AS8879
RD	Round 30°	**ACME**	ACME 29° ANSI B1.5–1988
BSPT	ISO 228/1 35 21 1959 ISO 7/1	**STACME**	ASME/ANSI B1.8-1988
NPT	ANSI B1.1–1983	**API RD**	API

8 Chip breaker designation

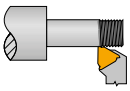
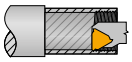
P1	Pressed
AL	For nonferous

	1	2	3		4	5	6	7		8
ISO	S	E	R	–	S	2525	M	16	–	
ANSI	S	E	R	–	S	16	D	16	–	

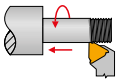
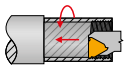
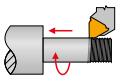
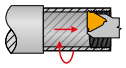
1 Clamping designation

C	
P	
M	
S	

2 Machining orientation

E	External	
I	Internal	

3 Direction of cut

R	Right	External	
		Internal	
L	Left	External	
		Internal	

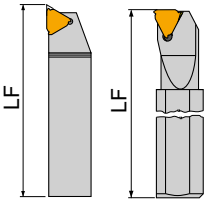
4 Type of construction

–	Normal
S	Special

5 Holder dimensions [mm]

External turning	2525	25 × 25 mm
Internal turning	1416	Shank – 14 mm Shank height Ø – 16 mm

6 Holder total length [mm]

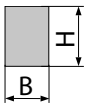


	LF [mm]
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300

7 Insert cutting edge length (insert size)

d = IC [mm]	d = IC [″]	T
6.350	1/4″	11
9.525	3/8″	16
12.700	1/2″	22

5 Tool dimensions [″]

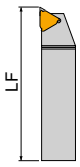


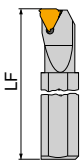
	B [″]	H [″]
10	5/8″	5/8″
12	3/4″	3/4″
16	1″	1″
85	1″	1 1/4″
86	1″	1 1/2″
20	1 1/4″	1 1/4″

	DCON [″]
08	.500″
10	.625″
12	.750″
16	1.000″
20	1.250″
24	1.500″

For square shanks, the number is the width or height in terms of 16ths. For rectangular shanks the first digit is the width in terms of 8ths and the second digit is the height in terms of 4ths.

6 Holder total length [″]





	LF [″]
C	5.000″
D	6.000″
E	7.000″
F	8.000″
K	5.000″
M	6.000″
P	6.250″
Q	7.250″
R	8.000″
S	10.000″
T	12.000″
U	14.000″

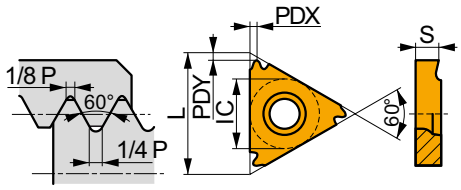
8 Helix angle λ

0	Helix angle λ = 0°
1	Helix angle λ = 1°
2	Helix angle λ = 2°

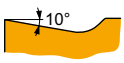
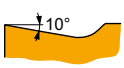
TN M EXT

PRAMET

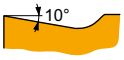
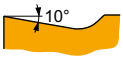
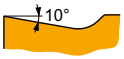
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			TN M ER external, right-handed design, for machining ISO Metric threads, and continuous cuts.									
TN 16ER050M	**T8010**	–	175	105	165	–	40	–	0.50	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.50	–	0.8	0.8
TN 16ER075M	**T8010**	–	175	105	165	–	40	–	0.75	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	0.75	–	0.8	0.8
TN 16ER080M	**T8010**	–	175	105	165	–	40	–	0.80	–	0.6	0.8
	T8030	–	160	95	150	480	40	–	0.80	–	0.6	0.8
TN 16ER100M	**T8010**	–	175	105	165	–	40	–	1.00	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.00	–	0.8	0.8
TN 16ER125M	**T8010**	–	175	105	165	–	40	–	1.25	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.25	–	0.8	0.8
TN 16ER150M	**T8010**	–	175	105	165	–	40	–	1.50	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.50	–	0.8	0.8
TN 16ER175M	**T8010**	–	175	105	165	–	40	–	1.75	–	1.5	1.2
	T8030	–	160	95	150	480	40	–	1.75	–	1.5	1.2
TN 16ER200M	**T8010**	–	175	105	165	–	40	–	2.00	–	1.5	1.2
	T8030	–	160	95	150	480	40	–	2.00	–	1.5	1.2
TN 16ER250M	**T8010**	–	175	105	165	–	40	–	2.50	–	1.5	1.2
	T8030	–	160	95	150	480	40	–	2.50	–	1.5	1.2
TN 16ER300M	**T8010**	–	175	105	165	–	40	–	3.00	–	1.5	1.2
	T8030	–	160	95	150	480	40	–	3.00	–	1.5	1.2
TN 16ER350M	**T8030**[1)]	–	160	95	150	480	40	–	3.50	–	1.7	1.2
TN 22ER350M	**T8010**	–	175	105	165	–	40	–	3.50	–	2.5	1.8
	T8030	–	160	95	150	480	40	–	3.50	–	2.5	1.8
TN 22ER400M	**T8010**	–	175	105	165	–	40	–	4.00	–	2.5	1.8
	T8030	–	160	95	150	480	40	–	4.00	–	2.5	1.8
TN 22ER450M	**T8010**	–	175	105	165	–	40	–	4.50	–	2.5	1.8
	T8030	–	160	95	150	480	40	–	4.50	–	2.5	1.8
TN 22ER500M	**T8010**	–	175	105	165	–	40	–	5.00	–	2.5	1.8
	T8030	–	160	95	150	480	40	–	5.00	–	2.5	1.8
												
			TN M EL external, left-handed design, for machining ISO Metric threads, and continuous cuts.									
TN 16EL050M	**T8030**	–	160	95	150	480	40	–	0.50	–	0.8	0.8
TN 16EL075M	**T8030**	–	160	95	150	480	40	–	0.75	–	0.8	0.8
TN 16EL080M	**T8030**	–	160	95	150	480	40	–	0.80	–	0.6	0.8
TN 16EL100M	**T8010**	–	175	105	165	–	40	–	1.00	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.00	–	0.8	0.8
TN 16EL125M	**T8010**	–	175	105	165	–	40	–	1.25	–	0.8	0.8
	T8030	–	160	95	150	480	40	–	1.25	–	0.8	0.8

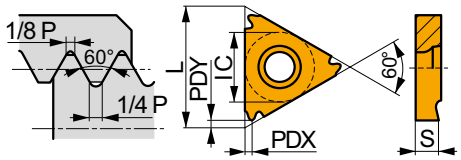
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		TP	TPI	PDX	PDY
			vc		vc		vc		vc		vc		vc					
		[mm]	[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[mm]		[mm]	[mm]
																		
TN M EL external, left-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 16EL150M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.50	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.50	–	0.8	0.8
TN 16EL175M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.75	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.75	–	1.5	1.2
TN 16EL200M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	2.00	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	2.00	–	1.5	1.2
TN 16EL250M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	2.50	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	2.50	–	1.5	1.2
TN 16EL300M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	3.00	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	3.00	–	1.5	1.2
TN 16EL350M	**T8030**[1)]	–	■	160	■	95	■	150	◪	480	◪	40		–	3.50	–	1.7	1.2
TN 22EL350M	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	3.50	–	2.5	1.8
TN 22EL400M	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	4.00	–	2.5	1.8
TN 22EL450M	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	4.50	–	2.5	1.8
TN 22EL500M	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	5.00	–	2.5	1.8
																		
TN M-P1 ER pressed external, right-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 16ER100M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	1.00	–	0.8	0.8
TN 16ER125M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	1.25	–	0.8	0.8
TN 16ER150M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	1.50	–	0.8	0.8
TN 16ER175M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	1.75	–	1.5	1.2
TN 16ER200M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	2.00	–	1.5	1.2
TN 16ER250M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	2.50	–	1.5	1.2
TN 16ER300M-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	3.00	–	1.5	1.2
																		
TN M-AL ER external, right-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 16ER050M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	0.50	–	0.8	0.8
TN 16ER075M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	0.75	–	0.8	0.8
TN 16ER080M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	0.80	–	0.6	0.8
TN 16ER100M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	1.00	–	0.8	0.8
TN 16ER125M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	1.25	–	0.8	0.8
TN 16ER150M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	1.50	–	0.8	0.8
TN 16ER175M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	1.75	–	1.5	1.2
TN 16ER200M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	2.00	–	1.5	1.2
TN 16ER250M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	2.50	–	1.5	1.2
TN 16ER300M-AL	**HF7**	–		–	◪	95		–	■	480		–		–	3.00	–	1.5	1.2

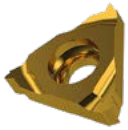
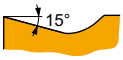
[1)] Toolholders have to be modified.

TN M INT

	IC [mm]	L [mm]	S [mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47
22	12.700	22.00	4.71



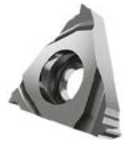
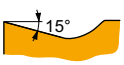
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												

TN M NR internal, right-handed design, for machining ISO Metric threads, and continuous cuts.

TN 11NR050M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	0.50	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	0.50	–	0.8	0.8
TN 11NR075M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	0.75	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	0.75	–	0.8	0.8
TN 11NR100M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.00	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.00	–	0.8	0.8
TN 11NR125M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.25	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.25	–	0.8	0.8
TN 11NR150M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.50	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.50	–	0.8	0.8
TN 11NR200M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	2.00	–	0.9	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	2.00	–	0.9	0.8
TN 16NR050M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	0.50	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	0.50	–	0.8	0.8
TN 16NR075M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	0.75	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	0.75	–	0.8	0.8
TN 16NR100M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.00	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.00	–	0.8	0.8
TN 16NR125M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.25	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.25	–	0.8	0.8
TN 16NR150M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.50	–	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.50	–	0.8	0.8
TN 16NR175M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	1.75	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	1.75	–	1.5	1.2
TN 16NR200M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	2.00	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	2.00	–	1.5	1.2
TN 16NR250M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	2.50	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	2.50	–	1.5	1.2
TN 16NR300M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	3.00	–	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	3.00	–	1.5	1.2
TN 16NR350M	**T8030**[1)]	–	■	160	■	95	■	150	◪	480	◪	40		–	3.50	–	1.6	1.2
TN 22NR350M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	3.50	–	2.5	1.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	3.50	–	2.5	1.8
TN 22NR400M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	4.00	–	2.5	1.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	4.00	–	2.5	1.8
TN 22NR450M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	4.50	–	2.5	1.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	4.50	–	2.5	1.8
TN 22NR500M	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	5.00	–	2.5	1.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	5.00	–	2.5	1.8

Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

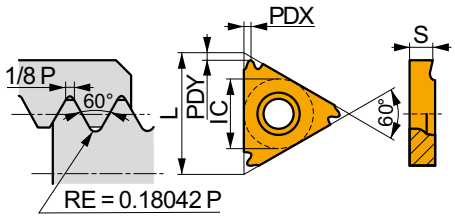
Product		RE	P		M		K		N		S		H		TP	TPI	PDX	PDY
			vc		vc		vc		vc		vc		vc					
		[mm]	[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[mm]		[mm]	[mm]
																		
TN M NL internal, left-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 11NL050M	**T8030**	–	160		95		150		480		40		–		0.50	–	0.8	0.8
TN 11NL075M	**T8030**	–	160		95		150		480		40		–		0.75	–	0.8	0.8
TN 11NL100M	**T8030**	–	160		95		150		480		40		–		1.00	–	0.8	0.8
TN 11NL125M	**T8030**	–	160		95		150		480		40		–		1.25	–	0.8	0.8
TN 11NL150M	**T8010**	–	175		105		165		–		40		–		1.50	–	0.8	0.8
	T8030	–	160		95		150		480		40		–		1.50	–	0.8	0.8
TN 11NL200M	**T8010**	–	175		105		165		–		40		–		2.00	–	0.9	0.8
	T8030	–	160		95		150		480		40		–		2.00	–	0.9	0.8
TN 16NL050M	**T8030**	–	160		95		150		480		40		–		0.50	–	0.8	0.8
TN 16NL075M	**T8030**	–	160		95		150		480		40		–		0.75	–	0.8	0.8
TN 16NL100M	**T8010**	–	175		105		165		–		40		–		1.00	–	0.8	0.8
	T8030	–	160		95		150		480		40		–		1.00	–	0.8	0.8
TN 16NL125M	**T8010**	–	175		105		165		–		40		–		1.25	–	0.8	0.8
	T8030	–	160		95		150		480		40		–		1.25	–	0.8	0.8
TN 16NL150M	**T8010**	–	175		105		165		–		40		–		1.50	–	0.8	0.8
	T8030	–	160		95		150		480		40		–		1.50	–	0.8	0.8
TN 16NL175M	**T8010**	–	175		105		165		–		40		–		1.75	–	1.5	1.2
	T8030	–	160		95		150		480		40		–		1.75	–	1.5	1.2
TN 16NL200M	**T8010**	–	175		105		165		–		40		–		2.00	–	1.5	1.2
	T8030	–	160		95		150		480		40		–		2.00	–	1.5	1.2
TN 16NL250M	**T8010**	–	175		105		165		–		40		–		2.50	–	1.5	1.2
	T8030	–	160		95		150		480		40		–		2.50	–	1.5	1.2
TN 16NL300M	**T8010**	–	175		105		165		–		40		–		3.00	–	1.5	1.2
	T8030	–	160		95		150		480		40		–		3.00	–	1.5	1.2
TN 16NL350M	**T8030**[1)]	–	160		95		150		480		40		–		3.50	–	1.6	1.2
TN 22NL350M	**T8030**	–	160		95		150		480		40		–		3.50	–	2.5	1.8
TN 22NL400M	**T8030**	–	160		95		150		480		40		–		4.00	–	2.5	1.8
TN 22NL500M	**T8030**	–	160		95		150		480		40		–		5.00	–	2.5	1.8
																		
TN M-P1 NR pressed internal, right-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 11NR100M-P1	**T8030**	–	160		95		150		480		40		–		1.00	–	0.8	0.8
TN 11NR150M-P1	**T8030**	–	160		95		150		480		40		–		1.50	–	0.8	0.8
TN 16NR100M-P1	**T8030**	–	160		95		150		480		40		–		1.00	–	0.8	0.8
TN 16NR150M-P1	**T8030**	–	160		95		150		480		40		–		1.50	–	0.8	0.8
TN 16NR200M-P1	**T8030**	–	160		95		150		480		40		–		2.00	–	1.5	1.2
TN 16NR250M-P1	**T8030**	–	160		95		150		480		40		–		2.50	–	1.5	1.2
TN 16NR300M-P1	**T8030**	–	160		95		150		480		40		–		3.00	–	1.5	1.2
																		
TN M-AL NR internal, right-handed design, for machining ISO Metric threads, and continuous cuts.																		
TN 16NR050M-AL	**HF7**	–	–		95		–		480		–		–		0.50	–	0.8	0.8
TN 16NR075M-AL	**HF7**	–	–		95		–		480		–		–		0.75	–	0.8	0.8
TN 16NR100M-AL	**HF7**	–	–		95		–		480		–		–		1.00	–	0.8	0.8
TN 16NR125M-AL	**HF7**	–	–		95		–		480		–		–		1.25	–	0.8	0.8
TN 16NR150M-AL	**HF7**	–	–		95		–		480		–		–		1.50	–	0.8	0.8
TN 16NR175M-AL	**HF7**	–	–		95		–		480		–		–		1.75	–	1.5	1.2
TN 16NR200M-AL	**HF7**	–	–		95		–		480		–		–		2.00	–	1.5	1.2
TN 16NR250M-AL	**HF7**	–	–		95		–		480		–		–		2.50	–	1.5	1.2
TN 16NR300M-AL	**HF7**	–	–		95		–		480		–		–		3.00	–	1.5	1.2

[1)] Toolholders have to be modified.

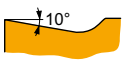
TN MJ EXT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47



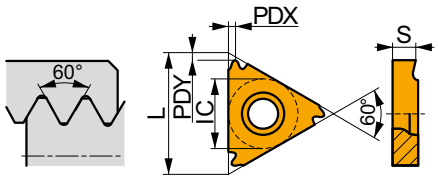
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
			1 U E									
			TN MJ ER external, right-handed design, for machining Metric "J form" threads, and continuous cuts.									
TN 16ER100MJ	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	1.00	–	0.8	0.8
TN 16ER150MJ	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	1.50	–	0.8	0.8

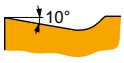
TN 60° PP EXT

PRAMET

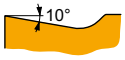
	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TPN	TPX	TPIN	TPIX	PDX	PDY
			vc	vc	vc	vc	vc	vc						
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]	[mm]			[mm]	[mm]
			1 U E											
			TN M60 PP ER external, right-handed design, for machining Metric and Unified threads, and continuous cuts.											
TN 16ERA60	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	0.50	1.50	16	48	0.8	0.6
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	1.50	16	48	0.8	0.6
TN 16ERAG60	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	0.50	3.00	8	48	1.5	1.1
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	3.00	8	48	1.5	1.1
TN 16ERG60	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	1.75	3.00	8	14	1.5	1.1
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	1.75	3.00	8	14	1.5	1.1
TN 22ERN60	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	3.50	5.00	5	7	2.5	1.8
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	3.50	5.00	5	7	2.5	1.8

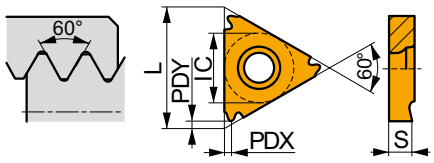
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]		M vc [m/min]		K vc [m/min]		N vc [m/min]		S vc [m/min]		H vc [m/min]		TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
																				
			1 U E																	
TN M60 PP EL external, left-handed design, for machining Metric and Unified threads, and continuous cuts.																				
TN 16ELA60	**T8030**	–	160		95		150		480		40		–		0.50	1.50	16	48	0.8	0.6
TN 16ELAG60	**T8010**	–	175		105		165		–		40		–		0.50	3.00	8	48	1.5	1.1
	T8030	–	160		95		150		480		40		–		0.50	3.00	8	48	1.5	1.1
TN 16ELG60	**T8030**	–	160		95		150		480		40		–		1.75	3.00	8	14	1.5	1.1
TN 22ELN60	**T8030**	–	160		95		150		480		40		–		3.50	5.00	5	7	2.5	1.8

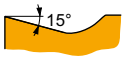
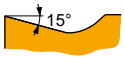
TN 60° PP INT

PRAMET

	IC [mm]	L [mm]	S [mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47
22	12.700	22.00	4.71



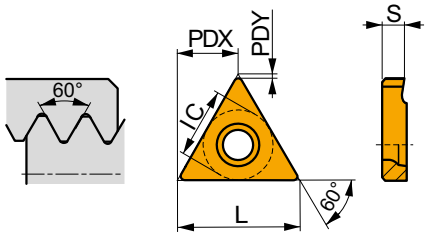
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]		M vc [m/min]		K vc [m/min]		N vc [m/min]		S vc [m/min]		H vc [m/min]		TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
																				
			1 U E																	
TN M60 PP NR internal, right-handed design, for machining Metric and Unified threads, and continuous cuts.																				
TN 11NRA60	**T8010**	–	175		105		165		–		40		–		0.50	1.50	16	48	0.8	0.7
	T8030	–	160		95		150		480		40		–		0.50	1.50	16	48	0.8	0.7
TN 16NRA60	**T8010**	–	175		105		165		–		40		–		0.50	1.50	16	48	0.8	0.7
	T8030	–	160		95		150		480		40		–		0.50	1.50	16	48	0.8	0.7
TN 16NRAG60	**T8010**	–	175		105		165		–		40		–		0.50	3.00	8	48	1.5	1.1
	T8030	–	160		95		150		480		40		–		0.50	3.00	8	48	1.5	1.1
TN 16NRG60	**T8010**	–	175		105		165		–		40		–		1.75	3.00	8	14	1.5	1.1
	T8030	–	160		95		150		480		40		–		1.75	3.00	8	14	1.5	1.1
TN 22NRN60	**T8010**	–	175		105		165		–		40		–		3.50	5.00	5	7	2.5	1.8
	T8030	–	160		95		150		480		40		–		3.50	5.00	5	7	2.5	1.8
																				
			1 U E																	
TN M60 PP NL internal, left-handed design, for machining Metric and Unified threads, and continuous cuts.																				
TN 11NLA60	**T8030**	–	160		95		150		480		40		–		0.50	1.50	16	48	0.8	0.7
TN 16NLA60	**T8030**	–	160		95		150		480		40		–		0.50	1.50	16	48	0.8	0.7
TN 16NLAG60	**T8010**	–	175		105		165		–		40		–		0.50	3.00	8	48	1.5	1.1
	T8030	–	160		95		150		480		40		–		0.50	3.00	8	48	1.5	1.1
TN 16NLG60	**T8030**	–	160		95		150		480		40		–		1.75	3.00	8	14	1.5	1.1
TN 22NLN60	**T8030**	–	160		95		150		480		40		–		3.50	5.00	5	7	2.5	1.8

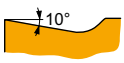
TN 60°-S PP EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
22	12.700	22.00	4.60



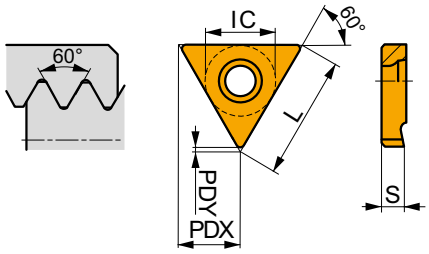
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
			1 Ü E											
TN M60-S PP EN external, left and right-handed design, for machining Metric and Unified threads, and continuous cuts.														
TN 22EN350-500M	**T8030**	–	160	95	150	480	40	–	3.50	5.00	5	7	11.0	0.5
TN 22EN550-800M	**T8030**	–	160	95	150	480	40	–	5.50	8.00	3	4.5	11.0	0.8

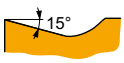
TN 60°-S PP INT

PRAMET

	IC [mm]	L [mm]	S [mm]
22	12.700	22.00	4.60

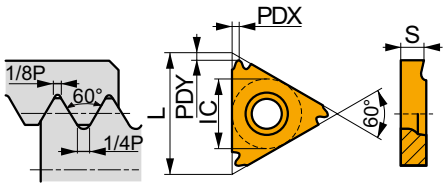


Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

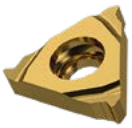
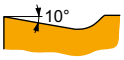
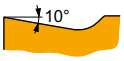
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
			1 Ü E											
TN M60-S PP NN internal, left and right-handed design, for machining Metric and Unified threads, and continuous cuts.														
TN 22NN350-500M	**T8030**	–	160	95	150	480	40	–	3.50	5.00	5	7	11.0	0.2
TN 22NN550-800M	**T8030**	–	160	95	150	480	40	–	5.50	8.00	3	4.5	11.0	0.5

TN UN EXT

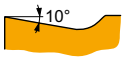
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			TN UN ER external, right-handed design, for machining Unified threads and continuous cuts.									
TN 16ER320UN	**T8030**	–	160	95	150	480	40	–	–	32.0	0.8	0.8
TN 16ER280UN	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16ER240UN	**T8030**	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16ER200UN	**T8010**	–	175	105	165	–	40	–	–	20.0	0.8	0.8
	T8030	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16ER180UN	**T8030**	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16ER160UN	**T8030**	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16ER140UN	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16ER130UN	**T8030**	–	160	95	150	480	40	–	–	13.0	1.5	1.2
TN 16ER120UN	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16ER115UN	**T8030**	–	160	95	150	480	40	–	–	11.5	1.5	1.2
TN 16ER110UN	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2
TN 16ER100UN	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16ER090UN	**T8030**	–	160	95	150	480	40	–	–	9.0	1.5	1.2
TN 16ER080UN	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 22ER070UN	**T8030**	–	160	95	150	480	40	–	–	7.0	2.5	1.8
TN 22ER060UN	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8
TN 22ER050UN	**T8030**	–	160	95	150	480	40	–	–	5.0	2.5	1.8
												
			TN UN EL external, left-handed design, for machining Unified threads, and continuous cuts.									
TN 16EL320UN	**T8030**	–	160	95	150	480	40	–	–	32.0	0.8	0.8
TN 16EL280UN	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16EL240UN	**T8030**	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16EL200UN	**T8030**	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16EL180UN	**T8030**	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16EL160UN	**T8030**	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16EL140UN	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16EL120UN	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16EL110UN	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2
TN 16EL100UN	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16EL090UN	**T8030**	–	160	95	150	480	40	–	–	9.0	1.5	1.2
TN 16EL080UN	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 22EL070UN	**T8030**	–	160	95	150	480	40	–	–	7.0	2.5	1.8
TN 22EL060UN	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8
TN 22EL050UN	**T8030**	–	160	95	150	480	40	–	–	5.0	2.5	1.8

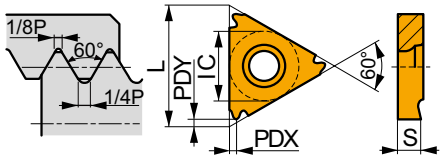
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
TN UN-P1 ER pressed external, right-handed design, for machining Unified threads, and continuous cuts.												
TN 16ER200UN-P1	**T8030**	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16ER180UN-P1	**T8030**	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16ER160UN-P1	**T8030**	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16ER140UN-P1	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16ER120UN-P1	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16ER080UN-P1	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2

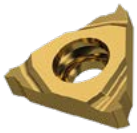
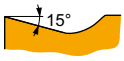
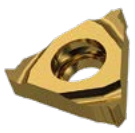
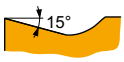
TN UN INT

PRAMET

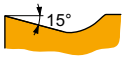
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

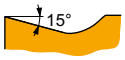
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
TN UN NR internal, right-handed design, for machining Unified threads, and continuous cuts.												
TN 16NR320UN	**T8030**	–	160	95	150	480	40	–	–	32.0	0.8	0.8
TN 16NR280UN	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16NR240UN	**T8030**	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16NR200UN	**T8010**	–	175	105	165	–	40	–	–	20.0	0.8	0.8
	T8030	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16NR180UN	**T8030**	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16NR160UN	**T8030**	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16NR140UN	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16NR130UN	**T8030**	–	160	95	150	480	40	–	–	13.0	1.5	1.2
TN 16NR120UN	**T8010**	–	175	105	165	–	40	–	–	12.0	1.5	1.2
	T8030	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16NR115UN	**T8030**	–	160	95	150	480	40	–	–	11.5	1.5	1.2
TN 16NR110UN	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2
TN 16NR100UN	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16NR080UN	**T8010**	–	175	105	165	–	40	–	–	8.0	1.5	1.2
	T8030	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 22NR070UN	**T8030**	–	160	95	150	480	40	–	–	7.0	2.5	1.8
TN 22NR060UN	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8
TN 22NR050UN	**T8030**	–	160	95	150	480	40	–	–	5.0	2.5	1.8
												
TN UN NL internal, left-handed design, for machining Unified threads, and continuous cuts.												
TN 16NL320UN	**T8030**	–	160	95	150	480	40	–	–	32.0	0.8	0.8

Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												

TN UN NL internal, left-handed design, for machining Unified threads, and continuous cuts.

TN 16NL280UN	T8030	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16NL240UN	T8030	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16NL200UN	T8030	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16NL180UN	T8030	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16NL160UN	T8030	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16NL140UN	T8030	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16NL120UN	T8030	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16NL110UN	T8030	–	160	95	150	480	40	–	–	11.0	1.5	1.2
TN 16NL100UN	T8030	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16NL080UN	T8030	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 22NL070UN	T8030	–	160	95	150	480	40	–	–	7.0	2.5	1.8
TN 22NL060UN	T8030	–	160	95	150	480	40	–	–	6.0	2.5	1.8

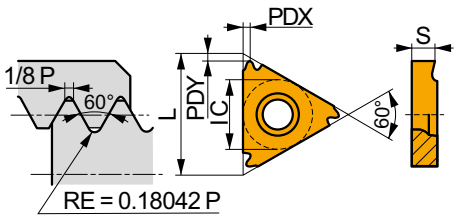
TN UN-P1 NR pressed internal, right-handed design, for machining Unified threads, and continuous cuts.

TN 16NR200UN-P1	T8030	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16NR180UN-P1	T8030	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16NR160UN-P1	T8030	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16NR140UN-P1	T8030	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16NR120UN-P1	T8030	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16NR080UN-P1	T8030	–	160	95	150	480	40	–	–	8.0	1.5	1.2

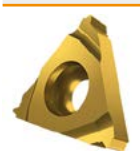
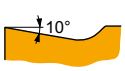
TN UNJ EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47



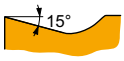
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												

TN UNJ ER external, right-handed design, for machining Unified "J form" threads, and continuous cuts.

TN 16ER320UNJ	T8030	–	160	95	150	480	40	–	–	32.0	0.8	0.8
TN 16ER280UNJ	T8030	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16ER240UNJ	T8030	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16ER200UNJ	T8030	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16ER180UNJ	T8030	–	160	95	150	480	40	–	–	18.0	0.8	0.8
TN 16ER160UNJ	T8030	–	160	95	150	480	40	–	–	16.0	1.5	1.2
TN 16ER120UNJ	T8030	–	160	95	150	480	40	–	–	12.0	1.5	1.2

Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												

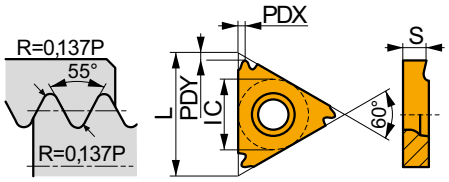
TN UNJ EL external, left-handed design, for machining Unified "J form" threads, and continuous cuts.

TN 16EL320UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	32.0	0.8	0.8
TN 16EL280UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	28.0	0.8	0.8
TN 16EL240UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	24.0	0.8	0.8
TN 16EL200UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	20.0	0.8	0.8
TN 16EL180UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	18.0	0.8	0.8
TN 16EL160UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	16.0	1.5	1.2
TN 16EL120UNJ	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	12.0	1.5	1.2

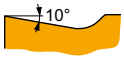
TN W EXT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



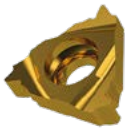
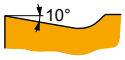
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												

TN W ER external, right-handed design, for machining Whitworth form threads, and continuous cuts.

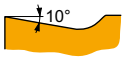
TN 16ER280W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	28.0	0.8	0.8
TN 16ER260W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	26.0	0.8	0.8
TN 16ER240W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	24.0	0.8	0.8
TN 16ER200W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	20.0	0.8	0.8
TN 16ER190W	**T8010**	–	■	175	◪	105	■	165		–	◪	40	–	–	19.0	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40	–	–	19.0	0.8	0.8
TN 16ER180W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	18.0	0.8	0.8
TN 16ER160W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	16.0	0.8	0.8
TN 16ER140W	**T8010**	–	■	175	◪	105	■	165		–	◪	40	–	–	14.0	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40	–	–	14.0	1.5	1.2
TN 16ER120W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	12.0	1.5	1.2
TN 16ER110W	**T8010**	–	■	175	◪	105	■	165		–	◪	40	–	–	11.0	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40	–	–	11.0	1.5	1.2
TN 16ER100W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	10.0	1.5	1.2
TN 16ER090W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	9.0	1.5	1.2
TN 16ER080W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	8.0	1.5	1.2
TN 22ER070W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	7.0	2.5	1.8
TN 22ER060W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	6.0	2.5	1.8
TN 22ER050W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40	–	–	5.0	2.5	1.7

Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												

TN W EL external, left-handed design, for machining Whitworth form threads, and continuous cuts.

TN 16EL280W	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16EL260W	**T8030**	–	160	95	150	480	40	–	–	26.0	0.8	0.8
TN 16EL240W	**T8030**	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16EL200W	**T8030**	–	160	95	150	480	40	–	–	20.0	0.8	0.8
TN 16EL190W	**T8030**	–	160	95	150	480	40	–	–	19.0	0.8	0.8
TN 16EL160W	**T8030**	–	160	95	150	480	40	–	–	16.0	0.8	0.8
TN 16EL140W	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16EL120W	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.2
TN 16EL110W	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2
TN 16EL100W	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16EL090W	**T8030**	–	160	95	150	480	40	–	–	9.0	1.5	1.2
TN 16EL080W	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 22EL070W	**T8030**	–	160	95	150	480	40	–	–	7.0	2.5	1.8
TN 22EL060W	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8
TN 22EL050W	**T8030**	–	160	95	150	480	40	–	–	5.0	2.5	1.7



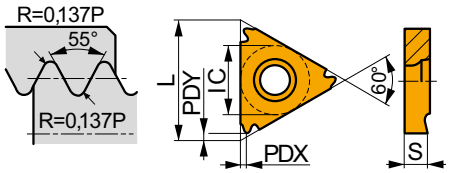
TN W-P1 ER pressed external, right-handed design, for machining Whitworth form threads, and continuous cuts.

TN 16ER190W-P1	**T8030**	–	160	95	150	480	40	–	–	19.0	0.8	0.8
TN 16ER140W-P1	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16ER110W-P1	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2

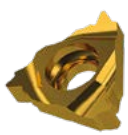
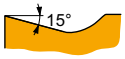
TN W INT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47
22	12.700	22.00	4.71



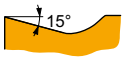
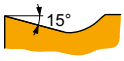
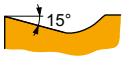
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												

TN W NR internal, right-handed design, for machining Whitworth form threads, and continuous cuts.

TN 11NR190W	**T8010**	–	175	105	165	–	40	–	–	19.0	0.8	0.8
	T8030	–	160	95	150	480	40	–	–	19.0	0.8	0.8
TN 11NR140W	**T8010**	–	175	105	165	–	40	–	–	14.0	0.9	0.7
	T8030	–	160	95	150	480	40	–	–	14.0	0.9	0.7
TN 16NR280W	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16NR260W	**T8030**	–	160	95	150	480	40	–	–	26.0	0.8	0.8
TN 16NR240W	**T8030**	–	160	95	150	480	40	–	–	24.0	0.8	0.8
TN 16NR200W	**T8030**	–	160	95	150	480	40	–	–	20.0	0.8	0.8

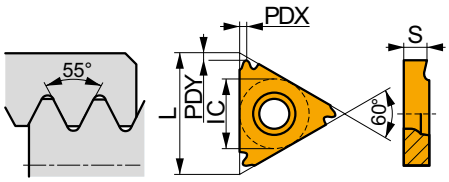
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		TP	TPI	PDX	PDY
			vc		vc		vc		vc		vc		vc					
		[mm]	[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[m/min]		[mm]		[mm]	[mm]
																		
			TN W NR internal, right-handed design, for machining Whitworth form threads, and continuous cuts.															
TN 16NR190W	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	–	19.0	0.8	0.8
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	–	19.0	0.8	0.8
TN 16NR160W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	16.0	0.8	0.8
TN 16NR140W	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	–	14.0	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	–	14.0	1.5	1.2
TN 16NR120W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	12.0	1.5	1.2
TN 16NR110W	**T8010**	–	■	175	◪	105	■	165		–	◪	40		–	–	11.0	1.5	1.2
	T8030	–	■	160	■	95	■	150	◪	480	◪	40		–	–	11.0	1.5	1.2
TN 16NR100W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	10.0	1.5	1.2
TN 16NR090W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	9.0	1.5	1.2
TN 16NR080W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	8.0	1.5	1.2
TN 22NR070W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	7.0	2.5	1.8
TN 22NR060W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	6.0	2.5	1.8
TN 22NR050W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	5.0	2.5	1.7
																		
			TN W NL internal, left-handed design, for machining Whitworth form threads, and continuous cuts.															
TN 11NL190W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	19.0	0.8	0.8
TN 11NL140W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	14.0	0.9	0.7
TN 16NL280W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	28.0	0.8	0.8
TN 16NL260W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	26.0	0.8	0.8
TN 16NL240W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	24.0	0.8	0.8
TN 16NL200W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	20.0	0.8	0.8
TN 16NL190W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	19.0	0.8	0.8
TN 16NL160W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	16.0	0.8	0.8
TN 16NL140W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	14.0	1.5	1.2
TN 16NL120W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	12.0	1.5	1.2
TN 16NL110W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	11.0	1.5	1.2
TN 16NL100W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	10.0	1.5	1.2
TN 16NL090W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	9.0	1.5	1.2
TN 16NL080W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	8.0	1.5	1.2
TN 22NL070W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	7.0	2.5	1.8
TN 22NL060W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	6.0	2.5	1.8
TN 22NL050W	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	5.0	2.5	1.7
																		
			TN W-P1 NR pressed internal, right-handed design, for machining Whitworth form threads, and continuous cuts.															
TN 11NR190W-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	19.0	0.8	0.8
TN 11NR140W-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	14.0	0.9	0.7
TN 16NR140W-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	14.0	1.5	1.2
TN 16NR110W-P1	**T8030**	–	■	160	■	95	■	150	◪	480	◪	40		–	–	11.0	1.5	1.2

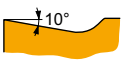
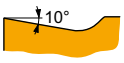
TN 55° PP EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71

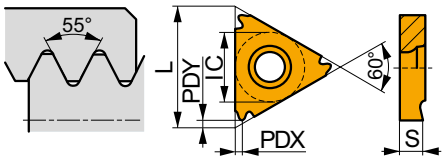


Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

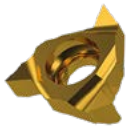
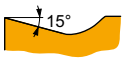
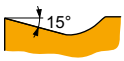
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
														
			TN W55 PP ER external, right-handed design, for machining Whitworth threads, and continuous cuts.											
TN 16ERA55	**T8030**	–	160	95	150	480	40	–	0.50	1.50	16	48	0.8	0.6
TN 16ERAG55	**T8010**	–	175	105	165	–	40	–	0.50	3.00	8	48	1.5	1.1
	T8030	–	160	95	150	480	40	–	0.50	3.00	8	48	1.5	1.1
TN 16ERG55	**T8030**	–	160	95	150	480	40	–	1.75	3.00	8	14	1.5	1.1
TN 22ERN55	**T8010**	–	175	105	165	–	40	–	3.50	5.00	5	7	2.5	1.8
	T8030	–	160	95	150	480	40	–	3.50	5.00	5	7	2.5	1.8
														
			TN W55 PP EL external, left-handed design, for machining Whitworth threads, and continuous cuts.											
TN 16ELA55	**T8030**	–	160	95	150	480	40	–	0.50	1.50	16	48	0.8	0.6
TN 16ELAG55	**T8030**	–	160	95	150	480	40	–	0.50	3.00	8	48	1.5	1.1
TN 16ELG55	**T8030**	–	160	95	150	480	40	–	1.75	3.00	8	14	1.5	1.1
TN 22ELN55	**T8030**	–	160	95	150	480	40	–	3.50	5.00	5	7	2.5	1.8

TN 55° PP INT

	IC [mm]	L [mm]	S [mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47
22	12.700	22.00	4.71



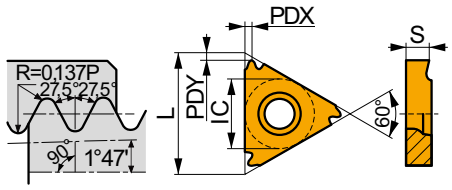
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TPN [mm]	TPX [mm]	TPIN	TPIX	PDX [mm]	PDY [mm]
														
			TN W55 PP NR internal, right-handed design, for machining Whitworth threads, and continuous cuts.											
TN 11NRA55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	1.50	16	48	0.8	0.6
TN 16NRA55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	1.50	16	48	0.8	0.6
TN 16NRAG55	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	0.50	3.00	8	48	1.5	1.1
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	3.00	8	48	1.5	1.1
TN 16NRG55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	1.75	3.00	8	14	1.5	1.1
TN 22NRN55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	3.50	5.00	5	7	2.5	1.8
														
			TN W55 PP NL internal, left-handed design, for machining Whitworth threads, and continuous cuts.											
TN 11NLA55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	1.50	16	48	0.8	0.6
TN 16NLA55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	1.50	16	48	0.8	0.6
TN 16NLAG55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	0.50	3.00	8	48	1.5	1.1
TN 16NLG55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	1.75	3.00	8	14	1.5	1.1
TN 22NLN55	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	3.50	5.00	5	7	2.5	1.8

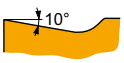
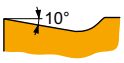
TN BSPT EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47



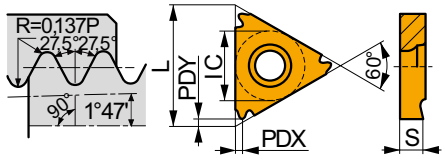
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			1 U E									
			TN BSPT ER external, right-handed design, for machining BSPT threads, and continuous cuts.									
TN 16ER280BSPT	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16ER190BSPT	**T8030**	–	160	95	150	480	40	–	–	19.0	1.5	1.2
TN 16ER140BSPT	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16ER110BSPT	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2
												
			1 U E									
			TN BSPT EL external, left-handed design, for machining BSPT threads, and continuous cuts.									
TN 16EL280BSPT	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16EL190BSPT	**T8030**	–	160	95	150	480	40	–	–	19.0	1.5	1.2
TN 16EL140BSPT	**T8030**	–	160	95	150	480	40	–	–	14.0	1.5	1.2
TN 16EL110BSPT	**T8030**	–	160	95	150	480	40	–	–	11.0	1.5	1.2

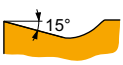
TN BSPT INT

PRAMET

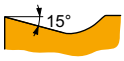
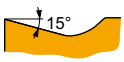
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			1 U E									
			TN BSPT NR internal, right-handed design, for machining BSPT threads, and continuous cuts.									
TN 16NR280BSPT	**T8030**	–	160	95	150	480	40	–	–	28.0	0.8	0.8
TN 16NR190BSPT	**T8030**	–	160	95	150	480	40	–	–	19.0	1.5	1.2

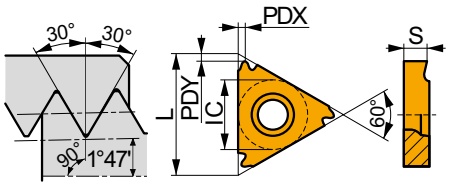
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	[mm]		[mm]	[mm]
												
			TN BSPT NR internal, right-handed design, for machining BSPT threads, and continuous cuts.									
TN 16NR140BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	14.0	1.5	1.2
TN 16NR110BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	11.0	1.5	1.2
												
			TN BSPT NL internal, left-handed design, for machining BSPT threads, and continuous cuts.									
TN 16NL280BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	28.0	0.8	0.8
TN 16NL190BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	19.0	1.5	1.2
TN 16NL140BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	14.0	1.5	1.2
TN 16NL110BSPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	11.0	1.5	1.2

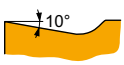
TN NPT EXT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47



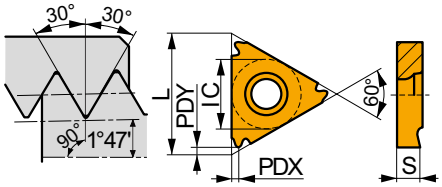
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	vc [m/min]	[mm]		[mm]	[mm]
												
			TN NPT ER external, right-handed design, for machining NPT threads, and continuous cuts.									
TN 16ER270NPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	27.0	0.8	0.7
TN 16ER180NPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	18.0	0.8	0.7
TN 16ER140NPT	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	–	14.0	1.5	1.1
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	14.0	1.5	1.1
TN 16ER115NPT	**T8010**	–	■ 175	◪ 105	■ 165	–	◪ 40	–	–	11.5	1.5	1.1
	T8030	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	11.5	1.5	1.1
TN 16ER080NPT	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.6	1.1

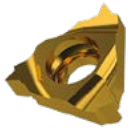
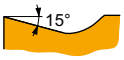
TN NPT INT

PRAMET

	IC [mm]	L [mm]	S [mm]
11	6.350	11.00	3.00
16	9.525	16.50	3.47



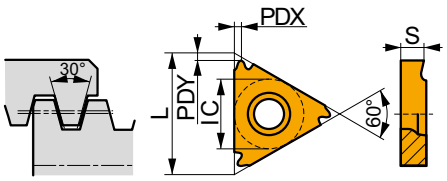
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
			1 U E									
TN NPT NR internal, right-handed design, for machining NPT threads, and continuous cuts.												
TN 11NR180NPT	**T8030**	–	160	95	150	480	40	–	–	18.0	0.8	0.7
TN 11NR140NPT	**T8030**	–	160	95	150	480	40	–	–	14.0	1.0	0.7
TN 16NR140NPT	**T8010**	–	175	105	165	–	40	–	–	14.0	1.5	1.1
	T8030	–	160	95	150	480	40	–	–	14.0	1.5	1.1
TN 16NR115NPT	**T8010**	–	175	105	165	–	40	–	–	11.5	1.5	1.1
	T8030	–	160	95	150	480	40	–	–	11.5	1.5	1.1
TN 16NR080NPT	**T8030**	–	160	95	150	480	40	–	–	8.0	1.6	1.1

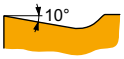
TN TR EXT

PRAMET

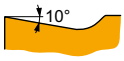
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
			1 U E									
TN TR ER external, right-handed design, for machining Trapezoidal threads, and continuous cuts.												
TN 16ER150TR	**T8030**	–	160	95	150	480	40	–	1.50	–	0.8	0.9
TN 16ER200TR	**T8030**	–	160	95	150	480	40	–	2.00	–	1.5	1.3
TN 16ER300TR	**T8030**	–	160	95	150	480	40	–	3.00	–	1.6	1.3
TN 22ER400TR	**T8030**	–	160	95	150	480	40	–	4.00	–	2.2	1.8
TN 22ER500TR	**T8030**	–	160	95	150	480	40	–	5.00	–	2.2	1.8

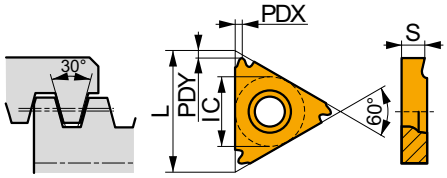
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
			TN TR EL external, left-handed design, for machining Trapezoidal threads, and continuous cuts.									
TN 16EL150TR	**T8030**	–	160	95	150	480	40	–	1.50	–	0.8	0.9
TN 16EL200TR	**T8030**	–	160	95	150	480	40	–	2.00	–	1.5	1.3
TN 16EL300TR	**T8030**	–	160	95	150	480	40	–	3.00	–	1.6	1.3
TN 22EL400TR	**T8030**	–	160	95	150	480	40	–	4.00	–	2.2	1.8
TN 22EL500TR	**T8030**	–	160	95	150	480	40	–	5.00	–	2.2	1.8

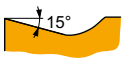
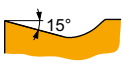
TN TR INT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



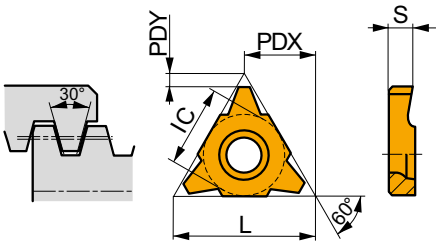
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
			TN TR NR internal, right-handed design, for machining Trapezoidal threads, and continuous cuts.									
TN 16NR150TR	**T8030**	–	160	95	150	480	40	–	1.50	–	0.8	0.9
TN 16NR200TR	**T8030**	–	160	95	150	480	40	–	2.00	–	1.5	1.3
TN 16NR300TR	**T8030**	–	160	95	150	480	40	–	3.00	–	1.6	1.3
TN 22NR400TR	**T8030**	–	160	95	150	480	40	–	4.00	–	2.2	1.8
TN 22NR500TR	**T8030**	–	160	95	150	480	40	–	5.00	–	2.2	1.8
												
			TN TR NL internal, left-handed design, for machining Trapezoidal threads, and continuous cuts.									
TN 16NL150TR	**T8030**	–	160	95	150	480	40	–	1.50	–	0.8	0.9
TN 16NL200TR	**T8030**	–	160	95	150	480	40	–	2.00	–	1.5	1.3
TN 16NL300TR	**T8030**	–	160	95	150	480	40	–	3.00	–	1.6	1.3
TN 22NL400TR	**T8030**	–	160	95	150	480	40	–	4.00	–	2.2	1.8
TN 22NL500TR	**T8030**	–	160	95	150	480	40	–	5.00	–	2.2	1.8

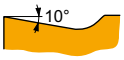
TN TR-S EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
22	12.700	22.00	4.60



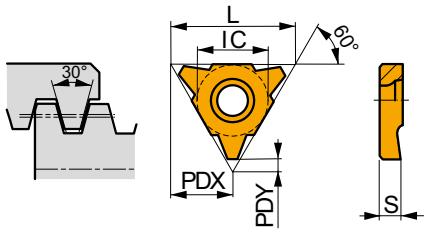
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			TN TR-S PP EN external, left and right-handed design for machining Trapezoidal threads, and continuous cuts.									
TN 22EN600TR	**T8030**	–	160	95	150	480	40	–	6.00	–	11.0	1.9
TN 22EN700TR	**T8030**	–	160	95	150	480	40	–	7.00	–	11.0	2.3

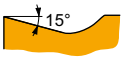
TN TR-S INT

PRAMET

	IC [mm]	L [mm]	S [mm]
22	12.700	22.00	4.60

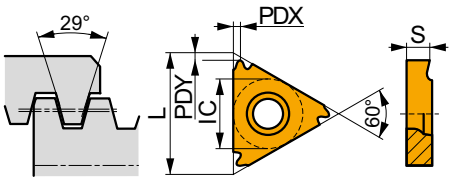


Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

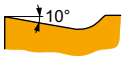
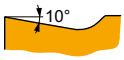
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
			TN M60-S PP NN internal, left and right-handed design, for machining Metric and Unified threads, and continuous cuts.									
TN 22NN600TR	**T8030**	–	160	95	150	480	40	–	6.00	–	11.0	1.9
TN 22NN700TR	**T8030**	–	160	95	150	480	40	–	7.00	–	11.0	2.3

TN ACME EXT

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71

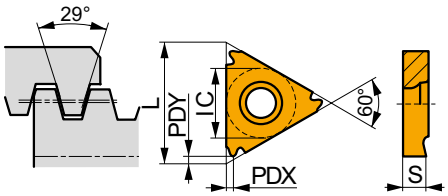


Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

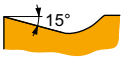
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
TN ACME ER external, right-handed design, for machining ACME threads, and continuous cuts.												
TN 16ER120ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	1.5	1.3
TN 16ER100ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16ER080ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 22ER060ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	2.5	2.0
TN 22ER050ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	5.0	2.3	2.0
												
TN ACME EL external, left-handed design, for machining ACME threads, and continuous cuts.												
TN 16EL120ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	1.5	1.3
TN 16EL100ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16EL080ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 22EL060ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	2.5	2.0
TN 22EL050ACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	5.0	2.3	2.0

TN ACME INT

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



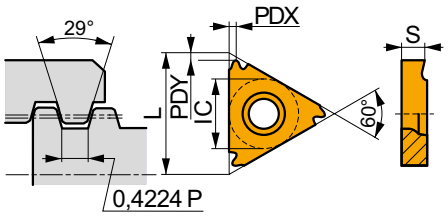
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
												
TN ACME NR internal, right-handed design, for machining ACME threads, and continuous cuts.												
TN 16NR120ACME	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.3
TN 16NR100ACME	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.3
TN 16NR080ACME	**T8030**[1)]	–	160	95	150	480	40	–	–	8.0	1.5	1.3
TN 22NR060ACME	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	2.0
TN 22NR050ACME	**T8030**	–	160	95	150	480	40	–	–	5.0	2.3	2.0
												
TN ACME NL internal, left-handed design, for machining ACME threads, and continuous cuts.												
TN 16NL120ACME	**T8030**	–	160	95	150	480	40	–	–	12.0	1.5	1.3
TN 16NL100ACME	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.3
TN 16NL080ACME	**T8030**[1)]	–	160	95	150	480	40	–	–	8.0	1.5	1.3
TN 22NL060ACME	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	2.0
TN 22NL050ACME	**T8030**	–	160	95	150	480	40	–	–	5.0	2.3	2.0

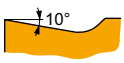
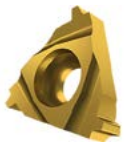
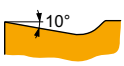
[1)] Toolholders have to be modified.

TN STACME EXT

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47

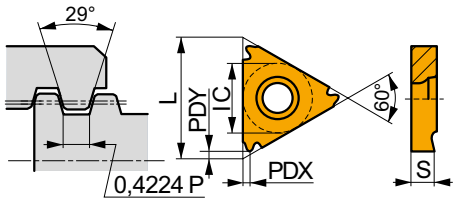


Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

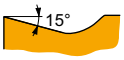
Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
TN STACME ER external, right-handed design, for machining Stub ACME threads, and continuous cuts.												
TN 16ER160STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	16.0	0.8	0.8
TN 16ER120STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	0.8	0.8
TN 16ER100STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16ER080STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 16ER060STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.4	1.3
												
TN STACME EL external, left-handed design, for machining Stub ACME threads, and continuous cuts.												
TN 16EL160STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	16.0	0.8	0.8
TN 16EL120STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	0.8	0.8
TN 16EL100STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16EL080STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 16EL060STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.4	1.3

TN STACME INT

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

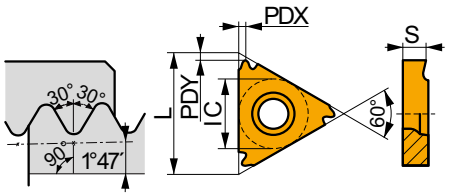
Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
TN STACME NR internal, right-handed, design for machining Stub ACME threads, and continuous cuts.												
TN 16NR160STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	16.0	0.8	0.8
TN 16NR120STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	0.8	0.8
TN 16NR100STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16NR080STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 16NR060STACME	**T8030**[1)]	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.3	1.3
												
TN STACME NL internal, left-handed design, for machining Stub ACME threads, and continuous cuts.												
TN 16NL160STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	16.0	0.8	0.8
TN 16NL120STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	12.0	0.8	0.8
TN 16NL100STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.3
TN 16NL080STACME	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.3
TN 16NL060STACME	**T8030**[1)]	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.3	1.3

[1)] Toolholders have to be modified.

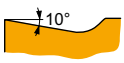
TN API RD EXT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47



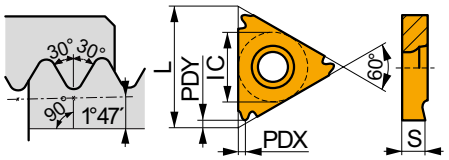
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
			TN API ER external, right-handed design, for machining API threads, and continuous cuts.									
TN 16ER100API-RD01	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16ER080API-RD01	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2

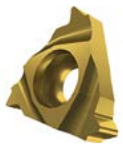
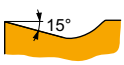
TN API RD INT

PRAMET

	IC	L	S
	[mm]	[mm]	[mm]
16	9.525	16.50	3.47



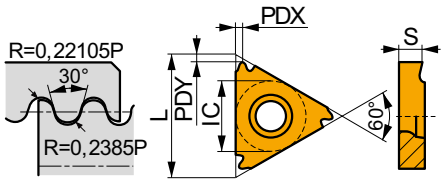
Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE	P	M	K	N	S	H	TP	TPI	PDX	PDY
			vc	vc	vc	vc	vc	vc				
		[mm]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[mm]		[mm]	[mm]
												
			TN API NR internal, right-handed design, for machining API threads, and continuous cuts.									
TN 16NR100API-RD01	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16NR080API-RD01	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2

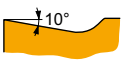
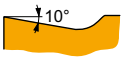
TN RD EXT

PRAMET

	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

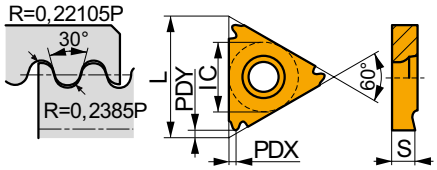
Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
			1 U E									
TN RD ER external, right-handed design, for machining Metric Round threads, and continuous cuts.												
TN 16ER100RD	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16ER080RD	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 16ER060RD	**T8030**[1)]	–	160	95	150	480	40	–	–	6.0	1.5	1.2
TN 22ER060RD	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8
			1 U E									
TN RD EL external, left-handed design, for machining Metric Round threads, and continuous cuts.												
TN 16EL100RD	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16EL080RD	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2
TN 16EL060RD	**T8030**[1)]	–	160	95	150	480	40	–	–	6.0	1.5	1.2
TN 22EL060RD	**T8030**	–	160	95	150	480	40	–	–	6.0	2.5	1.8

[1)] Toolholders have to be modified.

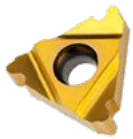
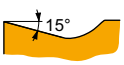
TN RD INT

PRAMET

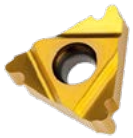
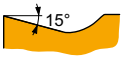
	IC [mm]	L [mm]	S [mm]
16	9.525	16.50	3.47
22	12.700	22.00	4.71



Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
			1 U E									
TN RD NR internal, right-handed design, for machining Metric Round threads, and continuous cuts.												
TN 16NR100RD	**T8030**	–	160	95	150	480	40	–	–	10.0	1.5	1.2
TN 16NR080RD	**T8030**	–	160	95	150	480	40	–	–	8.0	1.5	1.2

Suitability and starting values for cutting speed (vc). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P vc [m/min]	M vc [m/min]	K vc [m/min]	N vc [m/min]	S vc [m/min]	H vc [m/min]	TP [mm]	TPI	PDX [mm]	PDY [mm]
			 TN RD NR internal, right-handed design, for machining Metric Round threads, and continuous cuts.									
TN 16NR060RD	**T8030**[1]	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.5	1.2
TN 22NR060RD	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	2.5	1.8
			 TN RD NL internal, left-handed design, for machining Metric Round threads, and continuous cuts.									
TN 16NL100RD	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	10.0	1.5	1.2
TN 16NL080RD	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	8.0	1.5	1.2
TN 16NL060RD	**T8030**[1]	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	1.5	1.2
TN 22NL060RD	**T8030**	–	■ 160	■ 95	■ 150	◪ 480	◪ 40	–	–	6.0	2.5	1.8

[1] Toolholders have to be modified.

SE(RL)

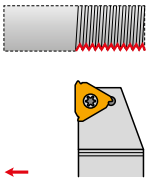
P M K N S H

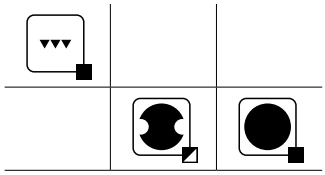
PRAMET

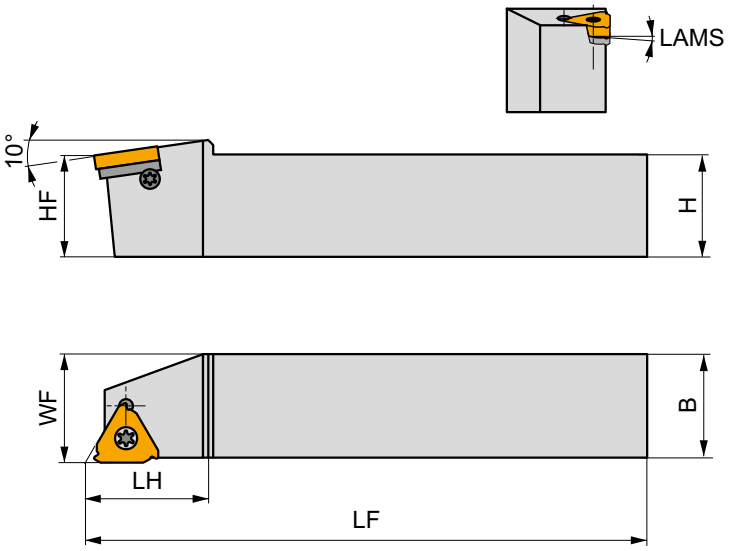
S

External Screw Clamped Threading Holder for TN 16 or 22 Insert

Right/Left hand screw lock tool holder for external threading with TN16 or 22 ER/EL inserts. Suited for threading in metric or inch profile. Also suited for shallow grooving. Body treated for longer tool life.







	Product	H [mm]	HF [mm]	B [mm]	WF [mm]	LF [mm]	LH [mm]	LAMS [°]		
R	**SER 2020 K 16**	20	20	20	20	125	22.5	–	GI068	Z12
	SER 2525 M 16	25	25	25	25	150	24	–	GI068	Z12
	SER 3225 P 16	32	32	25	25	170	24.5	–	GI068	Z12
	SER 2525 M 22-A	25	25	25	25	150	25.5	–	GI071	Z13
	SER 3225 P 22-A	32	32	25	25	170	25.5	–	GI071	Z13
L	**SEL 2020 K 16**	20	20	20	20	125	22.5	–	GI068	Z12
	SEL 2525 M 16	25	25	25	25	150	24	–	GI068	Z12
	SEL 3225 P 16	32	32	25	25	170	24.5	–	GI068	Z12
	SEL 2525 M 22-A	25	25	25	25	150	25.5	–	GI071	Z13
	SEL 3225 P 22-A	32	32	25	25	170	25.5	–	GI071	Z13

GI068	TN 16ER..	TN 16EL..
GI071	TN 22ER..	TN 22EL..

		Nm							
Z12	US 3512A-T15P	3.0	M 3.5	12.7	–	HS 0304	FLAG T15P	HXK 2.5	Page xx
Z13	US 4514A-T20	5.0	M 4.5	14	SP 0405	–	FLAG T20	–	Page xx

SE(RL)-S

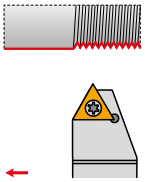
P M K N S H

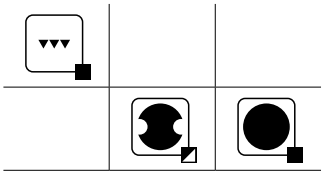
PRAMET

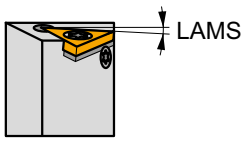
S

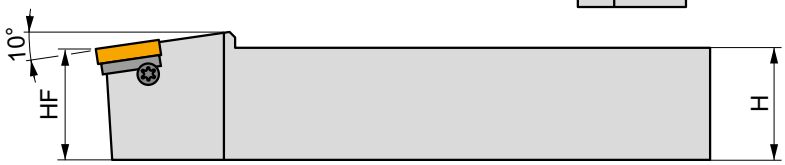
External Screw Clamped Threading Holder for TN 22 Neutral Insert

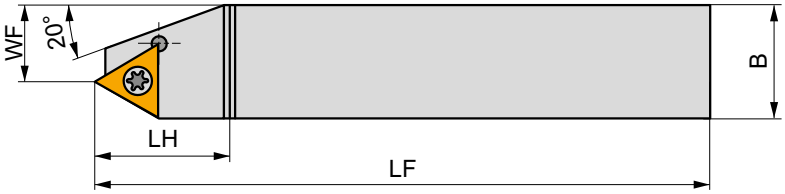
Right/Left hand screw lock tool holder for external large threading with TN22 EN insert. Suited for threading in metric or inch profile. Body treated for longer tool life.











	Product	H	HF	B	WF	LF	LH	LAMS		
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[°]		
R	SER-S 2525 M 22-A	25	25	25	14	150	30	–	GI086	Z15
	SER-S 3225 P 22-A	32	32	25	14	170	30	–	GI086	Z15
L	SEL-S 2525 M 22-A	25	25	25	14	150	30	–	GI086	Z15
	SEL-S 3225 P 22-A	32	32	25	14	170	30	–	GI086	Z15

GI086	TN 22EN..

Z15	US 4514A-T20	5.0 Nm	M 4.5	14	SP 0405	FLAG T20	Page xx

SI(RL)

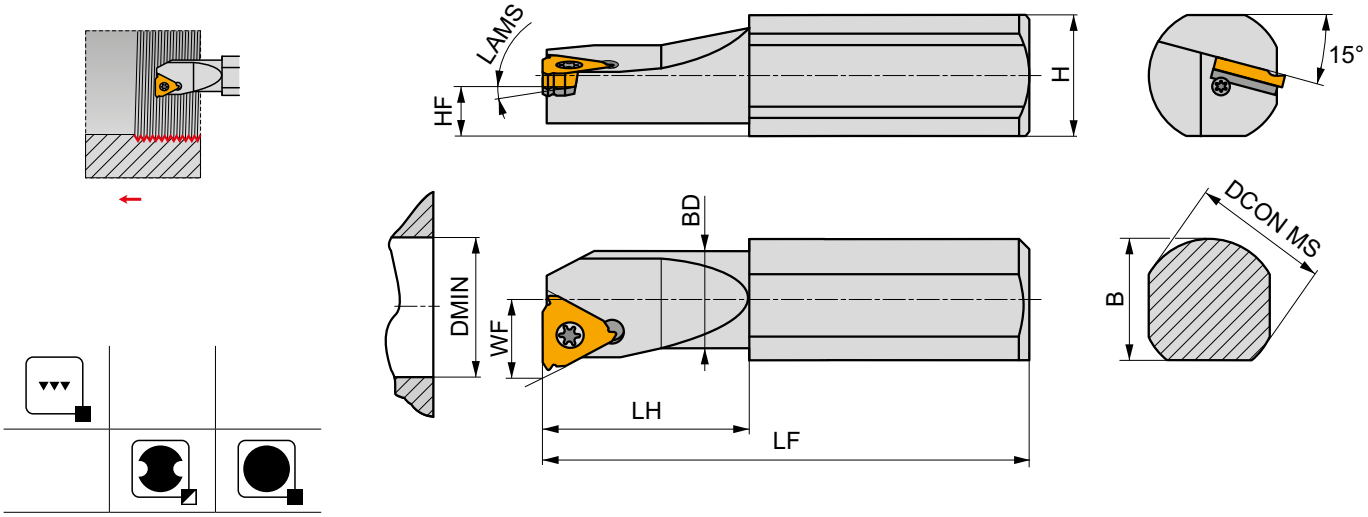
P M K N S H

PRAMET

S

Internal Screw Clamped Threading Holder for TN 11, 16 or 22 Insert

Right/Left hand screw lock boring bar for internal threading with TN11, 16 or 22 ER/EL inserts. Suited for threading in metric or inch profile. Minimum internal diameter Ø13 mm. Also suited for shallow grooving. Available with shank size Ø16 up to Ø40 mm. Body treated for longer tool life.



	Product	B [mm]	DCON MS [mm]	DMIN [mm]	BD [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LH [mm]	LAMS [°]			
R	SIR 0010 K 11-0	14.5	16	13	10	7.45	14	7	125	25	0	–	GI085	Z11
	SIR 0010 K 11-1	14.5	16	13	10	7.45	14	7	125	25	1	–	GI085	Z11
	SIR 0013 M 11-0	14.5	16	16	13	9	14	7	150	32	0	–	GI085	Z11
	SIR 0013 M 11-1	14.5	16	16	13	9	14	7	150	32	1	–	GI085	Z11
	SIR 1416 N 16-0	14	16	22	17	11.4	14.5	7.5	160	–	0	–	GI022	Z9
	SIR 1416 N 16-1	14	16	22	17	11.4	14.5	7.5	160	–	1	–	GI022	Z9
	SIR 1416 N 16-2	14	16	16.5	15.5	10.6	14.5	7.5	160	40	2	✓	GI022	Z10
	SIR 1820 P 16	18.5	20	27	21	13.85	18	9	170	–	–	–	GI022	Z12
	SIR 2325 Q 16	23.5	25	29	26	16.55	23	11.5	180	–	–	–	GI022	Z12
	SIR 2532 S 16	30	32	36	32	19.75	25	12.5	250	–	–	–	GI022	Z12
	SIR 2532 S 22-2	30	32	25	25	16.65	25	12.5	250	80	2	✓	GI076	Z14
	SIR 2532 S 22-A	30	32	36	32	21.65	25	12.5	250	–	–	–	GI076	Z13
	SIR 3240 T 22-A	38	40	48	40	25.85	32	16	300	–	–	–	GI076	Z13
L	SIL 0010 K 11-0	14.5	16	13	10	7.45	14	7	125	25	0	–	GI085	Z11
	SIL 0010 K 11-1	14.5	16	13	10	7.55	14	7	125	25	1	–	GI085	Z11
	SIL 0013 M 11-0	14.5	16	16	13	9	14	7	150	32	0	–	GI085	Z11
	SIL 0013 M 11-1	14.5	16	16	13	9	14	7	150	32	1	–	GI085	Z11
	SIL 1416 N 16-0	14	16	22	17	11.4	14.5	7.5	160	–	0	–	GI022	Z9
	SIL 1416 N 16-1	14	16	22	17	11.4	14.5	7.5	160	–	1	–	GI022	Z9
	SIL 1416 N 16-2	14	16	16.5	15.5	10.6	14.5	7.5	160	40	2	✓	GI022	Z10
	SIL 1820 P 16	18.5	20	27	21	13.85	18	9	170	–	–	–	GI022	Z12
	SIL 2325 Q 16	23.5	25	29	26	16.55	23	11.5	180	–	–	–	GI022	Z12
	SIL 2532 S 16	30	32	36	32	19.75	25	12.5	250	–	–	–	GI022	Z12
	SIL 2532 S 22-2	30	32	25	25	16.65	25	12.5	250	80	2	✓	GI076	Z14
	SIL 2532 S 22-A	30	32	36	32	21.65	25	12.5	250	–	–	–	GI076	Z13
	SIL 3240 T 22-A	38	40	48	40	25.85	32	16	300	–	–	–	GI076	Z13

GI022	TN 16NR..	TN 16NL..
GI076	TN 22NR..	TN 22NL..
GI085	TN 11NR..	TN 11NL..

Z10	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	–
Z11	US 2506-T07P	0.9	M 2.5	6.3	–	–	FLAG T07P	–	–
Z12	US 3512A-T15P	3.0	M 3.5	12.7	–	HS 0304	FLAG T15P	HXK 2.5	Page xx
Z13	US 4514A-T20	5.0	M 4.5	14	SP 0405	–	FLAG T20	–	Page xx
Z14	US 4514A-T20	5.0	M 4.5	14	–	–	FLAG T20	–	–
Z9	US 3510A-T15P	3.0	M 3.5	10.6	–	–	FLAG T15P	–	P-16

SI(RL)-S

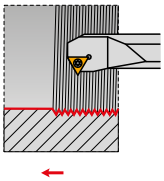
P M K N S H

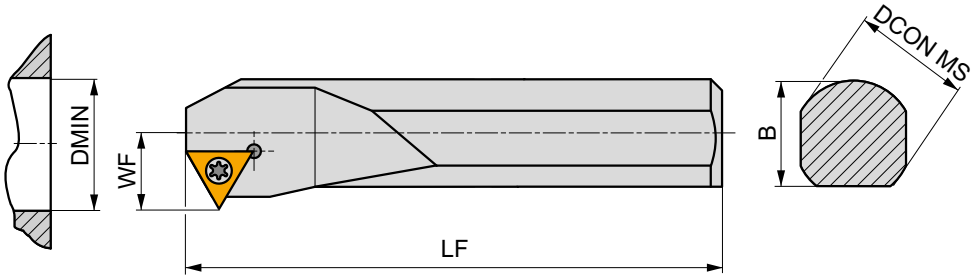
PRAMET

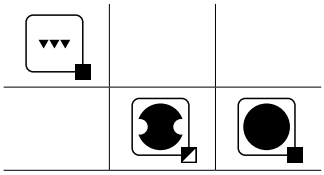
S

Internal Screw Clamped Threading Holder for TN 22 Neutral Insert

Right/Left hand screw lock boring bar for internal large threading with TN22 EN insert. Suited for threading in metric or inch profile. Minimum internal Ø39 mm. Available with shank size Ø32 up to Ø40 mm. Body treated for longer tool life.







	Product	B [mm]	DCON MS [mm]	DMIN [mm]	WF [mm]	H [mm]	HF [mm]	LF [mm]	LAMS [°]		
R	**SIR-S 2532 S 22-A**	30	32	39	22.3	25	12.5	250	–	GI107	Z15
	SIR-S 3240 T 22-A	38	40	48	27	32	16	300	–	GI107	Z15
L	**SIL-S 2532 S 22-A**	30	32	39	22.3	25	12.5	250	–	GI107	Z15
	SIL-S 3240 T 22-A	38	40	48	27	32	16	300	–	GI107	Z15

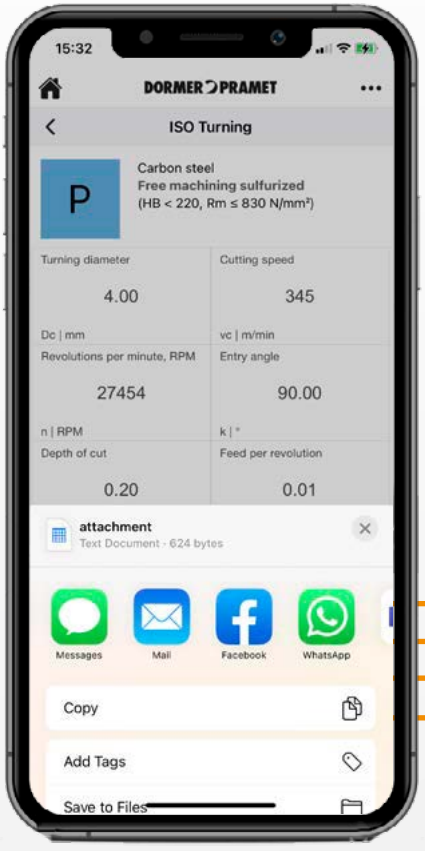
GI107	TN 22NN..

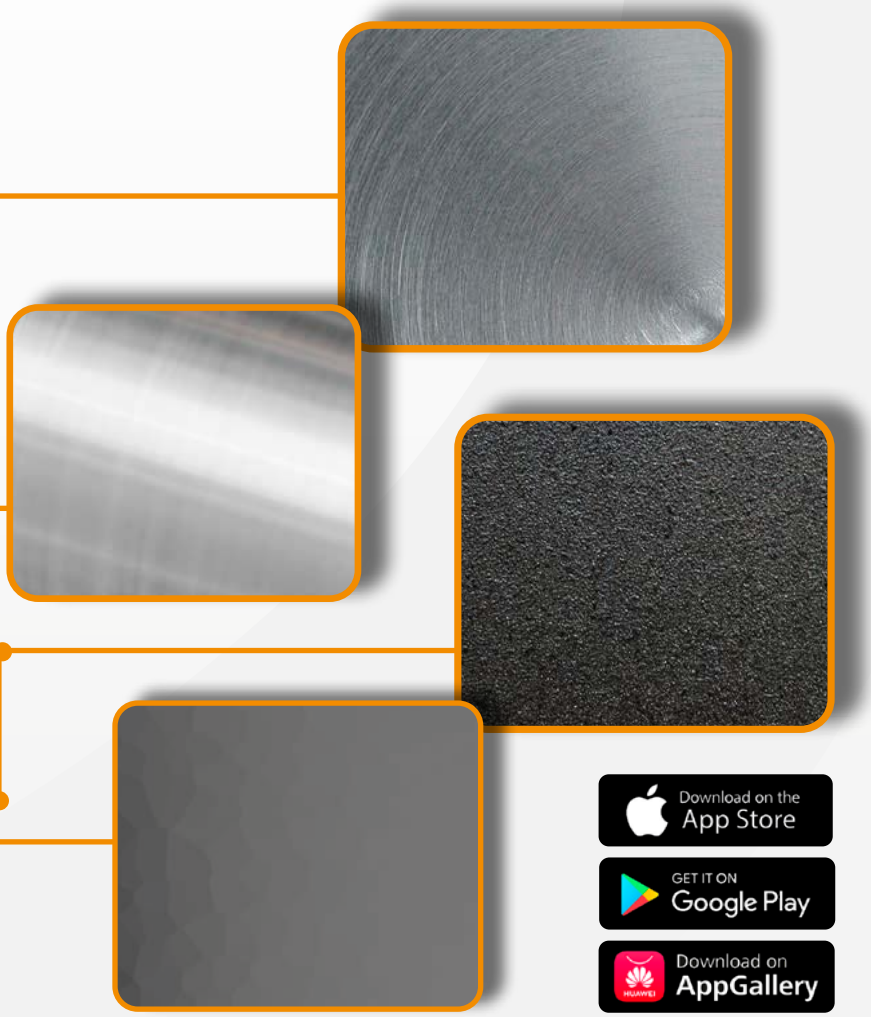
Z15	US 4514A-T20	5.0 Nm	M 4.5	14	SP 0405	FLAG T20	Page xx

DORMER PRAMET

EVERY MATERIAL

Machining steel, stainless steel, cast iron, super-alloys or non-ferrous materials, all are covered within our calculator app. Download it from your app store today. **Simply Reliable.**





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BROACHING

BROACHING – ICONS OVERVIEW

General icons

■	Primary use
◪	Possible use

▼▼▼	Finishing – very good surface quality
▼▼	Medium machining – good surface quality
▼	Roughing – unlimited surface roughness

●	Suitable for stable working conditions
●	Suitable for unstable working conditions
●	Suitable for very unstable working conditions

Features

	Internal shaping
U	Universal wide range option
F	Sharp edge

Other

Nm	Clamping torque of screw [Nm]
	Internal supply of coolant

BROACHING INSERTS – NAVIGATOR

HZ

531

HZ-2

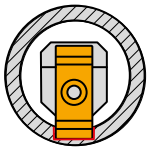
532

BROACHING HOLDERS – NAVIGATOR

PHZ

	HZ
	03 04 05 06 08 10 12
Ø 9,5 Ø 24,7	
533	531

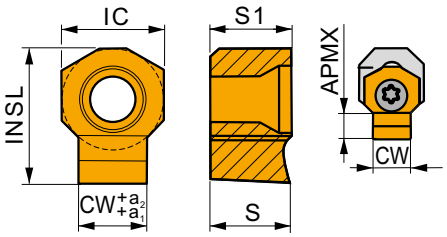
PHZ-2



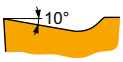
	HZ/2..
	14 16 18 20
Ø 44 Ø 58	
534	532

HZ

	IC	INSL	APMX	S	S1	CW
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
0604-30	6.000	7.5	1.60	4.66	4.76	3.00
0604-40	6.000	8.0	2.50	4.66	4.76	4.00
0604-50	6.000	8.0	3.00	4.66	4.76	5.00
1006-60	10.000	13.5	4.20	6.25	6.35	6.00
1006-80	10.000	13.5	5.20	6.25	6.35	8.00
1309-100	13.000	18.5	6.20	9.40	9.53	10.00
1309-120	13.000	18.5	7.20	9.40	9.53	12.00



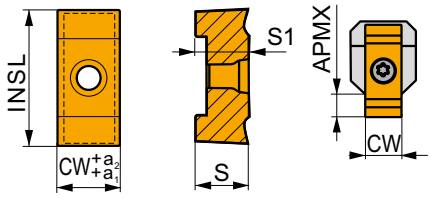
Suitability and starting values for cutting speed (vc) and feed (fz). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		CW	CWTOLL	CWTOLU
			vc	fz	vc	fz	vc	fz	vc	fz	vc	fz	vc	fz			
		[mm]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[mm]	[mm]	[mm]
			U F														
			Positive geometry for broaching (one cutting edge).														
HZ 1006-60 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	6.00	0.07	0.14
HZ 1006-60 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	6.00	0.03	0.08
HZ 1006-60 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	6.00	0.00	0.01
HZ 1006-60 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	6.00	-0.04	-0.01
HZ 1006-80 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	8.00	0.08	0.17
HZ 1006-80 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	8.00	0.04	0.10
HZ 1006-80 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	8.00	0.00	0.02
HZ 1006-80 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	8.00	-0.05	-0.02
HZ 1309-100 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	10.00	0.08	0.17
HZ 1309-100 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	10.00	0.04	0.10
HZ 1309-100 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	10.00	0.00	0.02
HZ 1309-100 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	10.00	-0.05	-0.02
HZ 1309-120 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	12.00	0.10	0.21
HZ 1309-120 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	12.00	0.05	0.12
HZ 1309-120 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	12.00	0.00	0.02
HZ 1309-120 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	12.00	-0.06	-0.02
HZ90 0604-30 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	3.00	0.06	0.12
HZ90 0604-30 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	3.00	0.02	0.06
HZ90 0604-30 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	3.00	0.00	0.01
HZ90 0604-30 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	3.00	-0.03	-0.01
HZ90 0604-40 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	4.00	0.07	0.14
HZ90 0604-40 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	4.00	0.03	0.08
HZ90 0604-40 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	4.00	0.00	0.01
HZ90 0604-40 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	4.00	-0.04	-0.01
HZ90 0604-50 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	5.00	0.07	0.14
HZ90 0604-50 D10	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	5.00	0.03	0.08
HZ90 0604-50 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	5.00	0.00	0.01
HZ90 0604-50 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	5.00	-0.04	-0.01

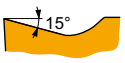
HZ-2

PRAMET

	INSL	APMX	S	S1	CW
	[mm]	[mm]	[mm]	[mm]	[mm]
14-14	36.0	8.00	13.90	14.00	14.00
16-16	36.0	9.00	13.90	14.00	16.00
18-18	45.0	12.00	15.90	16.00	18.00
20-20	45.0	13.00	15.90	16.00	20.00



Suitability and starting values for cutting speed (vc) and feed (fz). Refer to our Machining Calculator app for further calculations.

Product		RE	P		M		K		N		S		H		CW	CWTOLL	CWTOLU
			vc	fz	vc	fz	vc	fz	vc	fz	vc	fz	vc	fz			
		[mm]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[m/min]	[mm/tooth]	[mm]	[mm]	[mm]
																	
			Positive geometry for broaching (two cutting edges).														
HZ/2 14-14 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	14.00	0.10	0.21
HZ/2 14-14 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	14.00	0.00	0.02
HZ/2 14-14 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	14.00	-0.06	-0.02
HZ/2 16-16 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	16.00	0.10	0.21
HZ/2 16-16 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	16.00	0.00	0.02
HZ/2 16-16 P9	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	16.00	-0.06	-0.02
HZ/2 18-18 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	18.00	0.10	0.21
HZ/2 18-18 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	18.00	0.00	0.02
HZ/2 18-18 P9	**333TN**	–	50	0.10	30	0.10	45	0.10	–	–	–	–	–	–	18.00	-0.06	-0.02
HZ/2 20-20 C11	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	20.00	0.11	0.24
HZ/2 20-20 H7	**333TN**	–	50	0.10	30	0.09	45	0.10	–	–	–	–	–	–	20.00	0.00	0.02
HZ/2 20-20 P9	**333TN**	–	50	0.10	30	0.10	45	0.10	–	–	–	–	–	–	20.00	-0.07	-0.02

PHZ

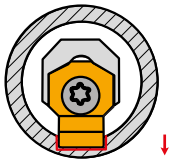
P M K N S H

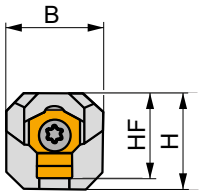
PRAMET

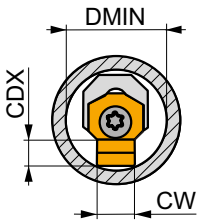
S

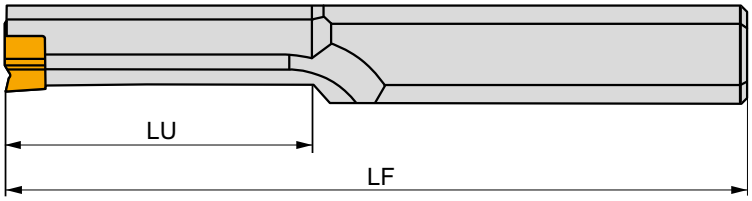
Int. Broaching Tool Holder for Small Diameters with Single-Sided HZ Inserts

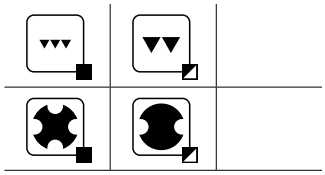
Internal tool holder for broaching up to 12 mm width. Minimum internal diameter Ø9.5 mm. Body treated for longer tool life.











	Product	H [mm]	HF [mm]	B [mm]	OAL [mm]	LU [mm]	CW [mm]	DMIN [mm]	CDX [mm]	kg		
N	**PHZ 90 1104-06**	11.3	9	8.5	160	35	3.00	9.5	1.6	0.17	GI239	SH21
	PHZ 90 1107-06	11.3	10	7	200	60	–	–	–	0.19	GI240	SH21
	PHZ 90 1111-06	11.3	12	–	200	60	–	–	–	0.19	GI240	SH21
	PHZ 1512-10	15.5	16.2	–	220	–	–	–	–	0.40	GI224	SH22
	PHZ 2014-13	20.6	21.5	–	250	–	–	–	–	0.65	GI225	SH23

GI224	HZ 1006-60	HZ 1006-80
GI225	HZ 1309-100	HZ 1309-120
GI239	HZ90 0604-30	–
GI240	HZ90 0604-40	HZ90 0604-50

SH21	DVF 3593	0.8	M 2.5	10	TX207PLUS
SH22	DVF 2260	3.6	M 4	15	TX215PLUS
SH23	5513 020-14	8.5	M 6	18	TX225PLUS

PHZ-2

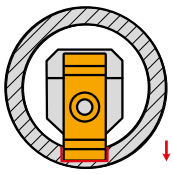
P M K N S H

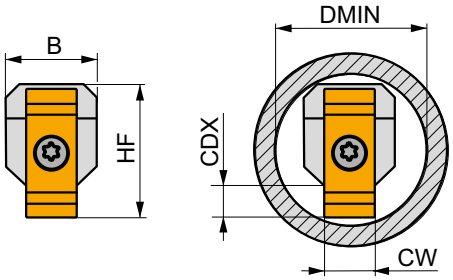
PRAMET

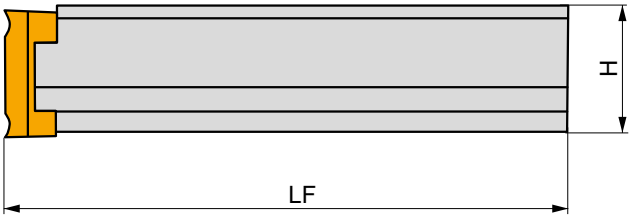
S

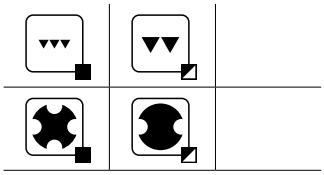
Int. Broaching Tool Holder for Larger Diameters with Double-Sided HZ Inserts

Internal tool holder for broaching up to 20 mm width. Minimum internal diameter Ø44 mm. Body treated for longer tool life.









	Product	H [mm]	HF [mm]	B [mm]	OAL [mm]	CW [mm]	DMIN [mm]	CDX [mm]	kg		
N	**PHZ/2 3625-14**	36	37.5	25	300	–	44	–	1.86	GI235	SH23
	PHZ/2 4832-18	48	50	32	400	–	58	–	2.00	GI241	SH24

GI235	HZ/2 14-14	HZ/2 16-16
GI241	HZ/2 18-18	HZ/2 20-20

		Nm			
SH23	5513 020-14	8.5	M 6	18	TX225PLUS
SH24	5513 021-03	13.0	M 8	22	DMN 3124

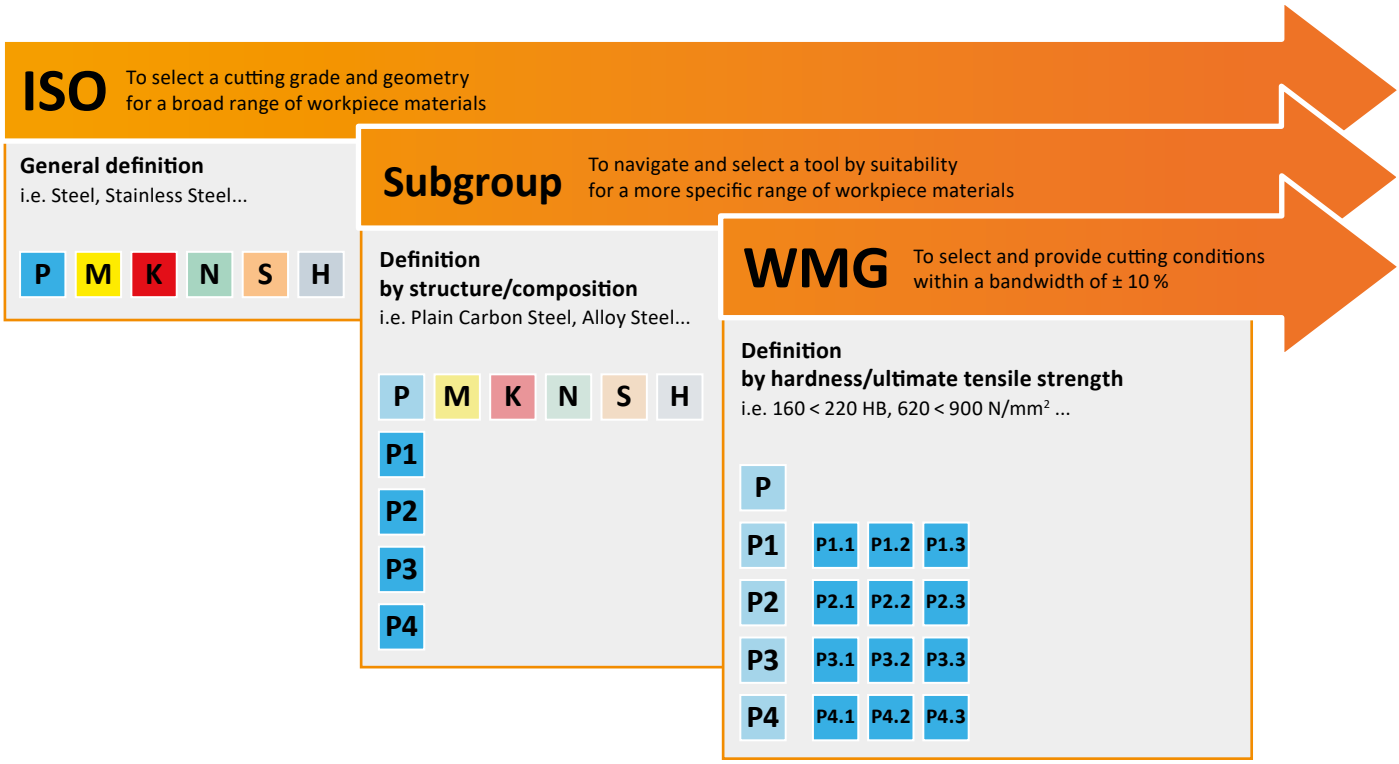
DORMER PRAMET

HELP IS AT HAND

Our techincal support team are always at hand to help with any technical questions or queries you have about our technical apps. Use the contact us details to reach out to your local Dormer Pramet sales office. **Simply Reliable.**

GENERAL
TECHNICAL INFORMATION

WORKPIECE MATERIAL GROUP (WMG)



ABOUT DORMER PRAMET'S WORKPIECE MATERIAL CLASSIFICATION

Workpiece **M**aterial **G**roups (**WMG**) are used to support easy and reliable selection of the right cutting tool and starting values for machining conditions in particular applications.
Dormer Pramet classifies workpiece materials into six different coloured groups;

- **Blue**: Steel and cast steel (P-group)
- **Yellow**: Stainless steel (M-group)
- **Red**: Cast iron (K-group)
- **Green**: Non-ferrous metals (N-group)
- **Brown**: High-temperature alloys (S-group)
- **Grey**: Hardened materials (H-group)

Each of these are divided into subgroups on the basis of their structure and/or composition. For example, P-group steel and cast steel is split into four subgroups, namely;

- **P1** – Free machining steel
- **P2** – Plain carbon steel
- **P3** – Alloy steel
- **P4** – Tool steel

A final division includes material properties, such as hardness and ultimate tensile strength. This is to provide our customers with a complete tool recommendation, including starting values for cutting speed and feed.
The table on the next page includes a description of each workpiece material group, as well as examples of commonly used designations.

ISO group		Subgroup		WMG (Work Material Group)		k_{vg}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
P	**Steel and cast steel** (steels with alloy content ≤ 10 % and a hardness of < 45 HRC)	P1	Free machining steel (carbon steels with increased machinability)	P1.1	Free machining sulfurized carbon steel with a hardness of < 220 HB	1.33	AISI **1108,** EN **15S22,** DIN **1.0723,** SS **1922,** ČSN **11120,** BS **210A15,** UNE **F.210F,** GB **Y15,** AFNOR **10F1,** GOST **A30,** UNI **CF10S20**
				P1.2	Free machining sulfurized and phosphorized carbon steel with a hardness of < 180 HB	1.49	AISI **1211,** EN **11SMn30,** DIN **1.0715,** SS **1912,** ČSN **11109,** BS **230M7,** UNE **F.2111,** GB **Y15,** AFNOR **S250,** GOST **A40G,** UNI **CF9SMn28**
				P1.3	Free machining sulfurized/phosphorized and leaded carbon steel with a hardness of < 160 HB	1.53	AISI **12L13,** EN **11SMnPb30,** DIN **1.0718,** SS **1914,** ČSN **12110,** BS **210M16,** UNE **F.2114,** GB **Y15Pb,** AFNOR **S250Pb,** GOST **AS35G2,** UNI **CF10SPb20**
		P2	Plain carbon steel (steels comprised of mainly iron and carbon)	P2.1	Plain low carbon steel containing < 0.25 % C with a hardness of < 180 HB	1.14	AISI **1015,** EN **C15,** DIN **1.0401,** SS **1350,** ČSN **11301 ,** BS **080A15,** UNE **F.111,** GB **15,** AFNOR **C18RR,** GOST **St2ps,** UNI **Fe360**
				P2.2	Plain medium carbon steel containing < 0.55 %C with a hardness of < 240 HB	1.00	AISI **1030,** EN **C30,** DIN **1.0528,** SS **1550,** ČSN **12031,** BS **080M32,** UNE **F.1130,** GB **30,** AFNOR **AF50C30,** GOST **30G,** UNI **Fe590**
				P2.3	Plain high carbon steel containing > 0.55 % C, with a hardness of < 300 HB	0.89	AISI **1060,** EN **C60,** DIN **1.0601,** SS **1655,** ČSN **12061,** BS **080A62,** UNE **F513,** GB **60,** AFNOR **1C60,** GOST **60G,** UNI **C60**
		P3	Alloy steel (carbon steels with an alloying content ≤ 10 %)	P3.1	Alloy steel with a hardness of < 180 HB	0.92	AISI **5015,** EN **16Mo3,** DIN **1.5415,** SS **2912,** ČSN **15020,** BS **1501-240,** UNE **F.2601,** GB **16Mo,** AFNOR **15D3,** GOST **15M,** UNI **16Mo3KW**
				P3.2	Alloy steel with a hardness of 180 – 260 HB	0.74	AISI **4140,** EN **42CrMo4,** DIN **1.7225,** SS **2244,** ČSN **15142,** BS **708M40,** UNE **F.8232,** GB **42CrMo,** AFNOR **42CD4,** GOST **40ChFA,** UNI **42CrMo4**
				P3.3	Alloy steel with a hardness of 260 – 360 HB	0.63	AISI **4140,** EN **42CrMo4,** DIN **1.7225,** SS **2244,** ČSN **15142,** BS **708M40,** UNE **F.8232,** GB **42CrMo,** AFNOR **42CD4,** GOST **40ChFA,** UNI **42CrMo4**
		P4	Tool steel (special alloy steel for tools, dies and molds)	P4.1	Tool steel with a hardness of < 26 HRC	0.55	AISI **D2,** EN **X155CrVMo12-1,** DIN **1.2370,** SS **2736,** ČSN **19573,** BS **BD2,** UNE **F.520A,** GB **Cr12Mo1V1,** AFNOR **Z160CDV12,** GOST **Ch12MF,** UNI **X155CrVMo121KU**
				P4.2	Tool steel with a hardness of 26 – 39 HRC	0.47	AISI **D2,** EN **X155CrVMo12-1,** DIN **1.2370,** SS **2736,** ČSN **19573,** BS **BD2,** UNE **F.520A,** GB **Cr12Mo1V1,** AFNOR **Z160CDV12,** GOST **Ch12MF,** UNI **X155CrVMo121KU**
				P4.3	Tool steel with a hardness of 39 – 45 HRC	0.38	AISI **D2,** EN **X155CrVMo12-1,** DIN **1.2370,** SS **2736,** ČSN **19573,** BS **BD2,** UNE **F.520A,** GB **Cr12Mo1V1,** AFNOR **Z160CDV12,** GOST **Ch12MF,** UNI **X155CrVMo121KU**

ISO group		Subgroup		WMG (Work Material Group)		k_{vG}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
M	**Stainless steel** (corrosion resistant steels with ≥ 11 % chromium content)	**M1**	Ferritic stainless steel (straight chromium non-hardenable alloys)	**M1.1**	Stainless steel, ferritic with a hardness of < 160 HB	**1.22**	AISI **S429,** EN **X7Cr14,** DIN **1.4001,** SS **2326,** BS **434S17,** UNE **F.3401,** AFNOR **Z8C12,** GOST **08Ch13,** UNI **X6CrTi12**
				M1.2	Stainless steel, ferritic with a hardness of 160 – 220 HB	**1.03**	AISI **446,** EN **X10CrAl24,** DIN **1.4762,** SS **2322,** ČSN **17113,** BS **430S17,** UNE **F.3154,** GB **10Cr17,** AFNOR **Z10CAS24,** GOST **12Ch17,** UNI **X16Cr26**
		M2	Martensitic stainless steel (straight chromium hardenable alloys)	**M2.1**	Stainless steel, martensitic with a hardness of < 200 HB	**1.08**	AISI **430F,** EN **X14CrMoS17,** DIN **1.4104,** SS **2383,** ČSN **17140,** BS **410S21,** UNE **F.3117,** AFNOR **Z10CF17,** UNI **X10CrS17**
				M2.2	Stainless steel, martensitic with a hardness of 200 – 280 HB	**0.89**	AISI **440C,** EN **X105CrMo17,** DIN **1.4125,** SS **2385,** ČSN **17023,** BS **425C11,** UNE **F.3402,** GB **102Cr17Mo,** AFNOR **Z100CD17,** GOST **95Ch18,** UNI **GX6CrNi 13 04**
				M2.3	Stainless steel, martensitic with a hardness of 280 – 380 HB	**0.75**	AISI **420,** EN **X45Cr13,** DIN **1.4034,** ČSN **17029,** BS **425C11,** UNE **F.3405,** AFNOR **Z44C14,** GOST **20X17H12,** UNI **X30Cr13**
		M3	Austenitic stainless steel (chromium-nickel and chromium-nickel-manganese alloys)	**M3.1**	Stainless steel, austenitic with a hardness of < 200 HB	**1.00**	AISI **304,** EN **X5CrNi18-12,** DIN **1.4303,** SS **2352,** ČSN **17249,** BS **305S17,** UNE **F.3513,** GB **10Cr18Ni12,** AFNOR **Z8CN18.12,** UNI **X7CrNi18 10**
				M3.2	Stainless steel, austenitic with a hardness of 200 – 260 HB	**0.86**	AISI **309,** EN **X15CrNiSi20-12,** DIN **1.4828,** ČSN **17251,** BS **309S24,** UNE **F.3312,** GB **1Cr23Ni13,** AFNOR **Z15CNS20.12,** GOST **20Ch20N14S2,** UNI **16CrNi23 14**
				M3.3	Stainless steel, austenitic with a hardness of 260 – 300 HB	**0.77**	AISI **5848,** EN **X45CrNiW18-9,** DIN **1.4873,** BS **331S40,** UNE **F.3211,** AFNOR **Z35CNWS14-4,** UNI **X45CrNiW 18 9**
		M4	Super-austenitic, Duplex or Precipitation Hardening stainless steel (austenitic alloys with > 20 % Ni, austenitic-ferritic microstructure or precipitation hardened)	**M4.1**	Stainless steel, austenitic-ferritic or super-austenitic with a hardness of < 300 HB	**0.75**	AISI **329,** EN **X1-NiCrMoCU25-20-5,** DIN **1.4539,** SS **2562,** ČSN **17265,** BS **318S13,** UNE **F.3552,** GB **022Cr25NiMo2N,** AFNOR **Z1NCDU25.20**
				M4.2	Stainless steel, precipitation hardening austenitic with a hardness of 300 – 380 HB	**0.64**	AISI **631 (17-7PH),** EN **X7CrNiAL17-7,** DIN **1.4568,** SS **2388,** ČSN **17465 ,** BS **301S13,** UNE **F.3217,** GB **07Cr17Ni7Al,** AFNOR **29CNA17-07,** GOST **09Ch17N7Ju1,** UNI **X53CrMnNiN21 9**

ISO group		Subgroup		WMG (Work Material Group)		k_{vG}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
K	**Cast Iron** (castings of iron and carbon alloys with > 2 % carbon content)	**K1**	Gray iron (GG) (iron-carbon castings with a lamellar graphite microstructure)	**K1.1**	Gray iron, ferritic or ferritic-pearlitic with a hardness of < 180 HB	**1.35**	ASTM **A48 Grade 20 (F11401),** EN-**JL-100,** DIN **GG-10 (0.6010),** SS **0110,** STN **422410,** BS **Grade 150,** UNE **FG10,** GB **HAT 100,** AFNOR **Ft10D,** GOST **SC 10,** UNI **G10**
				K1.2	Gray iron, ferritic-pearlitic or pearlitic with a hardness of 180 – 240 HB	**1.00**	ASTM **A48 Grade 30 (F12101),** EN-**JL-1030,** DIN **GG-20 (0.6020),** SS **0120,** STN **422420,** BS **Grade 220,** UNE **FG20,** GB **HT200,** AFNOR **Ft20D,** GOST **СЧ20,** UNI **G20**
				K1.3	Gray iron, pearlitic with a hardness of 240 – 280 HB	**0.75**	ASTM **A48 Grade 50 (F13501),** EN-**JL-1060,** DIN **GG-35 (0.6035),** SS **0135,** STN **422435,** BS **Grade 350,** UNE **FG35,** GB **HAT300,** AFNOR **Ft35D,** GOST **SC35,** UNI **G35**
		K2	Malleable iron (GTS/GTW) (heat-treated iron-carbon castings with a graphite-free microstructure)	**K2.1**	Malleable iron, ferritic with a hardness of < 160 HB	**1.39**	ASTM **A602 Grade M3210 (F20000),** EN-**JM-1130,** DIN **GTS-35 (0.8135),** SS **0815,** BS **B340/12,** UNE **Type A,** AFNOR **MN 35-10,** GOST **КЧ35-10**
				K2.2	Malleable iron, ferritic or pearlitic with a hardness of 160 – 200 HB	**1.13**	ASTM **A602 Grade M4504 (F20001),** EN-**JM-1040,** DIN **GTS-50-05 (0.8045),** BS **P50-05,** AFNOR **MB 45-7**
				K2.3	Malleable iron, pearlitic with a hardness of 200 – 240 HB	**0.90**	ASTM **A602 Grade M7002 (F20004),** EN-**JM-1140,** DIN **GTS-45 (0.8145),** SS **0854,** STN **422540,** BS **P 45-06,** UNE **Typ B,** AFNOR **MP 50-5,** GOST **КЧ45-7,** UNI **GMN 45**
		K3	Ductile iron (GGG) (iron-carbon castings with a nodular graphite microsturcture)	**K3.1**	Ductile (nodular/spheriodal) iron, ferritic with a hardness of < 180 HB	**1.23**	ASTM **A536 Grade 60-40-18 (F32800),** EN-**JS-1030,** DIN **GGG-40 (0.7040),** SS **0717,** STN **422304,** BS **420/12,** UNE **FGE 42-12,** GB **QT 400,** AFNOR **FGS 400-12,** GOST **ВЧ40**
				K3.2	Ductile (nodular/spheriodal) iron, ferritic or pearlitic with a hardness of 180 – 220 HB	**0.94**	ASTM **A536 Grade 80-55-06 (F33800),** EN-**JS-1050,** DIN **GGG-50 (0.7050),** SS **0727,** STN **422305,** BS **500/7,** UNE **FGE 50-7,** GB **QT 500-7,** AFNOR **FGS 500-7,** GOST **ВЧ50**
				K3.3	Ductile (nodular/spheriodal) iron, pearlitic with a hardness of 220 – 260 HB	**0.76**	ASTM **A536 Grade 100-70-03 (F34800),** EN-**JS-1060,** DIN **GGG-60 (0.7060),** SS **0732,** STN **422306,** BS **600/3,** UNE **FG70-2,** GB **QT 600-3,** AFNOR **FGS 600-3,** GOST **ВЧ60**
		K4	Austenitic or austempered ductile iron (Ni-Resist/ADI) (iron-carbon alloy castings with an austenitic or ausferrite microstructure)	**K4.1**	Austenitic cast iron with a hardness of < 180 HB	**1.14**	ASTM **A436 Type 1 (L-NiCuCr 15 6 2, F41000),** EN-**JL-3011,** DIN **GGL-NiMn 13 7 (0.6652),** SS **0523,** BS **Grade F1,** AFNOR **FGL-Ni13Mn7,** GOST **S-NiMn 13 7**
				K4.2	Austenitic cast iron with a hardness of 180 – 240 HB	**0.86**	ASTM **A439 Type D-2B (S-NiCr 20 3, F43001),** EN-**JS-3021,** DIN **GGG-NiMn 23 4,** SS **0776,** BS **Grade S2M,** AFNOR **FGS Ni23 Mn4,** GOST **ЧН19Х3Ш**
				K4.3	Austempered ductile iron with a hardness of 240 – 280 HB	**0.63**	ASTM **A897 Grade 110-70-11**
				K4.4	Austempered ductile iron with a hardness of 280 – 320 HB	**0.54**	ASTM **A897 Grade 125-80-10,** EN-**JS-1100,** DIN **GGG-90 (5.3400)**
				K4.5	Austempered ductile iron with a hardness of 320 – 360 HB	**0.45**	ASTM **A897 Grade 2 (150-110-07),** EN-**JS-1110,** DIN **GGG-100 (5.3403)**
		K5	Compacted graphite iron (CGI) (iron-carbon castings with a vermicular graphite structure)	**K5.1**	Vermicular, compacted graphite iron with a hardness of < 180 HB	**1.29**	ASTM **A842 Grade 300,** EN-**GJV-300,** DIN **GGV 30,** GOST **ЧВГ30,**
				K5.2	Vermicular, compacted graphite iron with a hardness of 180 – 220 HB	**0.97**	ASTM **A842 Grade 350,** EN-**GJV-350,** DIN **GGV 35 (5.2200),** GOST **ЧВГ30,**
				K5.3	Vermicular, compacted graphite iron with a hardness of 220 – 260 HB	**0.75**	ASTM **A842 Grade 450,** EN-**GJV-450,** DIN **GGV 45,** GOST **ЧВГ45,**

ISO group		Subgroup		WMG (Work Material Group)		k_{vG}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
N	**Non-ferrous metals** (metals including alloys without an appreciable amount of iron)	N1	Wrought aluminium	N1.1	Pure aluminium and wrought aluminium alloys with a hardness of < 60 HB	1.33	UNS **A91200,** EN **AL99.6,** DIN **3.0205,** SS **4010,** STN **424009,** BS **1C,** UNE **L-3001,** GB **L5,** AFNOR **A4,** GOST **АДС,** UNI **3567**
				N1.2	Wrought aluminium alloys with a hardness of 60 – 100 HB	1.00	UNS **A93004,** EN **AlMn0.5Mg0.5,** DIN **3.0505,** SS **4054,** STN **424432,** BS **N31,** UNE **L-3831,** GB **LF2,** AFNOR **A-M1,** GOST **АМц,** UNI **3568**
				N1.3	Wrought aluminium alloys with a hardness of 100 – 150 HB	0.67	UNS **A95083,** EN **AlMg4.5Mn0.7,** DIN **3.3547,** SS **4140,** STN **424415,** BS **N8,** UNE **L-3321,** GB **AlMg4.5Mn,** AFNOR **A-G4.5Mn,** GOST **Amg 4.5,** UNI **P-AlMg4.4**
		N2	Cast aluminium	N2.1	Cast aluminium alloys with a hardness of < 75 HB	0.67	UNS **A02080,** EN **AlCu4S,** BS **LM11,** STN **424331,** UNE **Al Si1Cu,** GOST **AMg5K,** UNI **G-AlSi7Mg**
				N2.2	Cast aluminium alloys with a hardness of 75 – 90 HB	0.60	UNS **A02420,** EN **AlCu4Ni2Mg2,** SS **AlSi7MgFe,** BS **LM6,** STN **424519,** UNE **Al-7SiMg,** AFNOR **A-S7G,** GOST **AK7,** UNI **G-AlSi7Mg**
				N2.3	Cast aluminium alloys with a hardness of 90 < 140 HB	0.43	UNS **A03360,** EN **G-ALCu4NiMg2,** SS **ALSi10Mg,** STN **424336,** BS **LM 30,** AFNOR **A-S10G,** UNI **G-AlSi9Mg**
		N3	Copper or copper alloys	N3.1	Free-cutting copper-alloys materials with excellent machining properties	0.70	UNS **C14700,** EN **CuPb1P,** DIN **2.1498,** STN **423214,** BS **C111,** AFNOR **CuZn35Pb2,** GOST **L63-3,** UNI **CuS(P0.01)**
				N3.2	Short-chip copper-alloys with good to moderate machining properties	0.41	UNS **C81540,** EN **CuNi2SiCr,** DIN **2.0857,** STN **423220,** BS **NS113,** UNE **CuSn12,** AFNOR **CuZn40,** GOST **L60,** UNI **P-CuZn-40**
				N3.3	Electrolytic copper and long-chip copper-alloys with moderate to poor machining properties	0.21	UNS **C10100,** EN **CuAg0.1,** DIN **2.1203,** SS **5010,** UNE **CUSi3Mn1,** AFNOR **Cu-C2,** GOST **M1f,** UNI **Cu-OF**
		N4	Polymers (synthetic or semi-synthetic materials)	N4.1	Thermoplastic polymers	0.70	ABS, Acryl, Duraplast, Elastomer, EP, Epoxid, FEP, Fluor, Gummi, Kautschuk, Latex, MF, MPF, PA, PAI, PC, PE, PEEK, PEI, PES, PET, PF, Phenolharze, PI, PMMA, Polyamide, Polyester, Polyolefine, Polysulfon, POM, PP, PPE, PPS, PS, PSU, PTFE, PU, PUR, PVDF, SAN, SI, Styrol, UF, Ureol
				N4.2	Thermosetting polymers	0.27	Aramid, Epoxy, Fluoropolymer, Mehacrylate, Melamine, Phenolic, Polyester, Polyimide, Polymethacrylimide, Polyurethane
				N4.3	Reinforced polymers or composites	0.29	CFK, GFK, GMT, Honeycomb, Kevlar, LFT, Organo, SMC
		N5	Graphite	N5.1		1.0	CGM-1, CM-00, GM-10, GM-11, GR030, GR030PI, GR060, GR060PI, GR125, MC-01, MC-01RO, MC-03, MC-03M, IG11, IG-15, IG-32, IG-43, IG-45, IG-70, ISEM-1, ISEM-2, ISEM-3, R8340, R8500X, Technograph 15, Technograph 30, ISO-63, EDM C-3, EDM1, EDM3, ISO-90, ISO-93, ISO-95, R8510, R8650,

ISO group		Subgroup		WMG (Work Material Group)		k_{vG}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
S	**High-temperature alloys** (superalloys with high temperature stength and corrosion resistant surpassing that of stainless steel)	**S1**	Titanium or titanium alloys	**S1.1**	Titanium or titanium alloys, with a hardness of <200 HB	1.94	UNS **R50250 (Grade 1),** EN **Ti 99.6,** DIN **3.7035,** BS **TA.2,** UNE **Ti-Po2,** AFNOR **T-40,** GOST **BT1-00,** AISI **R50250, 3.7025, T35, 2TA1, R50400, 3.7035, 2TA2,**
				S1.2	Titanium alloys, with a hardness of 200 – 280 HB	1.72	UNS **R56404 (Grade 29),** EN **Ti2Cu,** DIN **3.7124,** BS **TA.21,** UNE **Ti-P11,** AFNOR **T-U2 ,** AISI **TA6V, Ti-6Al-4V, Ti 10.2.3, Ti5553**
				S1.3	Titanium alloys, a hardness of 280 – 360 HB	1.44	UNS **R54250 (Grade 38),** EN **TiAl6V4,** DIN **3.7165,** ČSN **TiAl6VELI,** BS **TA. 13,** UNE **Ti-P63,** AFNOR **T-A6V,** GOST **BT6,** AISI **TA6V, Ti-6Al-4V, Ti 10.2.3, Ti5553**
		S2	Fe-based high-temperature alloys	**S2.1**	High-temperature Fe-based alloys with a hardness of <200 HB	1.33	UNS **N08801 (Incoloy 801),** EN **X8 NiCrAlTi31-21,** DIN **1.4959,** BS **NA 15,** AFNOR **Z8NC33-21,** AISI **A-286, Discaloy, Haynes 556, Iconel 909, Greek Ascolloy**
				S2.2	High-temperature Fe-based alloys with a hardness of 200 – 280 HB	1.17	UNS **N19907,** EN **X6NiCrTiMoVB25-15-2,** DIN **1.4980,** SS **2570,** BS **HR52,** AFNOR **Z6NCTDV25.15B,** GOST **36HXTЮ,** AISI **A-286, Discaloy, Haynes 556, Iconel 909, Greek Ascolloy**
		S3	Ni-based high-temperature alloys	**S3.1**	High-temperature Ni-based alloys with a hardness of <280 HB	1.00	UNS **A09706 (Inconel 706),** EN **NiCr25FeAl,** DIN **2.4856,** BS **HR 6,** ČSN **Inconel 625,** UNE **F.3313,** GB **1Cr16Ni35,** AFNOR **NC22FeDNB,** GOST **XH38BT,** AISI **Inconel 718, 706 Waspalloy, Udimet 720, Inconel 625**
				S3.2	High-temperature Ni-based alloys with a hardness of 280 – 360 HB	0.83	UNS **N07001,** EN **NiCr20Co13Mo4Ti3Al,** DIN **2.4654,** BS **HR 2,** ČSN **Waspaloy,** AFNOR **NCKD 20ATV,** GOST **XH80TБЮ,** AISI **Inconel 718, 706 Waspalloy, Udimet 720, Inconel 625**
		S4	Co-based high-temperature alloys	**S4.1**	High-temperature Co-based alloys with a hardness of <240 HB	0.78	UNS **R30016 (Stellite 6b),** EN **CoCr20W15Ni,** DIN **2.4964,** AFNOR **KC 20 WN,** GOST **ЛК52,** AISI **Haynes 25, Stellite 21, 31**
				S4.2	High-temperature Co-based alloys with a hardness of 240 – 320 HB	0.67	UNS **R30016 (Stellite 6b),** EN **CoCr20W15Ni,** DIN **2.4964,** AFNOR **KC 20 WN,** GOST **ЛК52,** AISI **Haynes 25, Stellite 21, 31**

ISO group		Subgroup		WMG (Work Material Group)		k_{vG}	Examples of material (AISI, EN, DIN, ČSN, GB, SS, STN, BS, UNE, AFNOR, ASTM, GOST, UNS, UNI, ...)
H	**Hardened materials** (any engineering metal with a hardness > 45 HRC)	**H1**	Chilled cast iron	**H1.1**	Chilled cast iron with a hardness of < 440 HB	**1.52**	UNS **F45001,** EN-**GJS-1050-6,** DIN **5.3406,** SS **0512,** BS **Grade 2A**
		H2	Hardened cast iron	**H2.1**	Hardened cast iron with a hardness < 55 HRC	**0.90**	UNS **F45003,** EN-**GJS-1400-1,** DIN **5.3405,** SS **0457,** BS **Grade 3D**
				H2.2	Hardened cast iron with a hardness > 55 HRC	**0.77**	UNS **F45003,** EN **G-X260NiCr4-2,** DIN **0.9620,** SS **0466,** BS **Grade S**
		H3	Hardened steel < 55 HRC	**H3.1**	Hardened steel with a hardness of < 51 HRC	**1.00**	AISI **4135,** EN **34CrMo4,** DIN **1.7220,** SS **2234,** STN **415131,** BS **198,** UNE **F.1250,** GB **35CrMo,** AFNOR **35CD4,** GOST **АС38ХГМ,** UNI **35CrMo4KB**
				H3.2	Hardened steel with a hardness of 51 – 55 HRC	**0.82**	AISI **4135,** EN **34CrMo4,** DIN **1.7220,** SS **2234,** STN **415131,** BS **198,** UNE **F.1250,** GB **35CrMo,** AFNOR **35CD4,** GOST **АС38ХГМ,** UNI **35CrMo4KB**
		H4	Hardened steel > 55 HRC	**H4.1**	Hardened steel with a hardness of 55 – 59 HRC	**0.64**	UNS **T31501,** EN **100MnCrW4,** DIN **1.2510,** SS **2140,** STN **419413,** BS **BO1,** UNE **F.5220,** GB **9CrWMn,** AFNOR **90MWCrV5,** GOST **9ХВГ,** UNI **95MNWCr5KU**
				H4.2	Hardened steel with a hardness of > 59 HRC	**0.54**	UNS **T31501,** EN **100MnCrW4,** DIN **1.2510,** SS **2140,** STN **419413,** BS **BO1,** UNE **F.5220,** GB **9CrWMn,** AFNOR **90MWCrV5,** GOST **9ХВГ,** UNI **95MNWCr5KU**

Correction factors for specific type of operation C_{VcO}

X.V / a_p	FF			F			M			R			HR		
	0.5			1.5			2.5			5.0			12.0		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
f ⇨	0.05	0.08	0.10	0.10	0.15	0.20	0.20	0.30	0.40	0.40	0.60	0.80	0.80	1.00	1.30
Chip-breakers for fine finishing (FF, FF2…)	1.15	1.00	0.95	0.85	0.80	–	–	–	–	–	–	–	–	–	–
Chip-breakers for finishing (NF, SF..)	–	–	1.20	1.05	1.00	1.05	1.00	0.90	–	–	–	–	–	–	–
Chip-breakers for medium machining (FM, M, NM, NMR, SM…)	–	–	–	–	–	1.15	1.10	1.00	0.95	0.85	–	–	–	–	–
Chip-breakers for roughing (RM, NRM, NR, R…)	–	–	–	–	–	–	–	–	1.25	1.10	1.00	0.95	0.65	–	–
Chip-breakers for heavy roughing (HR, HR2, NR2, OR…) for 45 min durability	–	–	–	–	–	–	–	–	–	1.25	1.20	1.15	1.05	1.00	0.95

Correction factors for required durability C_{VcT}

minutes	10	15	20	30	45	60
General machining operations (fine finishing up to roughing)	1.13	1.00	0.93	0.84	0.76	0.71
Heavy machining operations (heavy roughing)	–	–	–	1.10	1.00	0.93

Additional correction factors C_{VcA}

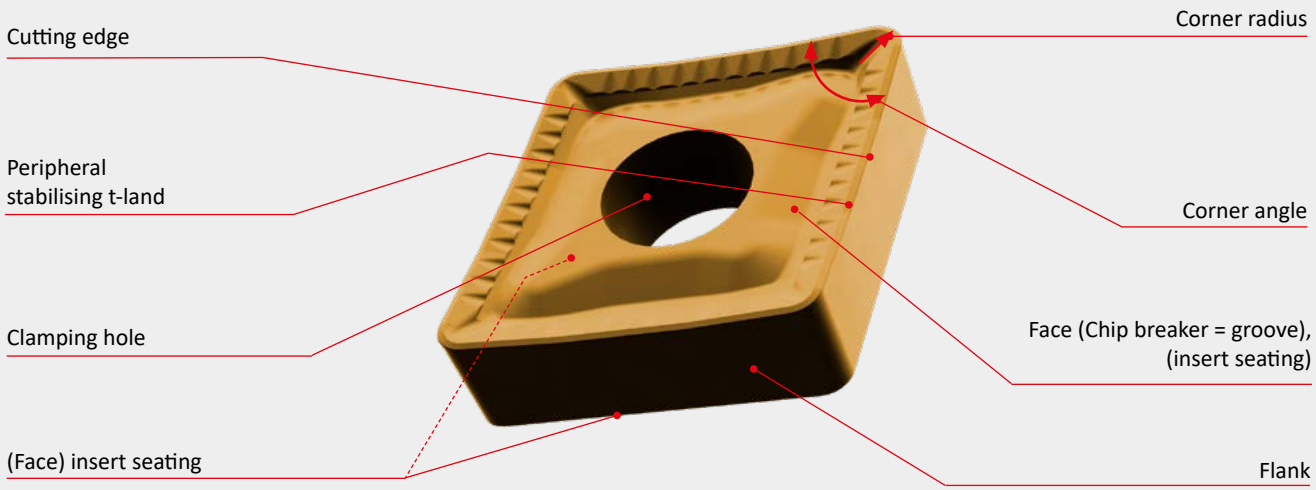
Machining environment	C_{VcA}
Condition of the work-material (hard skin due to forging or casting)	0.70
Internal turning	0.75
Parting and grooving (radial)	0.88
Face grooving	0.80
Interrupted cut	0.80
Unstable machining conditions	0.85
Common machining conditions	1.00
Stable machining conditions	1.20

Resulting corrected cutting speed v_{cC}

$$v_{cC} = v_c \cdot k_{vG} \cdot C_{VcO} \cdot C_{VcT} \cdot C_{VcA}$$

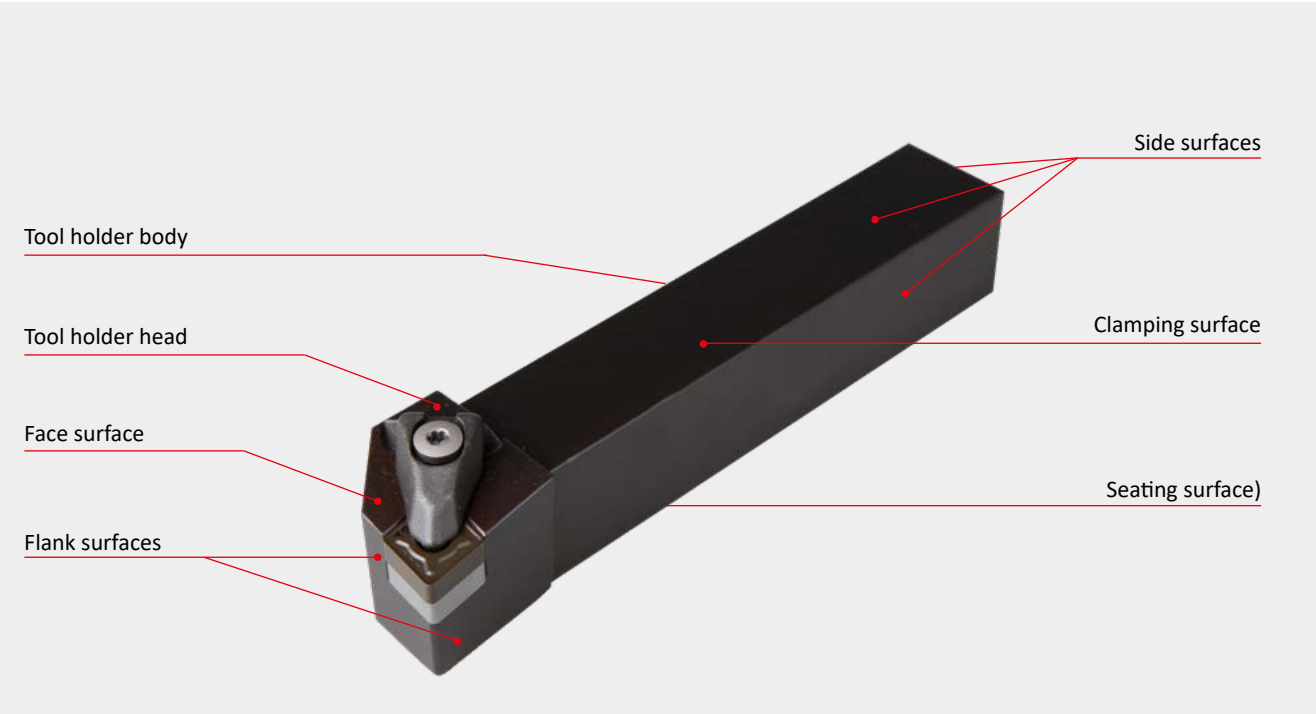
k_{vG} – coefficient of used material
v_c – starting speed from catalogue page

Insert parts



Corner radius – determines in most cases the recommended minimum depth of cut and, together with the feed, also determines the achieved roughness.
The **Cutting edge** is the intersection of face and flank surfaces. Its longitudinal roughness is one of the first evaluation criteria when assessing an insert.
The **insert corner angle** is very important with regard to the usable cutting edge length, resistance in the interrupted cut, heat dissipation from the cutting point, etc.
The **peripheral stabilising t-land** is an area located after the cutting edge. Its width is very often variable and its angle also changes regularly. In most cases, the width of the t-land, together with the adjustment angle at which the insert works, is a limiting factor for specifying the minimum feed.
The **chip breaker** – together with the t-land determines the application area (narrow grooves – finishing and materials with short chip, wide grooves – mostly roughing operations and tough materials).
The **clamping hole** – if there is no hole, the insert will definitely be designed for the ISO C clamping system. If the hole is cylindrical, the insert is designed for the ISO P, M, D + clamping systems (in nearly all cases the flank angle is 0°. If the hole is trumpet-shaped and the flank angle is positive, the insert is single-sided and is designed for the ISO S clamping system. If the hole is conical and is the same on both sides of the insert, then it is most likely a tangential insert (double-sided).
The **insert seating** – if it is formed by the same relief as the face surface, the insert is double-sided, if it is different, the insert is single-sided. It must be assessed with regard to the planned load or the type of cut. (the size and distance of the radius and the cutting edges).

Tool holder parts



The turning tool consists of two basic parts:

1) the body consisting of:
- seating surface
- clamping surface
- side surfaces (which can further be provided with adjusting screws)

Note: For external turning, the tool holder body is usually a square cross section (square or rectangle). For internal turning, the cross section of the holder body is circular and, for larger cross sections, it is provided with adjusting surfaces. But the holder body can also be formed by a special type of shank, such as CAPTO (PSC) or HSK

2) the head with:
- face
- flank surfaces

The tool holder head also includes a clamping system into which the inserts are inserted
From the face side (for radial inserts) or from the flank surface side (for tangential inserts)

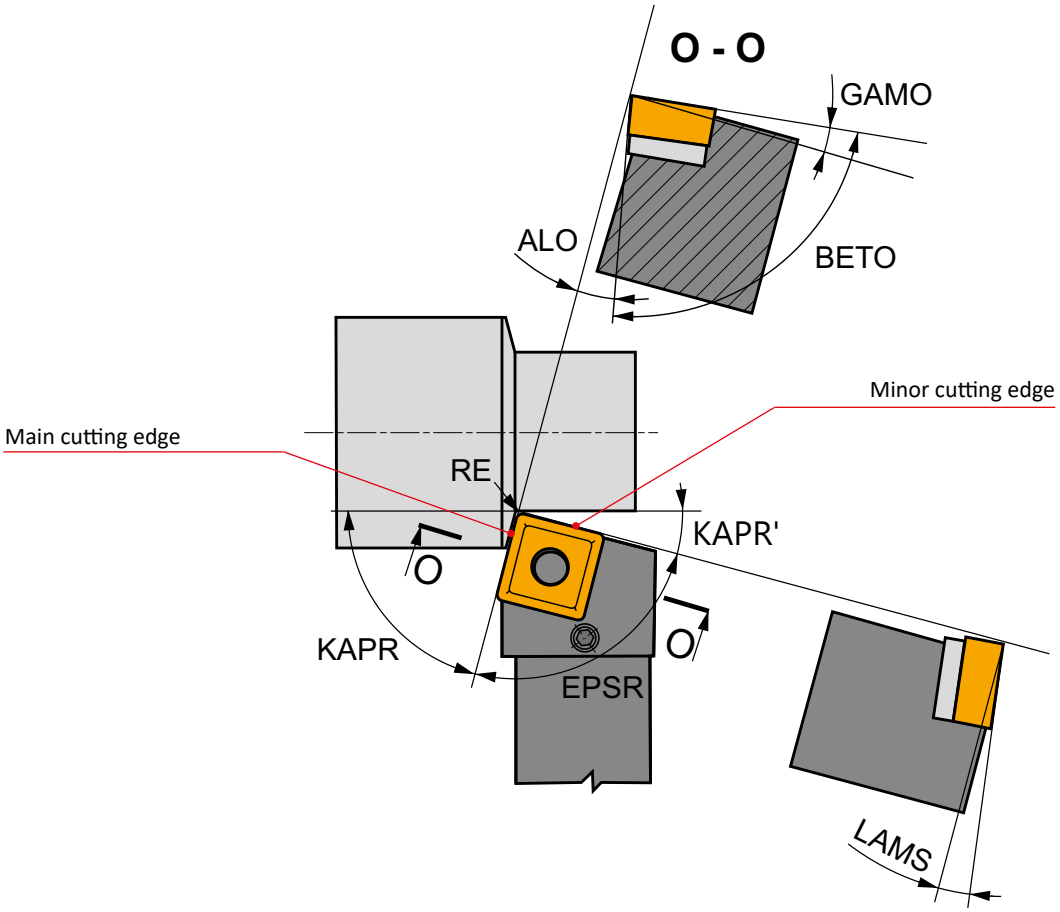
Note: the types of heads are:
- straight – allows turning in both directions
- side – distinguish between right and left design
- bent – distinguish between right and left design (allows better access when turning more complex surfaces)

Working and construction angles of turning tools

The position and orientation of the cutting edge in relation to the workpiece and its geometric shape determine the cutting angle characteristics.
The angles on the cutting edge are determined by a two coordinate system:

a) design
b) working

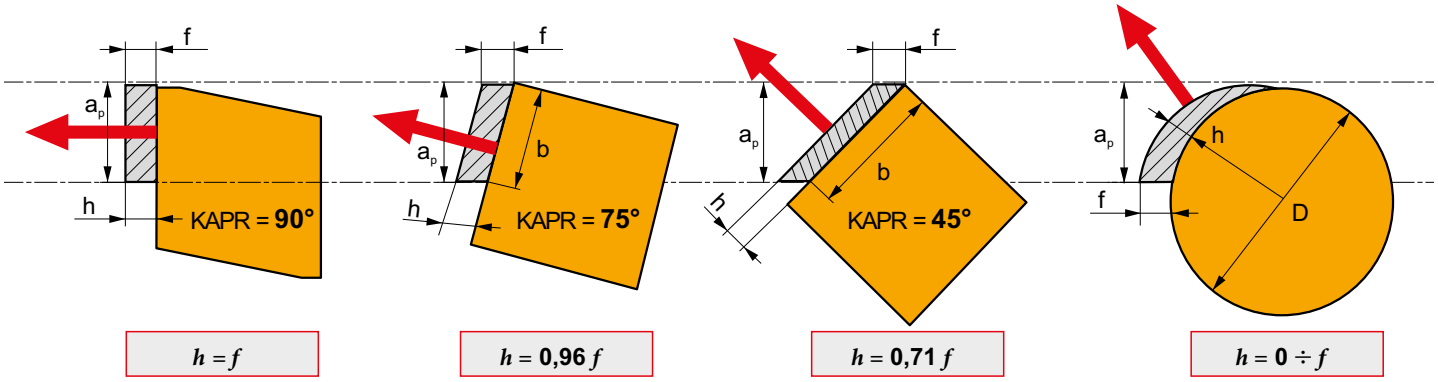
a) tool coordinate system (stationary), which is used to determine the cutting edge geometry during design, production and checking. All angles defined in this system are called tool cutting angles. All angles defined by ISO standards according to the insert shape belong in this group.



b) working coordinate system, used to determine the cutting edge geometry during the machining process. These angles are called working angles and they depend on the position of the insert clamped into the tool holder. For example, the cutting insert SNUN ..... has a tool clearance angle ***AN*** = 0° and a rake angle ***GAMP*** = 0°, however the insert is clamped in the tool holder to give a working clearance angle ***ALO*** = 6° and a working rake angle ***GAMO*** = -6°. The working angles affect the tool angles with pre-formed chip breakers. However the most important are the working angles for the cutting process.

The basic tool angles are indicated in the picture in the basic tool plane (interlaid by the bearing surface of the tool holder) and in the normal tool plane (interlaid across to cutting edge – cut O-O).
We are concerned with the following angles:
The rake angle ***GAMO*** – substantially affects the cutting process. Its size determines the progress and the intensity of plastic deformation during chip forming; it also determines the value of the cutting forces and the thermal stress on the cutting edge. The range of rake angles is wide, from ***GAMO*** = +25° to -15° for cutting tools with indexable cutting inserts for milling and turning. A positive rake angle improves the chip forming conditions, reduces the cutting forces and reduces the cutting temperature level. A negative rake angle improves the strength of the cutting edge, however it increases plastic deformation during chip forming and thereby also the cutting forces and temperatures.

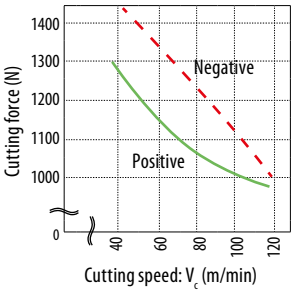
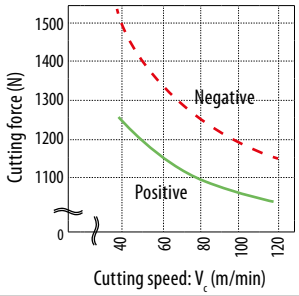
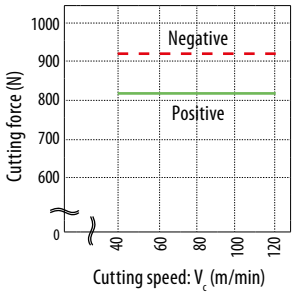
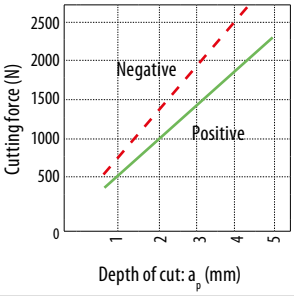
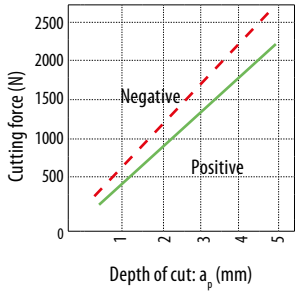
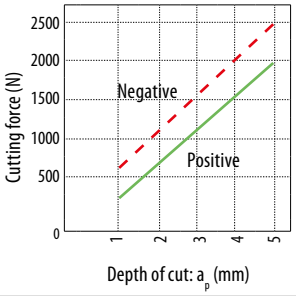
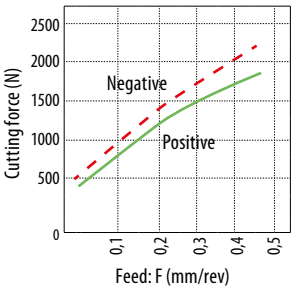
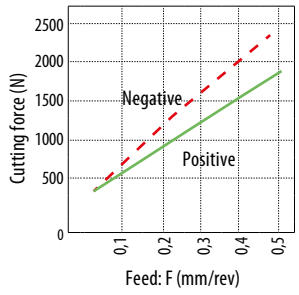
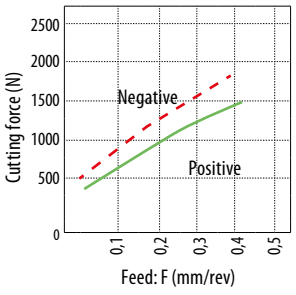
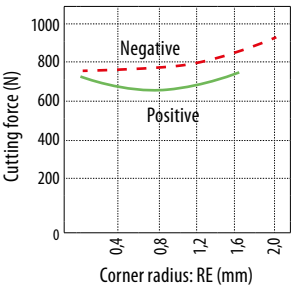
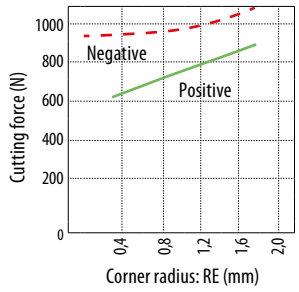
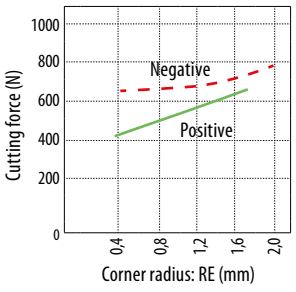
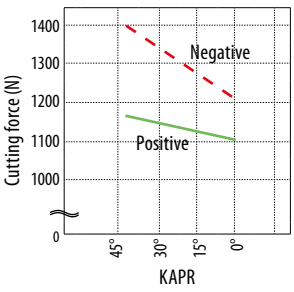
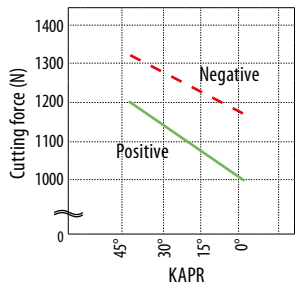
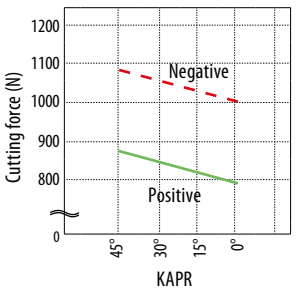
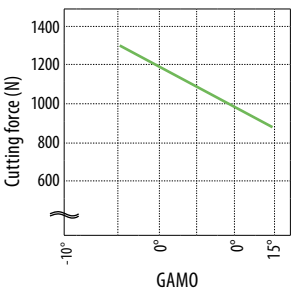
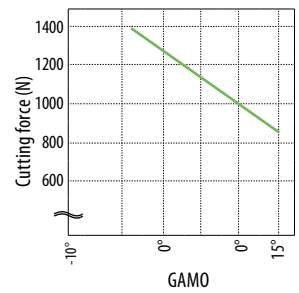
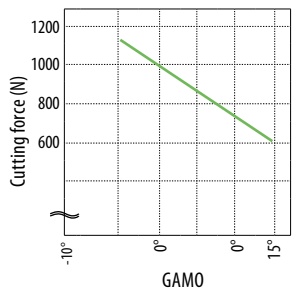
Clearance angle ***ALO*** affects the value of friction between the flank and the machined surface. Increasing the clearance angle ***ALO*** reduces this friction and thereby flank wear as well.
Wedge angle ***BETO*** is the angle of the cutting insert's wedge. Increasing angle ***BETO*** increases the strength of the cutting edge (resistance against shock), however it also increases the cutting resistance.
Inclination angle of main cutting edge ***LAMS*** – determines the point of first contact between the cutting edge and the workpiece, which is important for interrupted cut. If ***LAMS*** is positive, the point of contact is close to the nose of the cutting insert. The negative angle ***LAMS*** moves the point of first contact far from the nose and thereby affects the resistance of the cutting edge against mechanical stress. Furthermore, ***LAMS*** affects the direction of chip evacuation. If ***LAMS*** is negative, the direction of chip evacuation is towards the machined surface. Whereas if ***LAMS*** is positive, the direction of chip evacuation is away from the machined surface.
Setting angle of main cutting edge ***KAPR*** has main influence on the values of cutting forces and the cross section shape of the chip. Reducing angle ***KAPR*** makes the chip thinner at a given feed f and depth of cut a_p. Whereas if ***KAPR*** = 90° the chip thickness $h = f$ and the chip width $b = a_p$ becomes wider. Regarding the decreasing setting angle the function width of the T-land is increasing and the rake angle of insert is decreasing.
Setting angle of minor cutting edge ***KAPR´*** together with corner radius ***RE*** define the final surface quality.



$h = f$ | $h = 0{,}96\ f$ | $h = 0{,}71\ f$ | $h = 0 \div f$

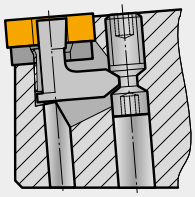
Parameter	Change	Abrasion of the flank	Crater wear formation	Tendency for plastic deformation	Resistance to adverse working conditions	Surface	Cutting forces	Tendency to vibrate	Medium cutting temperature	Chip formation
Main cutting edge angle	**Less than or greater than 90°**	Slightly reduced	Slightly reduced	Slightly reduced	Slightly improved	Effect not proven	Slightly increased	Increased	Lower	Chip is thinner and wider (b/h changes)
Minor cutting edge angle	**Decreased**	Slightly reduced	Effect not proven	Slightly increased	Very slightly improved	Improved (conditional)	Slightly increased	Increased	Very slightly higher	Insignificant effect
Corner angle	**Increased**	Effect not proven	Effect not proven	Reduced	Improved	Effect not proven	Effect not proven (-)	Slightly increased	Very slightly higher	Insignificant effect
Corner radius	**Increased**	Reduced (to certain level)	Reduced (to certain level)	Reduced	Improved	Improved (conditional)	Increased (to certain level)	Increased	Slightly higher	Softer formation (mostly – based on the chip breaker)
Flank angle	**More positive**	Reduced	Effect not proven	Very slightly Reduced	Slightly worse	Improved (conditional)	Slightly reduced	Slightly reduced	Slightly lower	Effect not proven
Face angle	**More positive**	Very slightly reduced	Reduced	Slightly reduced	Slightly worse	Effect not proven (+)	Slightly reduced	Reduced	Lower	Chip is less compressed, but is forced closer to the cutting edge
Cutting edge angle	**Positive**	Effect not proven	Slightly reduced	Slightly reduced	Slightly worse	Effect not proven (+)	Slightly reduced	Slightly reduced	Slightly lower	Deflects the chip from the workpiece
T-land width	**Wider**	Slightly increased	Slightly increased	Slightly increased	Slightly improved	Effect not proven (+)	Increased	Increased	Higher	Chip is more compressed, but presses to a larger surface
T-land angle (working)	**Positive**	Very slightly reduced	Slightly reduced	Slightly reduced	Slightly worse	Effect not proven (+)	Reduced	Reduced	Slightly lower	Chip is less compressed

What affects cutting forces and how?

Conditions	Carbon steel (HB230)	Stainless steel (HB145)	Grey cast iron (HB130)
Cutting speed and cutting force $f = 0.2$ mm/rev $a_p = 2$ mm KAPR 90° RE 0.4			
Depth of cut and cutting force $V_c = 100$ m/min $a_p = 0.2$ mm/rev KAPR 90° RE 0.4			
Cutting feed and cutting force $V_c = 100$ m/min $a_p = 2$ mm KAPR 90° RE 0.4			
Corner radius and cutting force $V_c = 100$ m/min $f = 0.2$ mm/rev $a_p = 1.2$ mm KAPR 90°			
Main cutting edge angle $V_c = 100$ m/min $f = 0.2$ mm/rev $a_p = 2$ mm KAPR 45°, 60°, 75°, 90° (values on the x axis) RE 0.4			
Rake angle and cutting force $V_c = 100$ m/min $f = 0.2$ mm/rev $a_p = 2$ mm KAPR 90° RE 0.4			

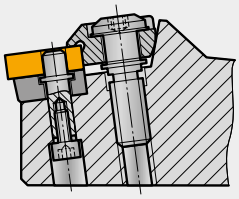
Tool holder choice with regard to the clamping technique

The PRAMET TOOLS offer includes tool holders, adjustable holders, turret heads and adjustable holders for external longitudinal, facing, copy turning, and naturally also for internal turning. Tool holders are classified according to the inserts clamping system into six groups that are schematically illustrated in the following passage.



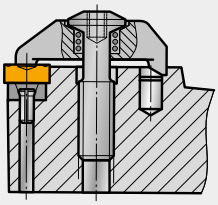
ISO P

This system serves for the clamping of negative inserts with cylindrical hole, both with chip formers and/or without them. The insert clamping is achieved as a result of an angle lever that after tightening the screw presses the insert down to the holder bed. Tool holders with this clamping system of inserts ensure a reliable and exact clamping of an insert. They perform the best and also the most frequent use at external turning operations, namely both finishing and roughing ones. Alternatively this type of clamping can be also used for holders intended for internal turning of holes with larger diameters.



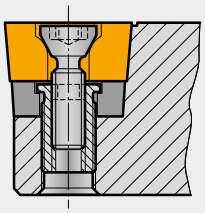
ISO M

This system is used for the clamping of cutting inserts of the same type as that of the system ISO P. In this case an insert is set onto a strong pin to which it is pressed by a clamp that is also fixing at the same time the top of insert. This clamping system is suitable mainly for holders with supposed enhanced dynamic load. These holders are used almost exclusively for the external turning.



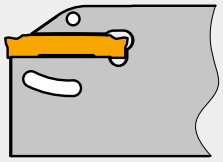
ISO C

This system serves for the clamping of both negative and positive inserts without holes, namely with both chip formers (pre-pressed, ground and side-pressed ones) and without them. The insert is fixed in the bed of a tool holder by a screw-held clamp, under which there is still embedded a side-pressed chip former at some insert types. Holders with this clamping system are used for both the external and internal surface machining. At present the clamping system C loses its importance. Especially at tools for internal turning it is replaced by the system S with benefit.



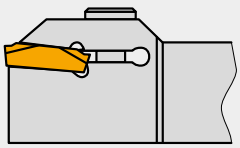
ISO S

This clamping system is mainly used for small cross-section tools, designed for both external and internal turning (drilling). In this case a special screw, going through an insert cone hole, achieves the clamping. By tightening this screw an insert is fixed in the tool bed. This solution is especially convenient because there is no obstacle for chip flow.



ISO X

This marking identifies tools with so called special clamping system (i.e. it is different at individual tool manufacturers and suppliers). In our case we have identified under this marking tool holders that use the cutting resistance to clamp an insert into the self-locking bed. This clamping system is used for tools intended for parting and recessing.

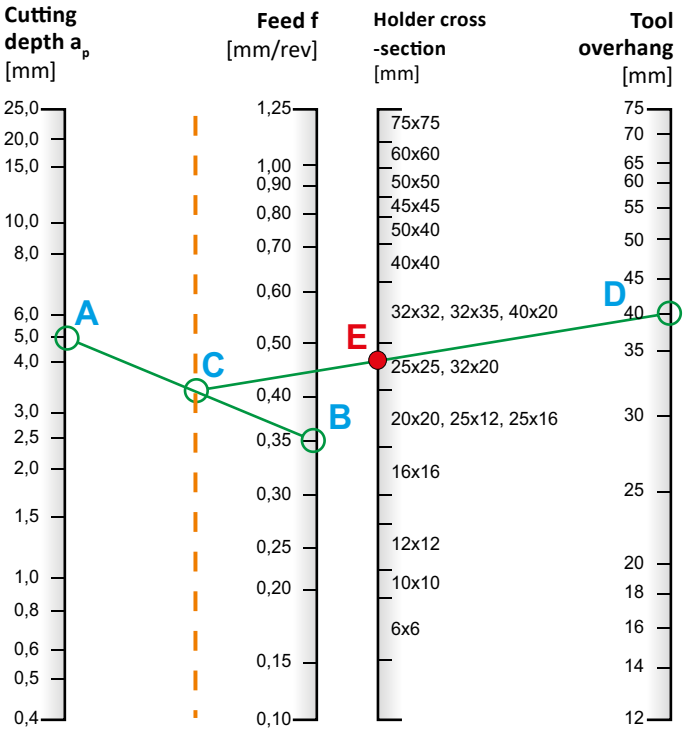


ISO G

This clamping system is used at tools for recess turning and at tools for copy turning (system CTP). The insert is pushed into the holder bed by a clamp from the top. The contact surface in the holder, in the clamp and also in the insert is shaped in such a way that it hinders the insert displacing by a feeding component of cutting speed.

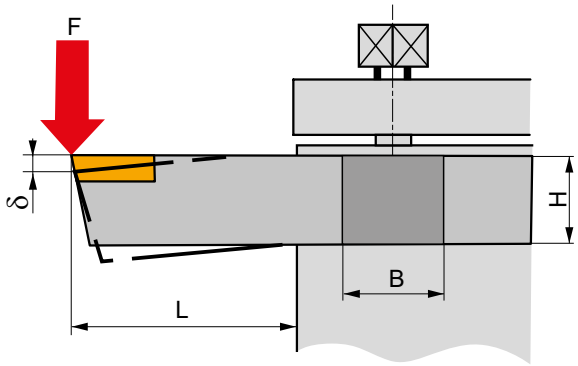
With reference to square cutting tool

External cutting tools (square cross section)



Unfortunately, we cannot offer you a similar diagram for choosing the diameter of the inner cutting tool as the situation in internal turning is complicated by the chip. Due to the larger overhang, a holder with the largest possible diameter should be chosen, but if the diameter of the holder is close to the diameter of the hole to be machined, problems can occur with the chip evacuation. It usually gets between the hole wall and the holder body damaging the surface being formed.
In general, if you use tools with a steel body, the overhang should not exceed 4xD, and if you have tools with a carbide or heavy metal body, the maximum overhang should be 6xD. Remember that for both types of tools, the portion for clamping the tool should be at least 3xD.

Use the **maximum possible cross section** with regard to clamping options and process limitations.

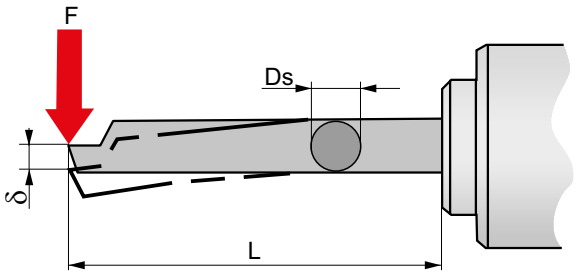


Bending stress

$$\sigma_{[MPa]} = \frac{6 . F . L}{B . H^2}$$

Tool holder deflection

$$\delta_{[mm]} = \frac{4 . F . L^3}{E . B . H^3}$$



Bending stress

$$\sigma_{[MPa]} = \frac{32 . F . L}{\pi . D_s^3}$$

Tool holder deflection

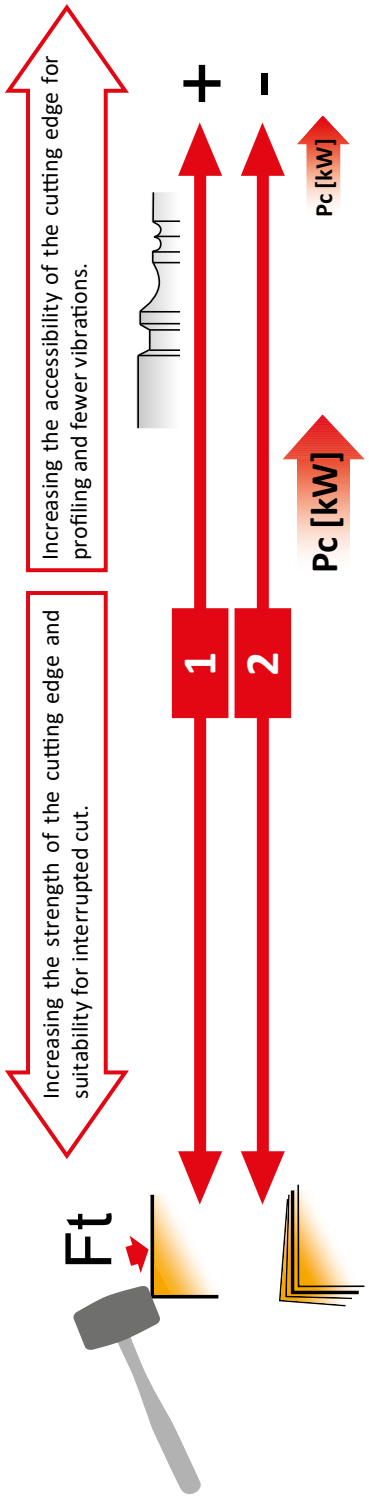
$$\delta_{[mm]} = \frac{64 . F . L^3}{3 . \pi . E . D_s^3}$$

σ	Bending stress in the body [MPa]
F	Cutting force [N]
L	Tool overhang [mm]
B	Body width [mm]
H	Body height [mm]
Ds	Body diameter [mm]
E	Body material elastic modulus [MPa]

Material	MPa [N/mm²]	[kgf/mm²]
Steel	210.000	21.000
Sintered carbide	560.000 – 620.00	56.000 – 62.00

50% reduction in overhang reduces deflection by **88%.**
1/3 increase in cross section reduces bending by **68%.**

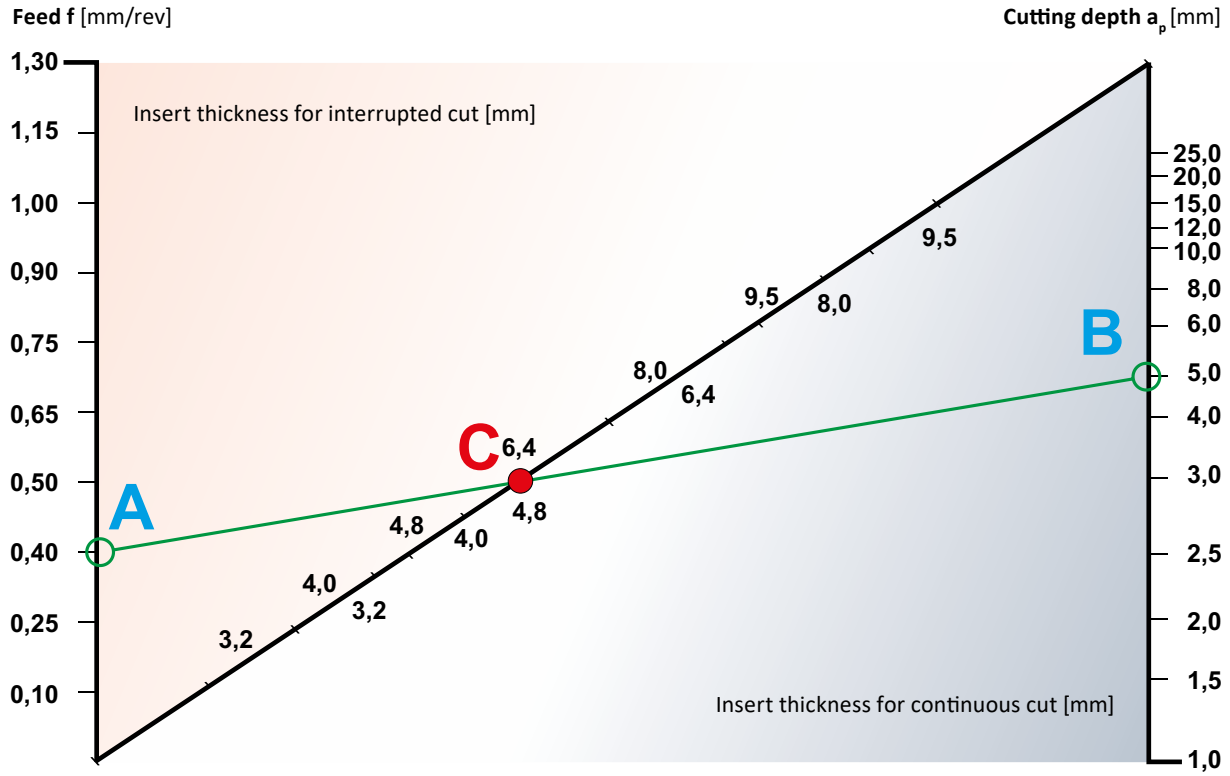
Choosing the shape and size of the insert



Priority of choice	Insert shape		Nose angle	Insert size		Maximum length of cutting edge Lmax			Roughing	Light roughing	Finishing	Profile turning	Face turning	Versatile applications	Tendency to vibrate	Hard material	Interrupted cut
				ISO	ANSI		[mm]	[″]									
		V	35°	11	2	0.25L	2.80	.110″									
				13			3.30	.130″			■	■		◪	■		
				16	3		4.20	.165″									
		D	55°	07	2	0.25L	2.00	.078″									
				11	3		2.90	.114″		■	■	■	◪	■	■		
				15	4		3.90	.153″									
		T	60°	11	2	0.33L	3.60	.141″									
				16	3		5.50	.216″									
				22	4		7.30	.287″	◪	■	■	◪	◪	◪	■	◪	
				27	5		9.10	.358″									
		W	80°	06	3	0.50L	3.30	.129″	◪	■	■	◪	■	◪	◪	◪	◪
				08	4		4.40	.173″									
		C	80°	06	2	0.66L	4.20	.165″									
				09	3		6.40	.251″									
				12	4		8.50	.334″									
				16	5		10.60	.417″	■	■	◪	◪	■	■	◪	■	■
				19	6		12.70	.500″									
				25	8		16.50	.649″									
		S	90°	09	3	0.66L	6.30	.248″									
				12	4		8.40	.330″									
				15	5		10.40	.409″	■	◪			■			■	■
				19	6		12.60	.496″									
				25	8		16.80	.661″									
		C	100°	12	4	0.66L	8.50	.334″									
				19	6		12.70	.500″	■				■			■	■
				25	8		16.50	.649″									
		R		06		0.40D	2.40	.094″									
				08			3.20	.125″									
				10			4.00	.157″									
				12			4.80	.188″									
				15			6.00	.236″	■				◪	◪		■	■
				16			6.40	.251″									
				19			7.60	.299″									
				20			8.00	.315″									
				25			10.00	.393″									
				32			12.80	.503″									

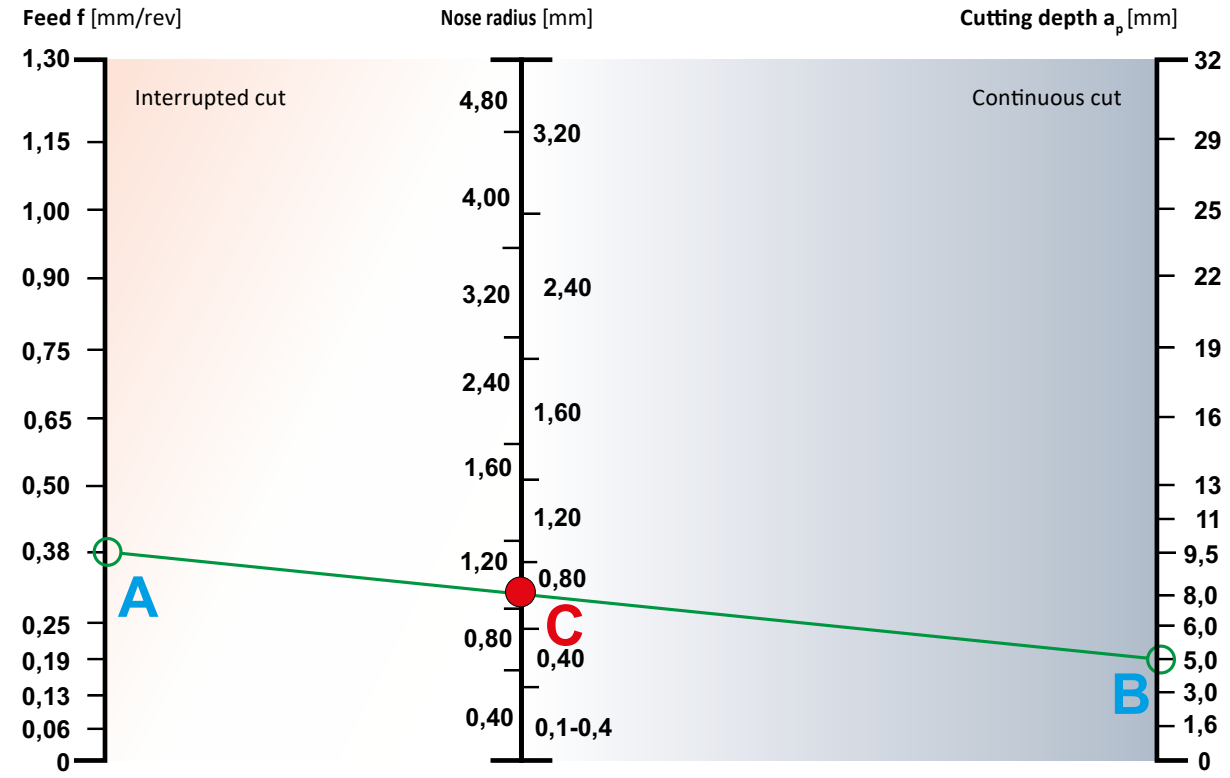
Choosing the optimum thickness of the insert

Based on practice, we recommend performing this only for interrupted cut and at a maximum load of inserts.



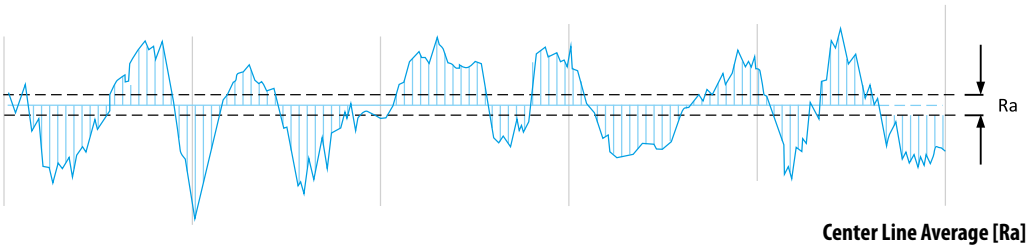
Choosing the nose radius of the insert

Based on practice, we recommend performing this only for interrupted cut and at a maximum load of inserts.



The insert radius, together with the feed and the minor cutting edge angle, is one of the main criteria for determining the roughness of the machined surface. Obviously, the properties and type of material being machined, including the cutting environment, have a significant impact.

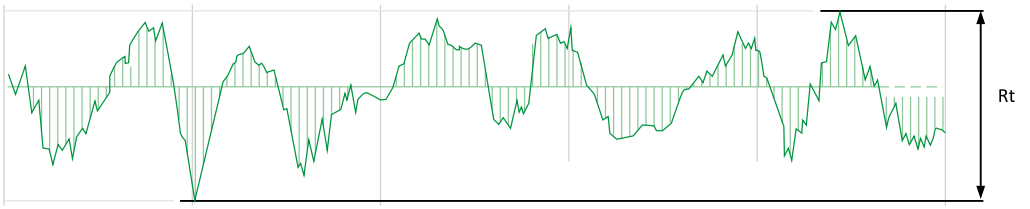
At the beginning of this section, we indicate the main roughness parameters most often specified in engineering practice.



Center Line Average [Ra]

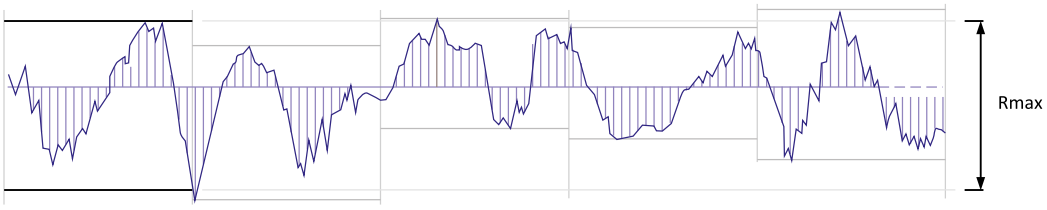
Ra – Average roughness
Ra is also known as Arithmetic Average (AA) or Center Line Average (CLA). It is the average roughness in the area between the roughness profile and its mean line. Graphically, Ra is the area between the roughness profile and its center-line divided by the evaluation length. The evaluation length is normally five sample lengths where each sample length is equal to one cut-off length. As shown in the graph.

Ra is by far the most commonly used Surface Finish parameter and a good starting point for quantifying parts even when there is no parameter callout (surface finish required). However, while common, Ra is not sufficient to completely characterize the roughness of a surface. Depending on the application, surfaces with the same roughness can perform quite differently. Lets look at the same surface roughness analysed in 3 other ways:



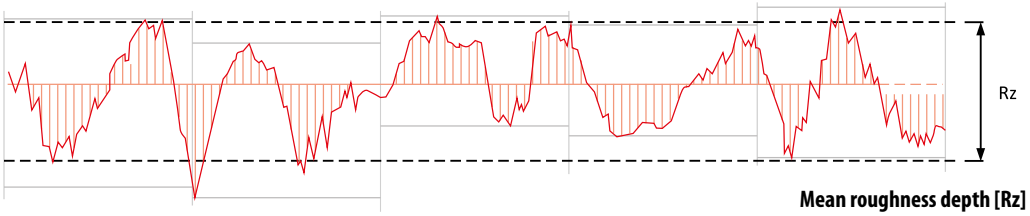
Total height of the roughness profile [Rt]

Rt – Total height of roughness profile
Difference between height of the highest peak and the depth of the deepest valley within the evaluation length as you can see in the bottom graph.



Largest single roughness depth [Rmax]

Rmax – Maximum distance from highest peak to lowest valley – of the total cut-off length
Or defining it differently but meaning the same Rmax is the largest single roughness depth measured within one of the sample lengths. Rmax is particularly sensitive to anomalies such as scratches and burrs that may not be obvious from measures such as Ra that rely on averages.



Mean roughness depth [Rz]

Rz – Mean roughness depth
Rz is often preferred to Ra in Europe and particularly Germany. Instead of measuring from center-line like Ra, Rz measures the average of the 5 largest peak to valley differences within five sampling lengths. While Ra is relatively insensitive to a few extremes, Rz is quite sensitive since it is the extremes it is designed to measure.

Surface Roughness Grades: “N” Numbers

The N numbers are common used on technical drawings to described the surface finish roughness. In the past triangles where used but the are not so concrete to explain the correct surface finish.

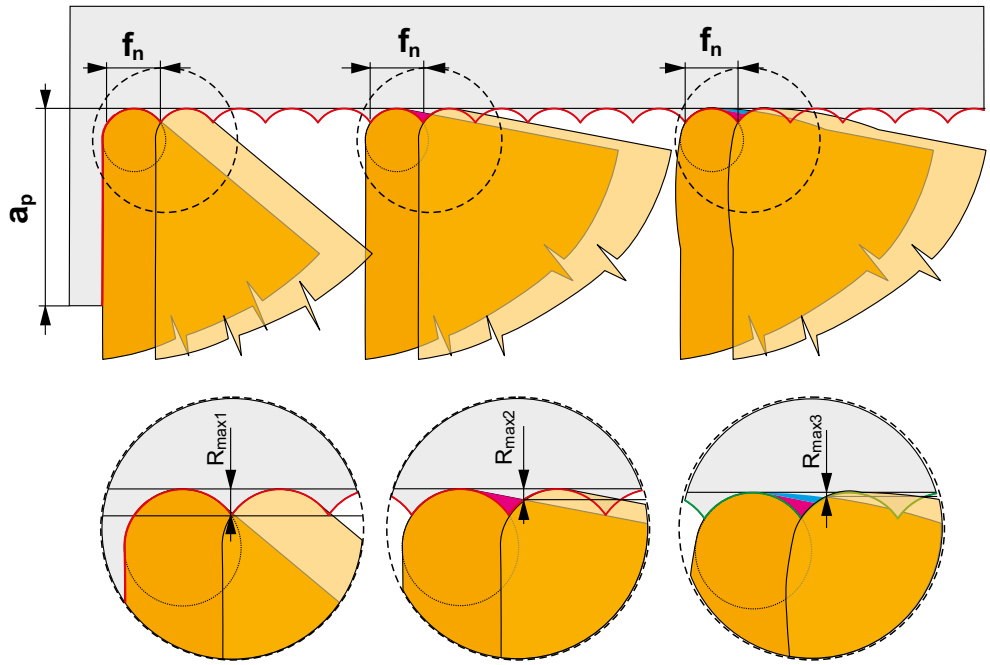
Relationship with Triangle Symbol

Arithmetical Mean Roughness Ra [µm]	Max. Height Roughness Rz [µm]	Ten PointsMean Roughness RzJIS [µm]	Roughness Grade	Note: (Relationship with Triangle)
0.025	0.1	0.1	N1	VVVV
0.05	0.2	0.2	N2	
0.1	0.4	0.4	N3	
0.2	0.8	0.8	N4	
0.4	1.6	1.6	N5	VVV
0.8	3.2	3.2	N6	
1.6	6.3	6.3	N7	
3.2	12.5	12.5	N8	VV
6.3	25	25	N9	
12.5	50	50	N10	V
25	100	100	N11	

Note: Finishing symbol (Triangle and wave~) was removed from JIS standard in the 1994 Revision.

In the market you can find some “RugoTest“ where the surface finish can be checked visually if there is no electronical equipment available. Be aware that’s only a guide and no measurement

Roughness values R_z and R_a specified in the following tables are valid for turning using inserts with larger minor cutting edge angles $KAPR'$, i.e. inserts of basic shapes **T..., S..., D...., K..., V...** In turning using inserts with shapes **C ..., W ...**, and in particular using inserts with the WIPER geometry – i.e. tools with adjustment angles $KAPR$ = 90° – 95°, usually lower roughness values R_a are achieved as compared with the data from the table. This is caused by the low value of the minor cutting edge angle $KAPR'$. In this case rough areas are cut off and theoretical maximum rough areas are reduced to $R_{max3} < R_{max2} < R_{max1}$, as evident from the comparison in picture 17 that follows.



Surface quality in turning R_{max}

$$R_{max} = \frac{f^2}{8.RE} \cdot 1000$$

f ⇨	RE Radius																		
	0.1	0.2	0.4	0.5	0.8	1.0	1.2	1.5	1.6	2.0	2.4	2.5	3.0	3.2	3.5	4.0	5.0	6.0	8.0
	Surface R_{max} [µm]																		
0.05	3.13	1.56	0.78	0.63	0.39	0.31	0.26	0.21	0.20	0.16	0.13	0.13	0.10	0.10	0.09	0.08	0.06	0.05	0.04
0.07	6.1	3.06	1.53	1.23	0.77	0.61	0.51	0.41	0.38	0.31	0.26	0.25	0.20	0.19	0.18	0.15	0.12	0.10	0.08
0.08	8.0	4.0	2.00	1.60	1.00	0.80	0.67	0.53	0.50	0.40	0.33	0.32	0.27	0.25	0.23	0.20	0.16	0.13	0.10
0.10		6.3	3.13	2.50	1.56	1.25	1.04	0.83	0.78	0.63	0.52	0.50	0.42	0.39	0.36	0.31	0.25	0.21	0.16
0.12		9.0	4.50	3.60	2.25	1.80	1.50	1.20	1.13	0.90	0.75	0.72	0.60	0.56	0.51	0.45	0.36	0.30	0.23
0.15		14	7.0	5.6	3.52	2.81	2.34	1.88	1.76	1.41	1.17	1.13	0.94	0.88	0.80	0.70	0.56	0.47	0.35
0.16		16	8.0	6.4	4.00	3.20	2.67	2.13	2.00	1.60	1.33	1.28	1.07	1.00	0.91	0.80	0.64	0.53	0.40
0.18		20	10.1	8.1	5.1	4.05	3.38	2.70	2.53	2.03	1.69	1.62	1.35	1.27	1.16	1.01	0.81	0.68	0.51
0.20			13	10.0	6.3	5.0	4.17	3.33	3.13	2.50	2.08	2.00	1.67	1.56	1.43	1.25	1.00	0.83	0.63
0.22			15	12.1	7.6	6.1	5.0	4.03	3.78	3.03	2.52	2.42	2.02	1.89	1.73	1.51	1.21	1.01	0.76
0.25			20	16	9.8	7.8	6.5	5.2	4.88	3.91	3.26	3.13	2.60	2.44	2.23	1.95	1.56	1.30	0.98
0.27			23	18	11.4	9.1	7.6	6.1	5.7	4.56	3.80	3.65	3.04	2.85	2.60	2.28	1.82	1.52	1.14
0.30			28	23	14	11.3	9.4	7.5	7.0	5.6	4.69	4.50	3.75	3.52	3.21	2.81	2.25	1.88	1.41
0.32			32	26	16	13	10.7	8.5	8.0	6.4	5.3	5.1	4.27	4.00	3.66	3.20	2.56	2.13	1.60
0.35			38	31	19	15	13	10.2	9.6	7.7	6.4	6.1	5.1	4.79	4.38	3.83	3.06	2.55	1.91
0.37			43	34	21	17	14	11.4	10.7	8.6	7.1	6.8	5.7	5.3	4.89	4.28	3.42	2.85	2.14
0.40				40	25	20	17	13	13	10.0	8.3	8.0	6.7	6.3	5.7	5.0	4.00	3.33	2.50
0.45				51	32	25	21	17	16	13	10.5	10.1	8.4	7.9	7.2	6.3	5.1	4.22	3.16
0.50					39	31	26	21	20	16	13	13	10.4	9.8	8.9	7.8	6.3	5.2	3.91
0.55					47	38	32	25	24	19	16	15	13	11.8	10.8	9.5	7.6	6.3	4.73
0.60					56	45	38	30	28	23	19	18	15	14	13	11.3	9.0	7.5	5.6
0.65					66	53	44	35	33	26	22	21	18	17	15	13	10.6	8.8	6.6
0.70					77	61	51	41	38	31	26	25	20	19	18	15	12.3	10.2	7.7
0.75					88	70	59	47	44	35	29	28	23	22	20	18	14	11.7	8.8
0.80						80	67	53	50	40	33	32	27	25	23	20	16	13	10.0
0.85						90	75	60	56	45	38	36	30	28	26	23	18	15	11.3
0.90						101	84	68	63	51	42	41	34	32	29	25	20	17	13
0.95						113	94	75	71	56	47	45	38	35	32	28	23	19	14
1.00							104	83	78	63	52	50	42	39	36	31	25	21	16
1.20								120	113	90	75	72	60	56	51	45	36	30	23
1.30								141	132	106	88	85	70	66	60	53	42	35	26
1.40								163	153	123	102	98	82	77	70	61	49	41	31
1.50									176	141	117	113	94	88	80	70	56	47	35
1.60										160	133	128	107	100	91	80	64	53	40
1.70										181	151	145	120	113	103	90	72	60	45
1.80										203	169	162	135	127	116	101	81	68	51
1.90										226	188	181	150	141	129	113	90	75	56
2.00											208	200	167	156	143	125	100	83	63
2.20											252	242	202	189	173	151	121	101	76
2.50													260	244	223	195	156	130	98

Danger of hard chipbreaking

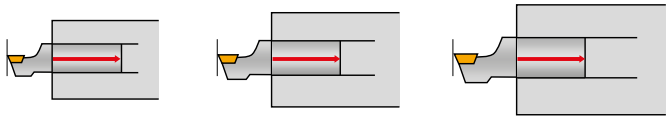
Surface quality in turning R_a

$$R_a = 43{,}9 \frac{f^{1{,}88}}{RE^{0{,}97}}$$

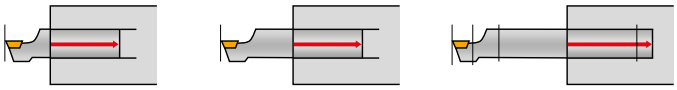
f ⇨	*RE* Radius																		
	0.1	0.2	0.4	0.5	0.8	1.0	1.2	1.5	1.6	2.0	2.4	2.5	3.0	3.2	3.5	4.0	5.0	6.0	8.0
	Surface R_a [µm]																		
0.05	1.47	0.75	0.38	0.31	0.20	0.16	0.13	0.11	0.10	0.08	0.07	0.06	0.05	0.05	0.05	0.04	0.03	0.03	0.02
0.07	2.76	1.41	0.72	0.58	0.37	0.30	0.25	0.20	0.19	0.15	0.13	0.12	0.10	0.10	0.09	0.08	0.06	0.05	0.04
0.08	3.55	1.81	0.93	0.75	0.47	0.38	0.32	0.26	0.24	0.19	0.16	0.16	0.13	0.12	0.11	0.10	0.08	0.07	0.05
0.10		2.76	1.41	1.13	0.72	0.58	0.48	0.39	0.37	0.30	0.25	0.24	0.20	0.19	0.17	0.15	0.12	0.10	0.08
0.12		3.88	1.98	1.60	1.01	0.82	0.68	0.55	0.52	0.42	0.35	0.34	0.28	0.26	0.24	0.21	0.17	0.14	0.11
0.15		5.9	3.02	2.43	1.54	1.24	1.04	0.84	0.79	0.63	0.53	0.51	0.43	0.40	0.37	0.32	0.26	0.22	0.17
0.16		6.7	3.41	2.74	1.74	1.40	1.17	0.94	0.89	0.71	0.60	0.58	0.48	0.45	0.42	0.36	0.29	0.25	0.19
0.18		8.3	4.25	3.42	2.17	1.75	1.46	1.18	1.11	0.89	0.75	0.72	0.60	0.57	0.52	0.46	0.37	0.31	0.23
0.20			5.2	4.17	2.64	2.13	1.78	1.44	1.35	1.09	0.91	0.88	0.73	0.69	0.63	0.56	0.45	0.37	0.28
0.22			6.2	4.99	3.16	2.55	2.14	1.72	1.62	1.30	1.09	1.05	0.88	0.82	0.76	0.66	0.53	0.45	0.34
0.25			7.9	6.3	4.02	3.24	2.72	2.19	2.05	1.65	1.39	1.33	1.12	1.05	0.96	0.84	0.68	0.57	0.43
0.27			9.1	7.3	4.65	3.74	3.14	2.53	2.37	1.91	1.60	1.54	1.29	1.21	1.11	0.98	0.79	0.66	0.50
0.30			11.1	8.9	5.7	4.57	3.83	3.08	2.89	2.33	1.95	1.88	1.57	1.48	1.35	1.19	0.96	0.80	0.61
0.32			13	10.1	6.4	5.2	4.32	3.48	3.27	2.63	2.20	2.12	1.78	1.67	1.53	1.34	1.08	0.91	0.69
0.35			15	11.9	7.6	6.1	5.1	4.12	3.87	3.11	2.61	2.51	2.10	1.97	1.81	1.59	1.28	1.07	0.81
0.37			16	13	8.4	6.8	5.7	4.57	4.29	3.46	2.90	2.78	2.33	2.19	2.01	1.76	1.42	1.19	0.90
0.40				15	9.7	7.8	6.6	5.3	4.97	4.00	3.35	3.22	2.70	2.54	2.33	2.04	1.65	1.38	1.04
0.45				19	12.1	9.8	8.2	6.6	6.2	4.99	4.19	4.02	3.37	3.17	2.90	2.55	2.05	1.72	1.30
0.50					15	11.9	10.0	8.0	7.6	6.1	5.1	4.90	4.11	3.86	3.54	3.11	2.50	2.10	1.59
0.55					18	14	12.0	9.6	9.0	7.3	6.1	5.9	4.92	4.62	4.23	3.72	2.99	2.51	1.90
0.60					21	17	14	11.3	10.7	8.6	7.2	6.9	5.8	5.4	4.98	4.38	3.53	2.96	2.24
0.65					24	20	16	13	12.4	10.0	8.4	8.0	6.7	6.3	5.8	5.1	4.10	3.44	2.60
0.70					28	22	19	15	14	11.5	9.6	9.2	7.7	7.3	6.7	5.9	4.71	3.95	2.99
0.75					32	26	21	17	16	13	10.9	10.5	8.8	8.3	7.6	6.7	5.4	4.50	3.40
0.80						29	24	19	18	15	12.3	11.9	9.9	9.3	8.6	7.5	6.1	5.1	3.84
0.85						32	27	22	21	17	14	13	11.1	10.5	9.6	8.4	6.8	5.7	4.30
0.90						36	30	24	23	18	15	15	12.4	11.7	10.7	9.4	7.6	6.3	4.79
0.95						40	33	27	25	20	17	16	14	13	11.8	10.4	8.4	7.0	5.3
1.00							37	30	28	22	19	18	15	14	13	11.4	9.2	7.7	5.8
1.20								42	39	32	26	25	21	20	18	16	13	10.9	8.2
1.30								49	46	37	31	30	25	23	21	19	15	13	9.6
1.40								56	52	42	35	34	28	27	25	22	17	15	11.0
1.50									60	48	40	39	32	30	28	25	20	17	13
1.60										54	45	44	37	34	32	28	22	19	14
1.70										61	51	49	41	39	35	31	25	21	16
1.80										68	57	54	46	43	39	35	28	23	18
1.90										75	63	60	51	47	44	38	31	26	20
2.00											69	66	56	52	48	42	34	28	21
2.20											83	79	67	63	57	50	41	34	26
2.50													85	80	73	64	52	43	33

Danger of hard chipbreaking

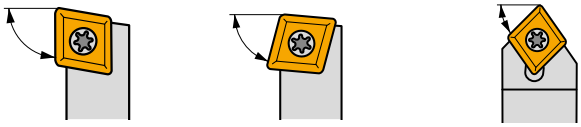
Hardness of chip formation – great attention must be paid to proper chip formation (the chip must be easily transportable from the cutting point and, at the same time, it should have the smallest possible plastic deformation, i.e. the lowest possible cutting forces).



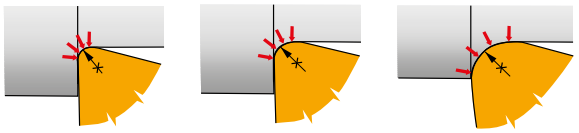
Tool body cross section (clamping rigidity) – the rigidity of the clamping itself is important. Therefore, we recommend using cutting tools with the largest possible body cross section that can be clamped. We also prefer to use monoblocks (PSC).



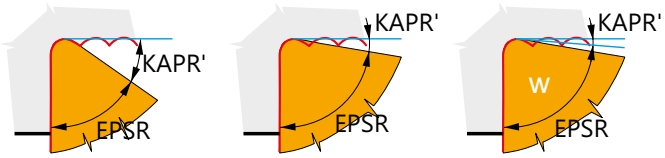
Overhang (clamping rigidity) – the tool overhang, or the rigidity of the clamping itself, is of great importance as well. Therefore, we recommend minimising the overhang.



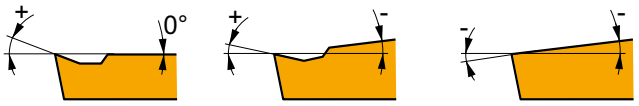
Main cutting edge angle – ideally, the tool adjustment angle should be close to 90°, i.e. the forces should be directed as much as possible to the axis of the machine spindle.



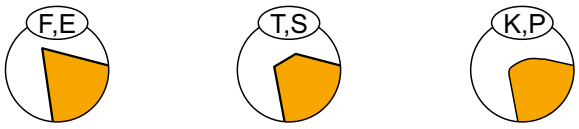
Insert radius – if there is a risk of vibration, we recommend selecting an insert with the smallest possible tip radius.



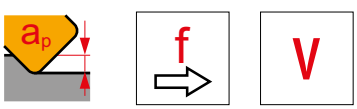
Corner angle and minor cutting edge angle – in this case it is recommended to choose an insert with the smallest possible tip angle, i.e. V (35°), D or K (55°), or T (60°).C or W shapes, or inserts with WIPER geometry, are not recommended. Please note this does not always apply (if torsional vibrations also occur, the application of these inserts can be beneficial).



Geometry – when turning thin-walled and slim parts, it is recommended to opt for positive inserts with positive geometry, then negative inserts with positive geometry, and only if there is no other choice, then negative inserts with neutral to negative geometry should be chosen.



Micro-geometry (cutting edge design) – to reduce the risk of vibration, it is necessary to select inserts with the sharpest possible cutting edge geometry. If you use inserts with t-landing, these should be as narrow and positive as possible. It is very important that the tool generates as little cutting resistance as possible.



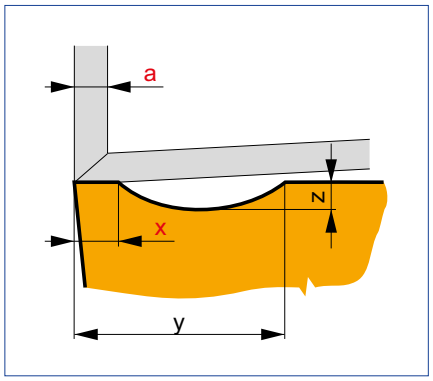
Cutting conditions:

1) When choosing the depth of cut, always make sure that the depth of cut is greater than the radius of the insert.
2) When choosing the feed, take into account that the specific cutting resistance increases with decreasing chip thickness, i.e. do not use extremely low feeds (below 0.1 mm).
3) If there are vibrations, cutting speed change (+/-) can also help – this is related to the inherent frequency of the machine.
   NOTE: It is often advantageous to reduce the depth of cut (not below the radius) and increase the feed.

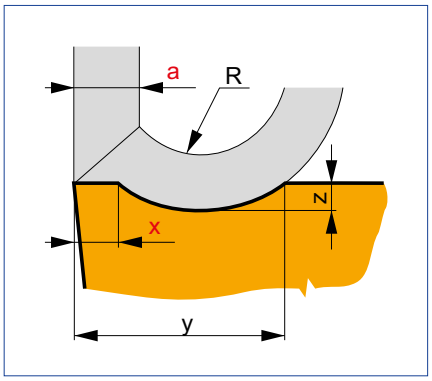
Do not use worn inserts – abrasion of the flank causes an increase in cutting forces, and thus the risk of vibration.
If tool clamping allows it, move the cutting edge above the axis (in external turning) by approx. 2% of the diameter.

Choosing the chip breaker

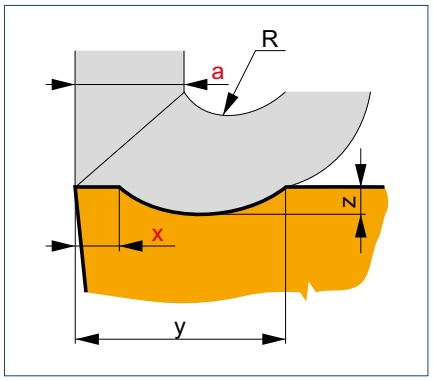
The shape of the chip depends on several factors – the properties of the machined component, material strength, toughness and microstructure, properties of the insert grade, especially the frictional properties (on the rake face), geometry of cutting edge, cutting conditions and the type of chip breaker, also static and dynamic properties of the machine.
Virtually all of these factors in the cutting process work to combine and determine the shape of the chip (shearing action, flow of the chip, or curled chip – which can gather and clog the machining area). Each chip breaker works in a defined range of feed and depth of cut.
The minimum feed at which the chip breaker functions depends on the width of Top Land „*x*“ and it's angle. The maximum feed depends on the distance from the cutting edge to the end of the chip breaker *y* and the depth of the chip breaker *z*.



If the thickness of layer „*a*“ cut away (at setting angle *KAPR* = 90°, equal to the feed) is significantly smaller than the T–land „*x*“, the chip is only in contact with the chamfer. It cannot enter the chip breaker and therefore it cannot be broken (see picture).

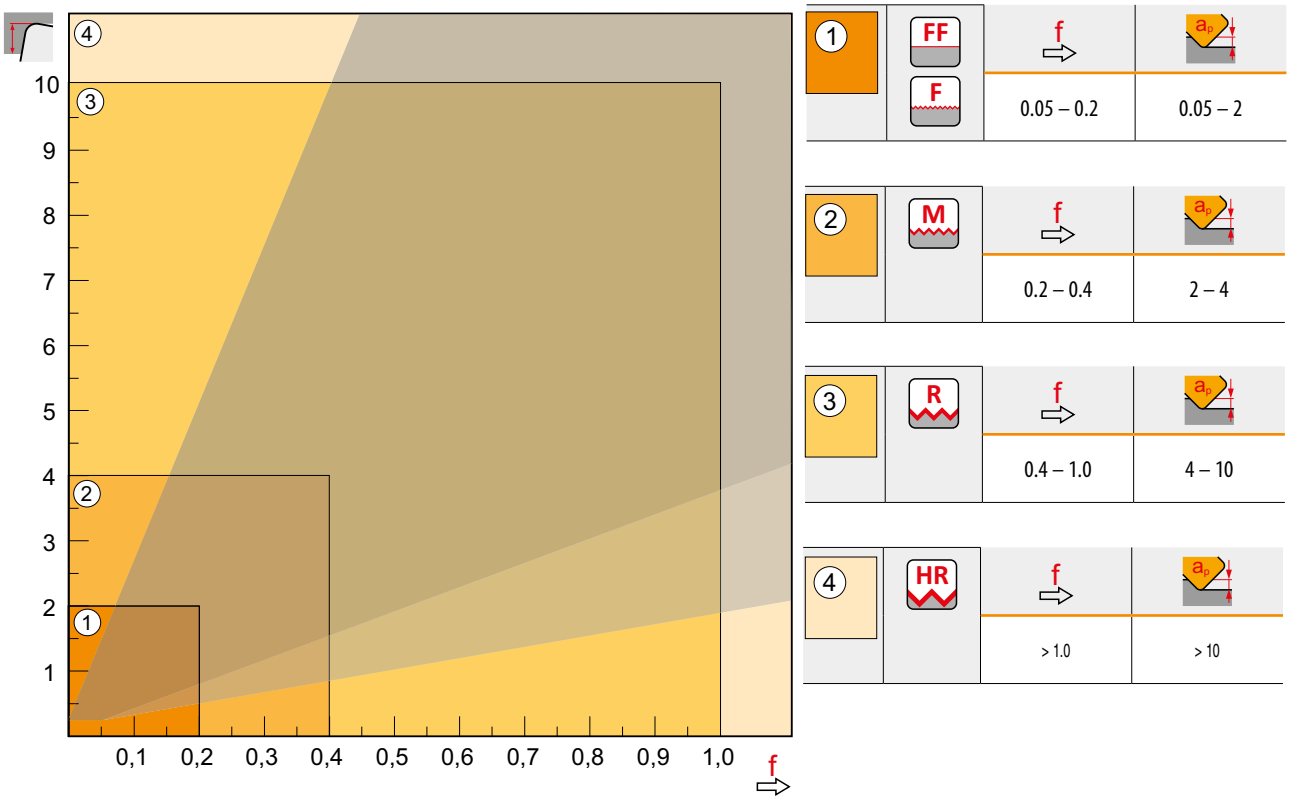


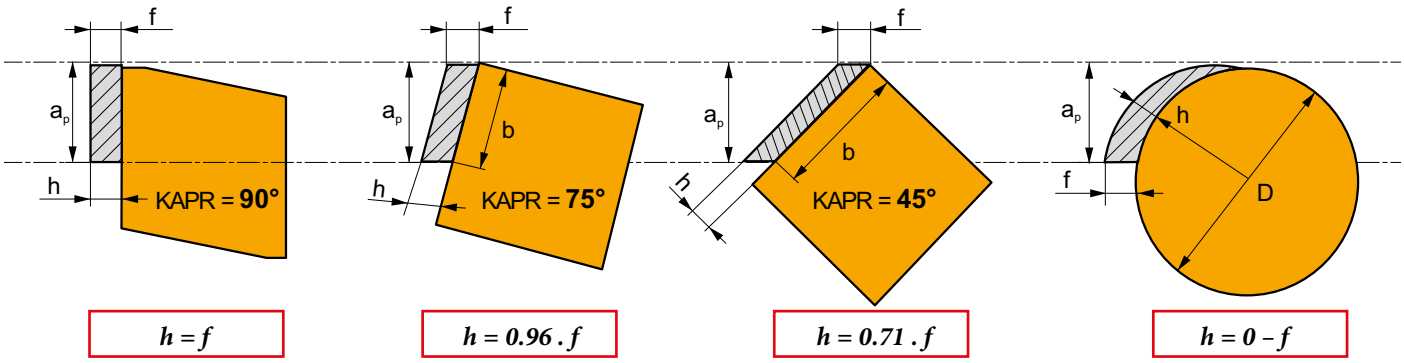
If the feed „*f*“ is greater (thickness greater than the depth of „*a*“ and *x* < *a* (*f*), the chip enters the chip breaker and is curved at specific values of radius *R* (see picture).



If *x* << *a* (see picture) the chip is excessively deformed (chip is crushed). If the chip misses the chip breaker it will not be broken.

All chip breakers work in a defined range of cutting conditions. This is why the chip breaking area is shown as a continuous range in order to define the most commonly used depth of cut and feed combinations (see following picture). The chip breaker application ranges also overlap.





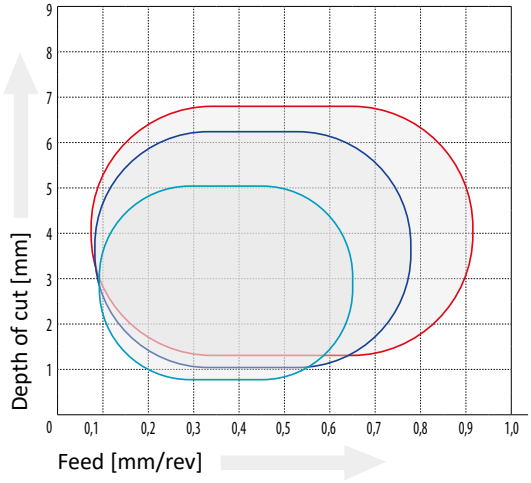
$h = f$ | $h = 0.96 \cdot f$ | $h = 0.71 \cdot f$ | $h = 0 - f$

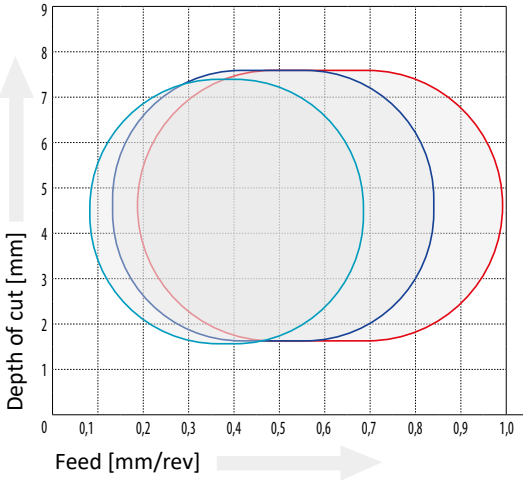
Optimal combination of depth of cut and feed varies for each material. The following table shows ranges of the optimal ratios ***b*** (chip width) to ***h*** (chip thickness). For adjustment angles close to 90°, this is essentially the ratio of depth of cut to feed. See picture.

Material		min b/h	max b/h	
P		5	15	
M		8	12	
K		3	30	
N		9	11	
S	Square chip b=h	8	12	Ribbon chip b/ h > 30
H		5	20	

As follows from the table, when choosing cutting conditions, you should avoid the so-called square chip, i.e. values where the width is close to the thickness of the chip and, on the other hand, the ribbon chip, i.e. high depths of cut in combination with low feed.
The above table shows that the most problematic chip formation relates to non-ferrous metal alloys, in particular aluminium alloys with or without a low silicon content. This is followed by superalloys and stainless steels (especially austenitic and duplex steels). Next are steels, and the best situation is with hardened materials and cast irons.

Also, keep in mind that the chip formation diagram moves slightly towards higher depths of cut (up), with increasing cutting edge length (insert size), and towards higher feeds (to the right), with increasing radius.



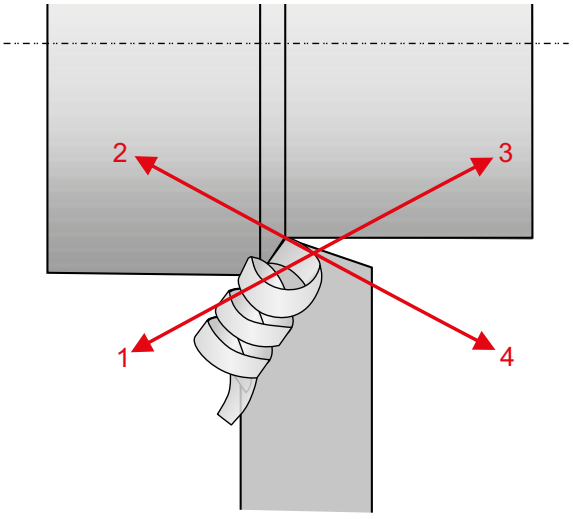


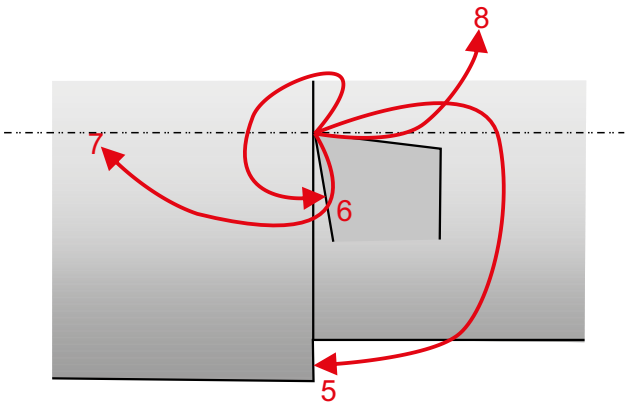
- An insert with the diameter of an inscribed circle IC = 19.050 [mm]
- An insert with the diameter of an inscribed circle IC = 15.875 [mm]
- An insert with the diameter of an inscribed circle IC = 12.700 [mm]
- An insert with the tip radius RE = 1.6 [mm]
- An insert with the tip radius RE = 1.2 [mm]
- An insert with the tip radius RE = 0.8 [mm]

Aside from shape of the chip, the direction of its evacuation is also very important. The following figure shows the basic directions of chip evacuation:

1 – from the workpiece in the feed direction,
2 – to the workpiece in the feed direction
3 – to the workpiece against the feed,
4 – from the workpiece against the feed,
5 – broken against the cutting area surface,
6 – broken against the side of the tool,
7 – broken against the surface being machined,
8 – broken against the machined surface,

Obviously, directions that can cause damage or scratching of the machined surface are undesirable.



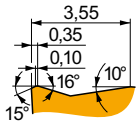


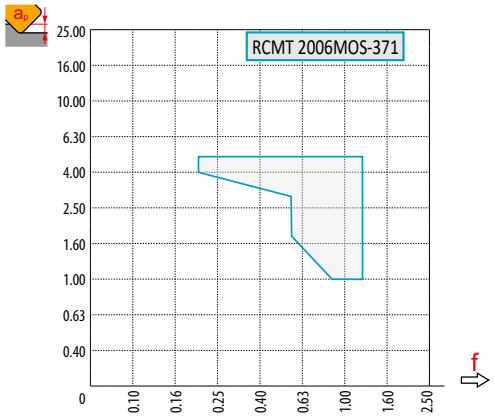
The following section clearly specifies all the geometries we offer you in structured groups. These tables should give you an optimal and more accurate choice.

OVERVIEW OF TURNING INSERT GEOMETRIES

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

371 (RCMT)





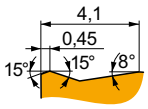
P	M	K	N	S	H
■		■			

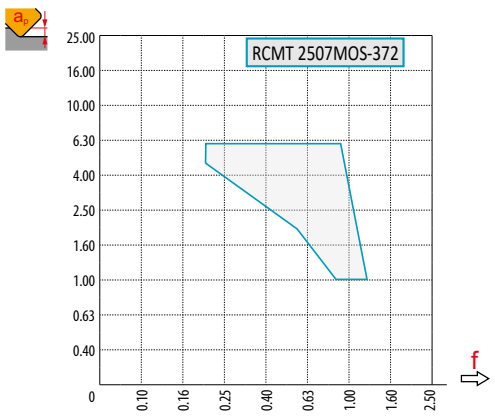
f: 0.20 – 1.20

a_p: 1.0 – 5.0

RCMT

372 (RCMT)





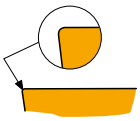
P	M	K	N	S	H
■		■			

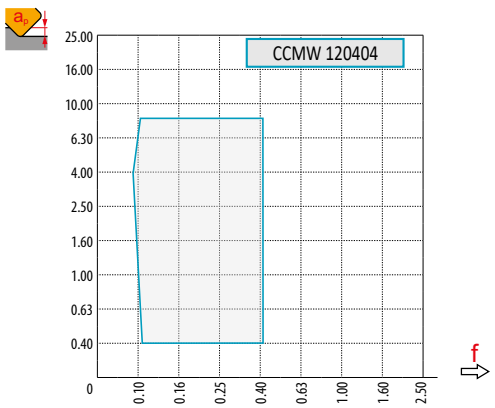
f: 0.20 – 1.20

a_p: 1.0 – 6.0

RCMT

...W





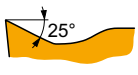
P	M	K	N	S	H
		■			◪

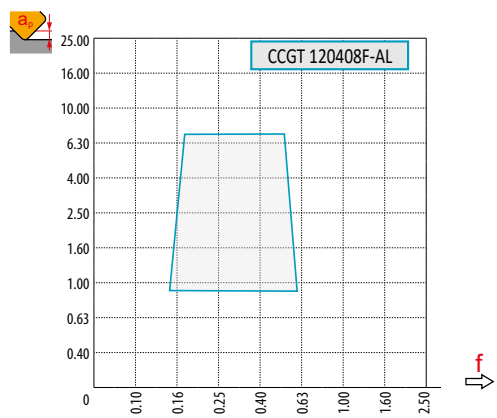
f: 0.05 – 0.60

a_p: 0.4 – 8.4

CCMW, DCMW, SCMW, RCMW, TCMW, VCMW

AL





P	M	K	N	S	H
			■	◪	

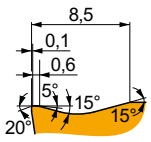
f: 0.05 – 0.60

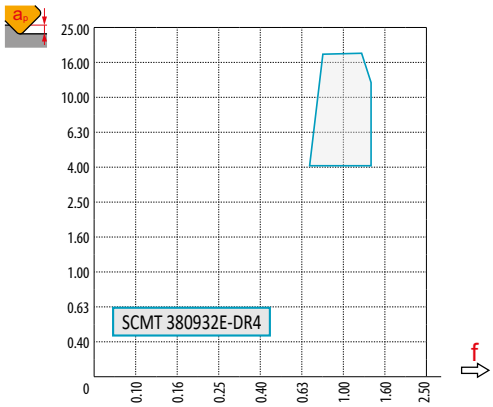
a_p: 0.2 – 7.0

CCGT, DCGT, SCGT, RCGT, TCGT, VCGT, WCGT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

DR4 (SCMT)





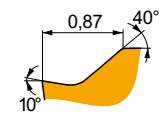
P	M	K	N	S	H
■	◪	■			

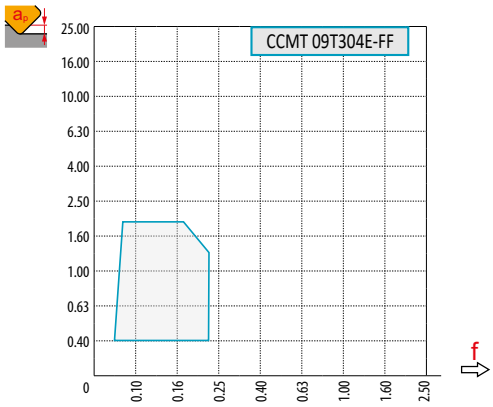
f 0.70 – 1.40

a_p 4.0 – 18.0

SCMT

FF





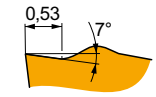
P	M	K	N	S	H
■	◪				

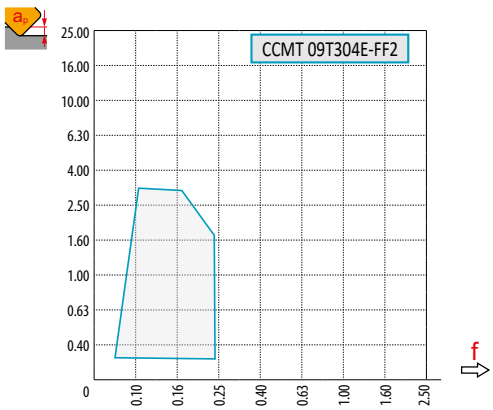
f 0.05 – 0.23

a_p 0.2 – 2.0

CCMT, DCMT

FF2





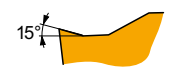
P	M	K	N	S	H
■		■			

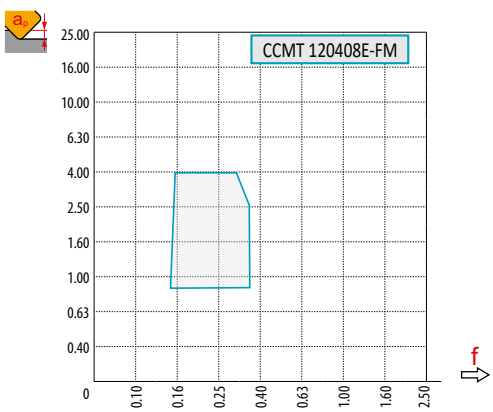
f 0.02 – 0.28

a_p 0.20 – 3.0

CCMT, CCGT, DCGT, DCMT, SCMT, TCGT, TCMT, VBMT, VCGT, VCGX, WCGT

FM





P	M	K	N	S	H
■	■	◪	◪		

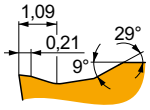
f 0.05 – 0.45

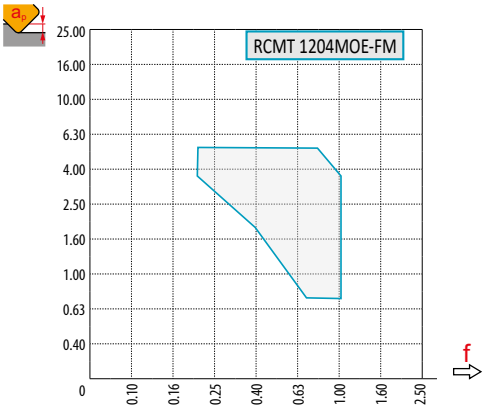
a_p 0.2 – 4.0

CCMT, DCMT, SCMT, TCMT, VBMT, WCMT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

FM (RCMT)





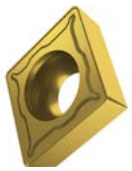
P	M	K	N	S	H
■	■	◪	◪		

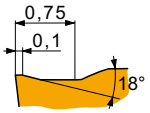
f ⇨ 0.10 – 1.0

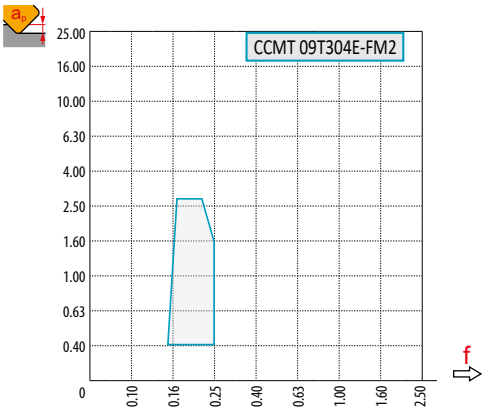
a_p 0.3 – 5.0

RCMT

FM2







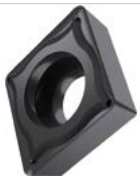
P	M	K	N	S	H
■	◪	■			

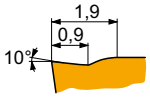
f ⇨ 0.04 – 0.4

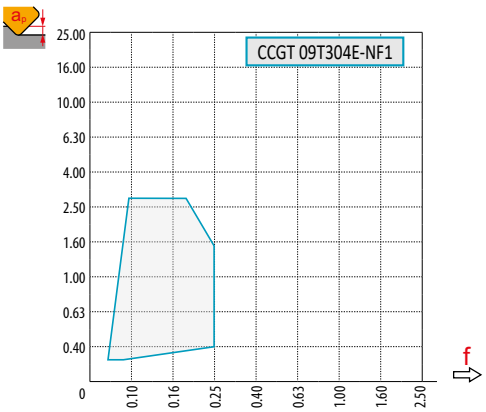
a_p 0.2 – 4.0

CCMT, DCMT, ECMT, SCMT, TCMT, VBMT, VCGT

NF1







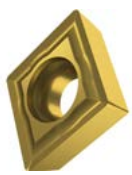
P	M	K	N	S	H
■	■		◪	■	◪

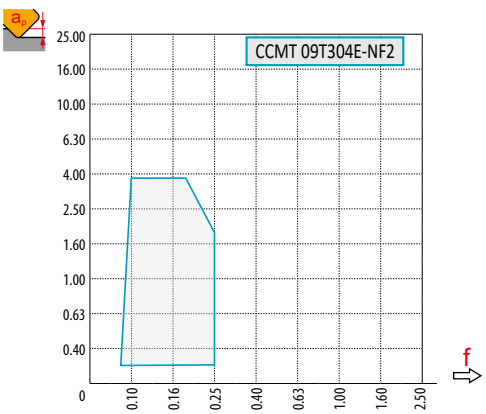
f ⇨ 0.04 – 0.35

a_p 0.3 – 3.5

CCGT, DCGT, SCGT, TCGT

NF2





P	M	K	N	S	H
◪	■	◪	◪	■	

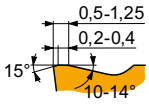
f ⇨ 0.05 – 0.45

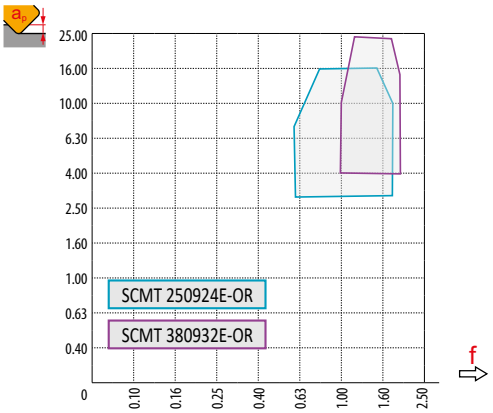
a_p 0.2 – 4.0

CCMT, EPMT, SCMT, TCMT, VCGT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

OR (SCMT)





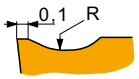
P	M	K	N	S	H
■	■	■		◪	

f ⇨ 0.60 – 2.00

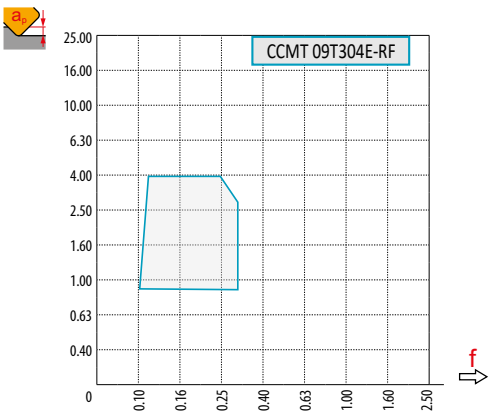
a_p 3.0 – 24.0

SCMT

RF



I.C.	R
6,35	1,0
9,525	1,5
12,7	2,5



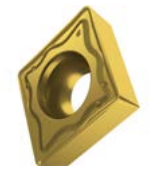
P	M	K	N	S	H
■	◪	■			◪

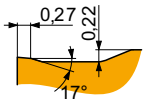
f ⇨ 0.10 – 0.60

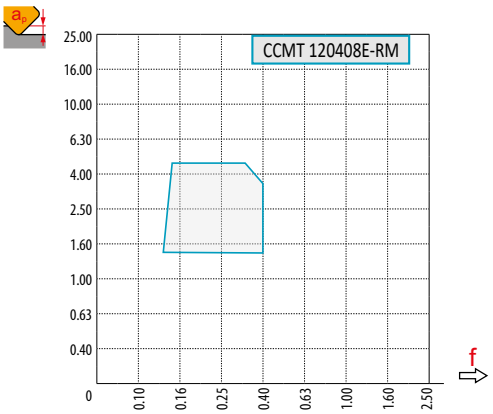
a_p 0.8 – 8.0

CCMT, DCMT, SCMT, TCMT, WCMT

RM







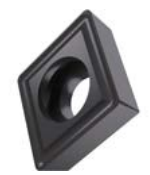
P	M	K	N	S	H
■	■	■		◪	◪

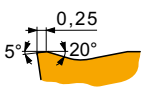
f ⇨ 0.10 – 0.50

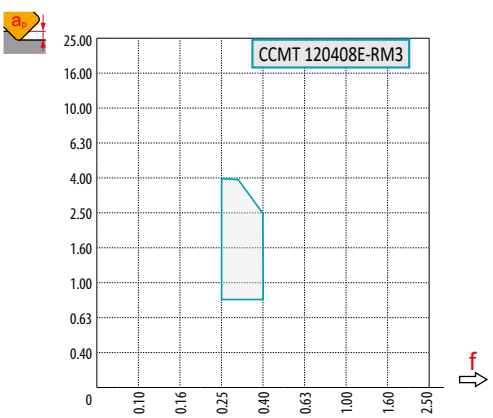
a_p 0.8 – 4.5

CCMT, DCMT, SCMT, TCMT, VBMT

RM3







P	M	K	N	S	H
■	◪	■			◪

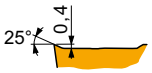
f ⇨ 0.15 – 0.90

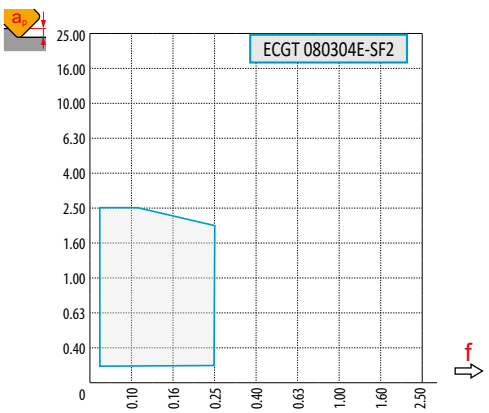
a_p 0.4 – 6.00

CCMT, SCMT, TCMT, RCMT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

SF2





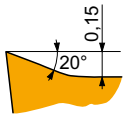
P	M	K	N	S	H
◪	■		◪	■	

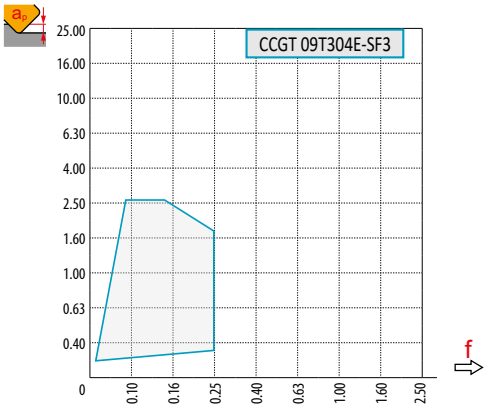
f ⇨ 0.02 – 0.28

a_p 0.1 – 2.5

ECGT, VCGT

SF3





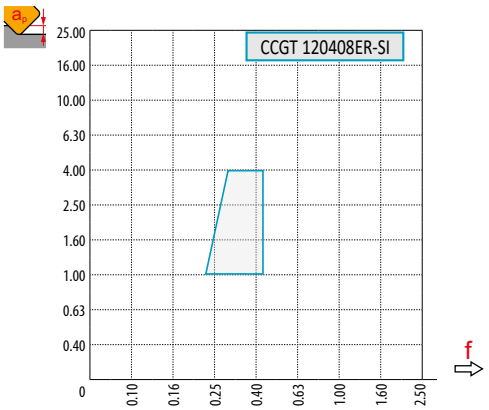
P	M	K	N	S	H
◪	■	◪	■	■	◪

f ⇨ 0.02 – 0.35

a_p 0.2 – 4.00

CCGT, DCGT, ECGT, SCGT, TCGT, VCGT

SI



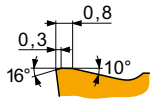
P	M	K	N	S	H
■	■	◪		■	

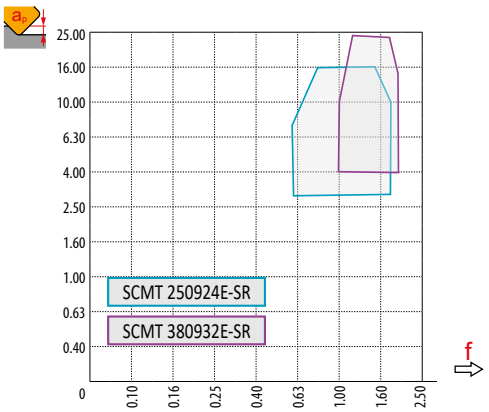
f ⇨ 0.08 – 0.45

a_p 0.4 – 4.0

CCGT, TCGT

SR (SCMT)





P	M	K	N	S	H
■	■	■			

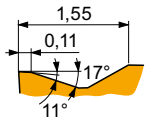
f ⇨ 0.60 – 2.0

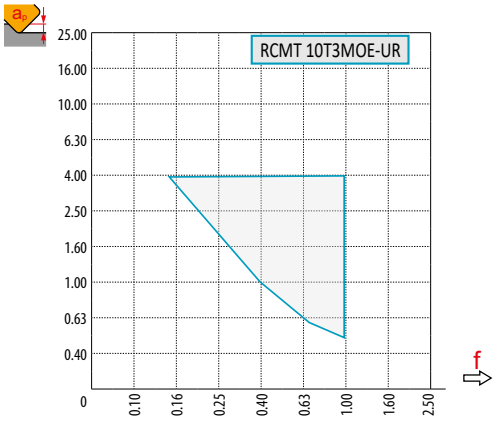
a_p 3.0 – 24.0

SCMT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO S

UR (RCMT)

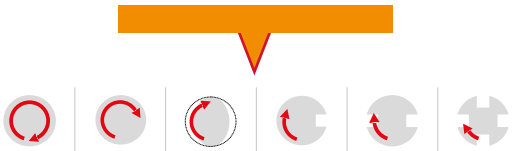




P	M	K	N	S	H
■	◪	■			

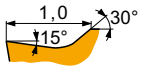
f ⇨ 0.15 – 1.00

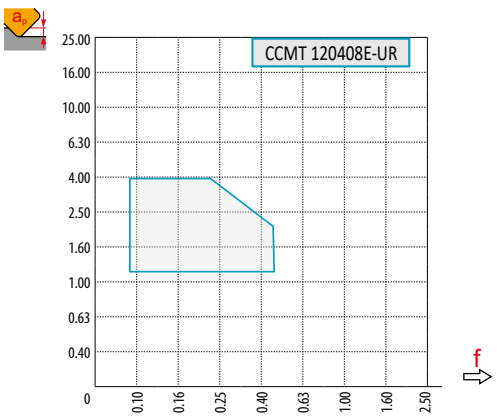
a_p 0.5 – 5.0



RCMT

UR

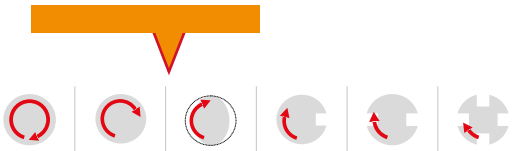




P	M	K	N	S	H
■	◪	■			

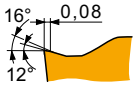
f ⇨ 0.10 – 0.40

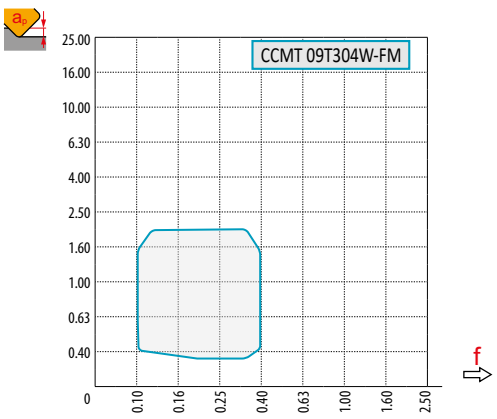
a_p 1.0 – 4.0



CCMT, DCMT, RCMT, SCMT, TCMT, VCMT, VBMT, WCMT

W-FM





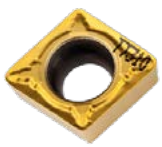
P	M	K	N	S	H
■	■	■			

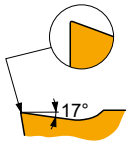
f ⇨ 0.1 – 0.4

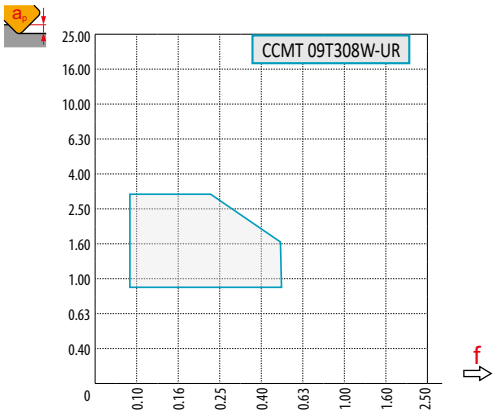
a_p 0.3 – 3.0

CCMT, DCMX

W-UR



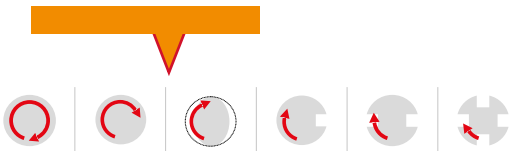




P	M	K	N	S	H
■	◪	■			

f ⇨ 0.08 – 0.5

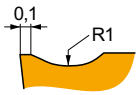
a_p 0.4 – 3.0

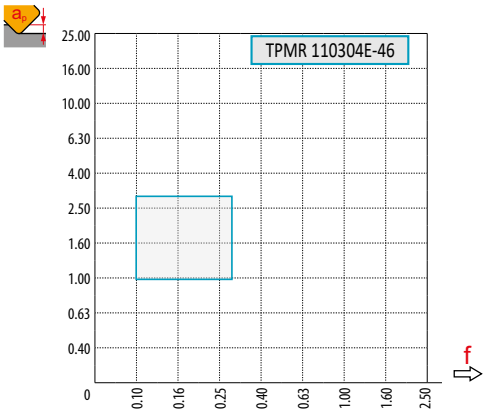


CCMT

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO C

46





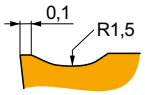
P	M	K	N	S	H
■	◪	■			

f: 0.10 – 0.30

a_p: 1.0 – 3.0

SPMR, TPMR

47



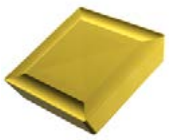
P	M	K	N	S	H
■	◪	■			

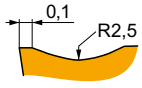
f: 0.10 – 0.40

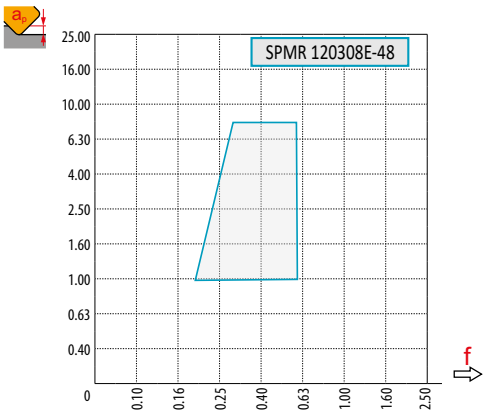
a_p: 0.8 – 4.0

TPMR

48







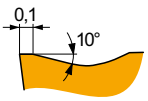
P	M	K	N	S	H
■	◪	■			

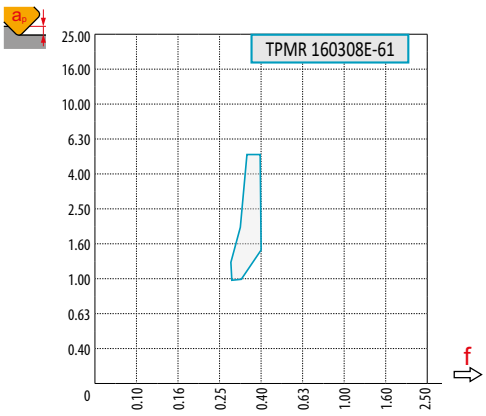
f: 0.20 – 0.60

a_p: 1.0 – 8.0

SPMR

61





P	M	K	N	S	H
■	◪	■			

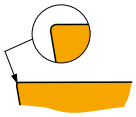
f: 0.30 – 0.40

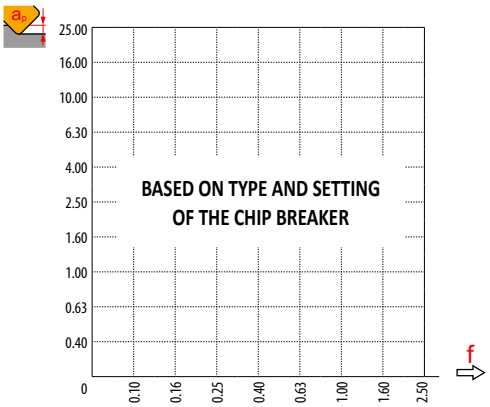
a_p: 1.0 – 5.3

TPMR

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO C

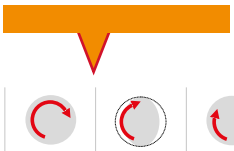
.PUN





P	M	K	N	S	H
◪		■			◪

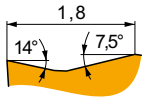
f ⇨	0.10 – 0.60
a_p	0.4 – 1.7.5

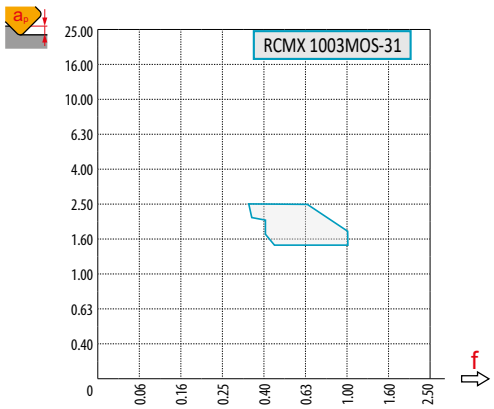


TPUN, SPUN

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

31 (RCMX)

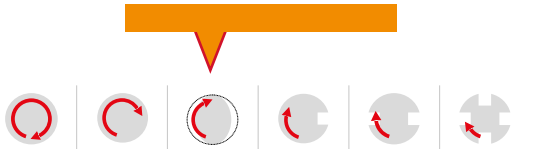




P	M	K	N	S	H
■	◪	■			

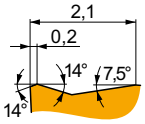
f 0.40 – 1.00

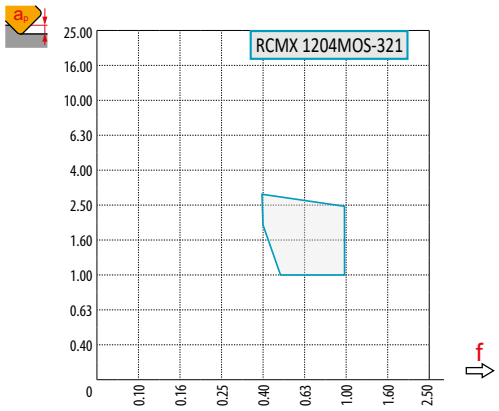
a_p 1.5 – 2.5



RCMX

321 (RCMX)





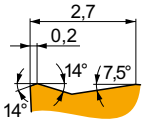
P	M	K	N	S	H
■		■			

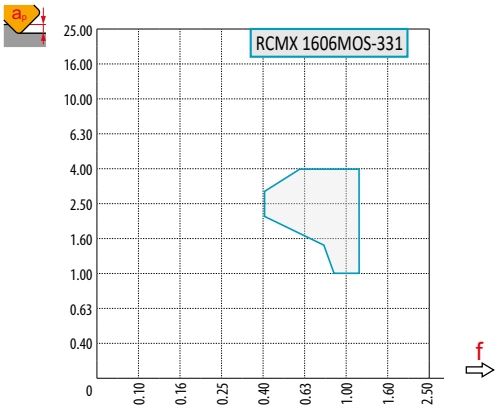
f 0.40 – 1.00

a_p 1.0 – 3.0

RCMX

331 (RCMX)





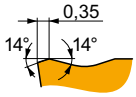
P	M	K	N	S	H
■		■			

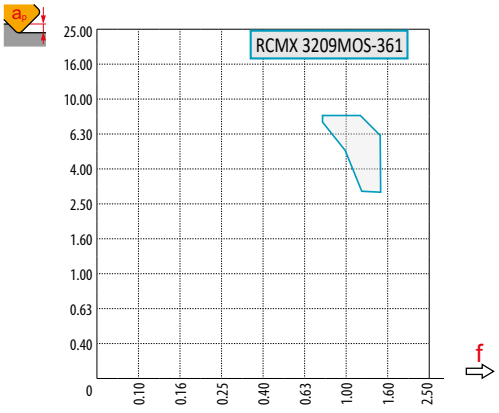
f 0.40 – 1.20

a_p 1.0 – 4.0

RCMX

361 (RCMX)





P	M	K	N	S	H
■		■			

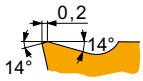
f 0.80 – 1.50

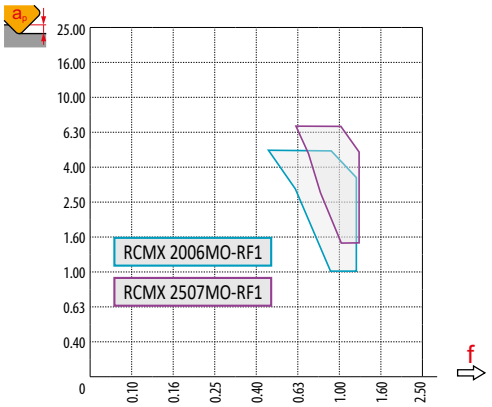
a_p 3.0 – 8.0

RCMX

GEOMETRY OF CUTTING POSITIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

RF1 (RCMX)





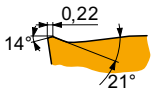
P	M	K	N	S	H
■		◪			

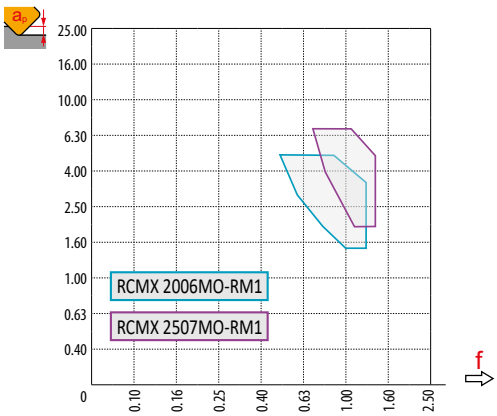
f ⇨ 0.45 (0.60) – 1.20 (1.25)

a_p 1.0 (1.5) – 5.0 (7.0)

RCMX 20, RCMX 25

RM1 (RCMX)





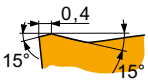
P	M	K	N	S	H
■		◪			

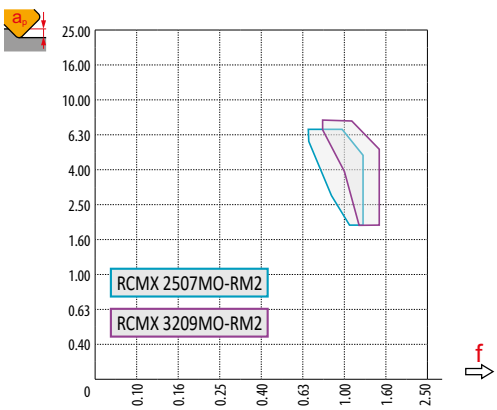
f ⇨ 0.50 (0.70) – 1.30 (1.40)

a_p 1.5 (2.0) – 5.0 (8.0)

RCMX 20, RCMX 25

RM2 (RCM.)





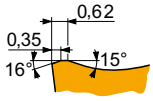
P	M	K	N	S	H
■		◪			

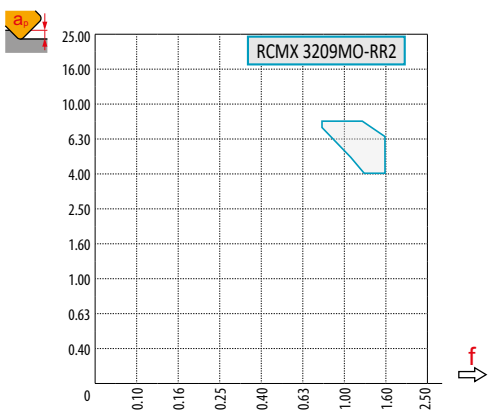
f ⇨ 0.70 (0.80) – 1.30 (1.50)

a_p 2.0 – 7.0 (8.0)

RCMX 25, RCMX 32

RR2 (RCM.)





P	M	K	N	S	H
■		■			◪

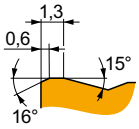
f ⇨ 0.80 – 1.60

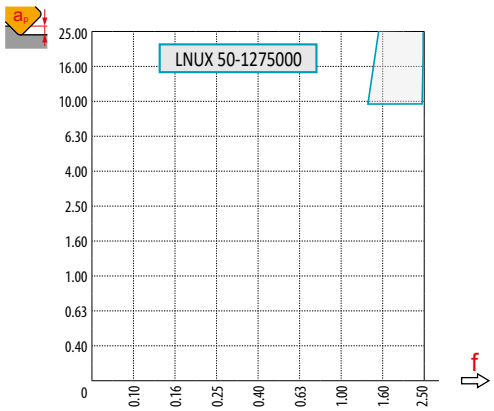
a_p 4.0 – 8.0

RCMX 32

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

000 (LNUX)





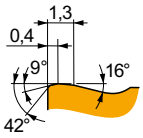
P	M	K	N	S	H
■		■			

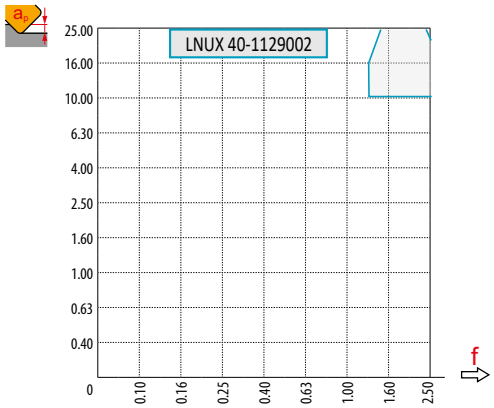
f ⇨ 1.20 – 2.50

a_p 10.0 – 36.0

LNUX 50

002 (LNUX)





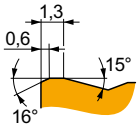
P	M	K	N	S	H
■		■			

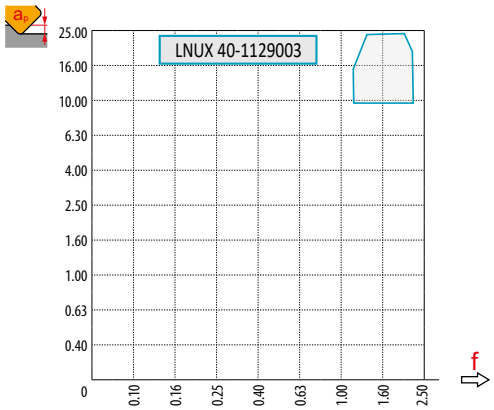
f ⇨ 1.30 – 2.60

a_p 10.0 – 27.0

LNUX 40

003 (LNUX)





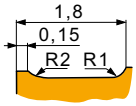
P	M	K	N	S	H
■		■			

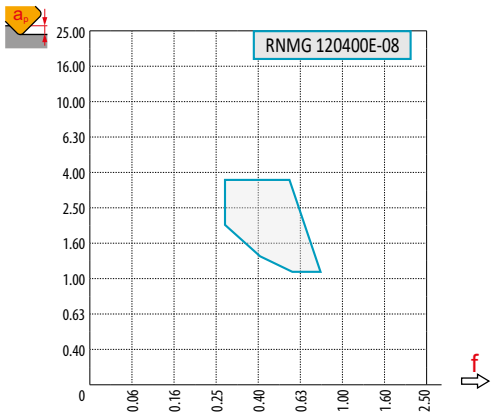
f ⇨ 1.20 – 2.50

a_p 10.0 – 27.0

LNUX 40

08 (RNMG)





P	M	K	N	S	H
◪		◪			◪

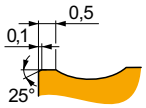
f ⇨ 0.30 – 0.80

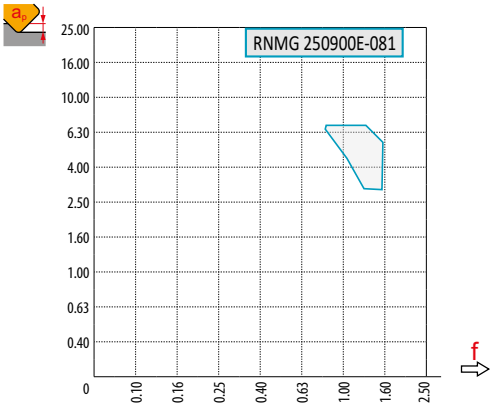
a_p 1.0 – 4.0

RNMG

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

81 (RNMG)





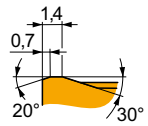
P	M	K	N	S	H
■		■			■

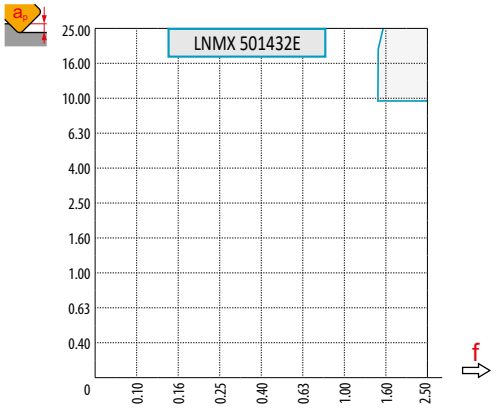
f 0.80 – 1.20

a_p 3.0 – 7.0

RNMG

432 (LNMX)





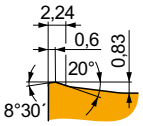
P	M	K	N	S	H
■		■			

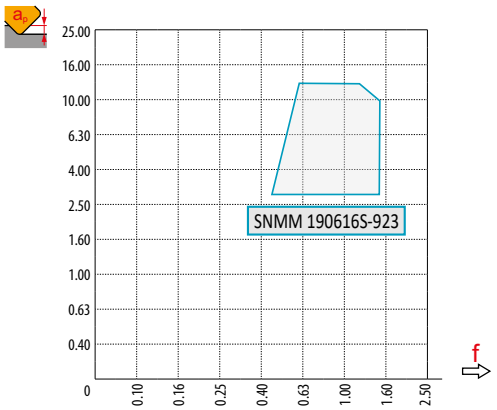
f 1.50 – 2.60

a_p 10.0 – 35.0

LNMX 50

923





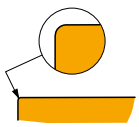
P	M	K	N	S	H
■	■			◪	

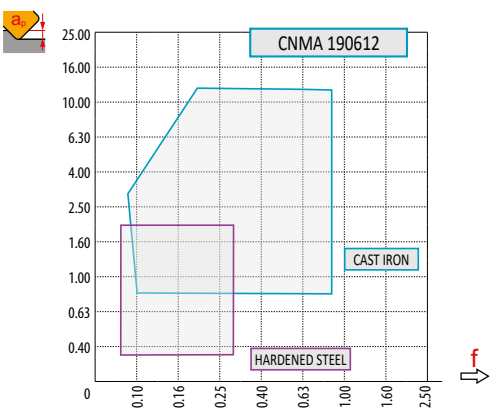
f 0.45 – 1.50

a_p 3.0 – 16.0

CNMM, SNMM

...A





P	M	K	N	S	H
		■			◪

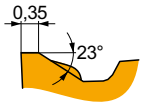
f 0.10 – 1.10

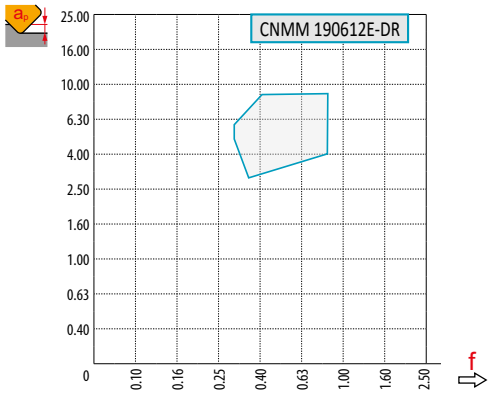
a_p 0.8 – 12.7

CNMA, DNMA, SNMA, TNMA, WNMA

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

DR





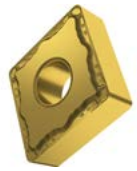
P	M	K	N	S	H
■	◪	◪			

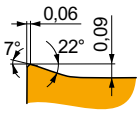
f: 0.30 – 0.85

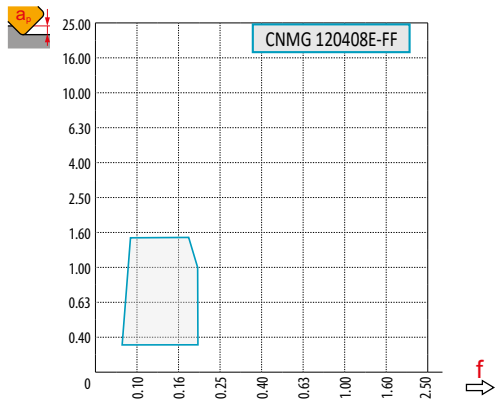
a_p: 2.5 – 9.0

CNMM, DNMM, SNMM, TNMM, WNMM

FF







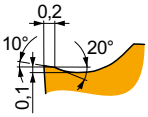
P	M	K	N	S	H
■	■	◪			

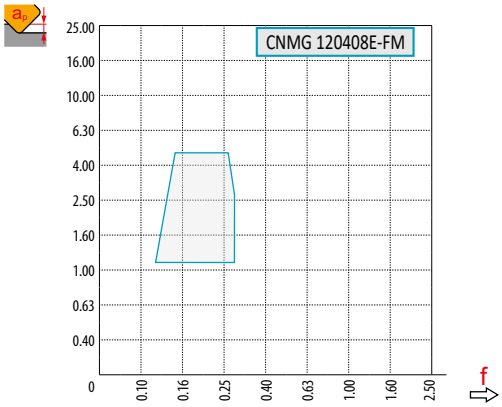
f: 0.06 – 0.25

a_p: 0.2 – 1.6

CNMG, DNMG, TNMG, VNMG, WNMG

FM





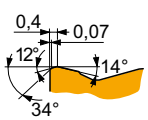
P	M	K	N	S	H
■	◪	■		◪	

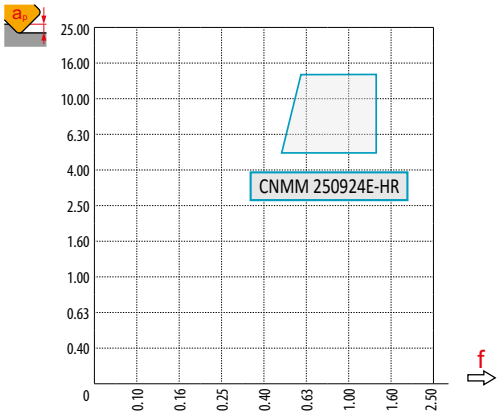
f: 0.1 – 0.5

a_p: 0.4 – 5.0

CNMG, DNMG, SNMG, TNMG, VNMG, WNMG

HR





P	M	K	N	S	H
■	◪	■			

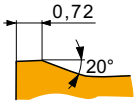
f: 0.50 – 1.40

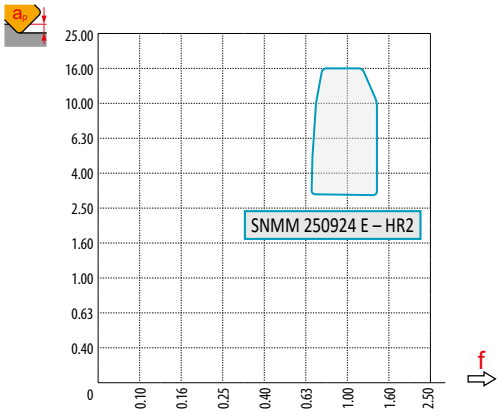
a_p: 5.0 – 14.0

CNMM, SNMM, TNMM

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

HR2





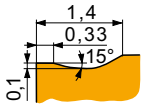
P	M	K	N	S	H
■	◪	■			

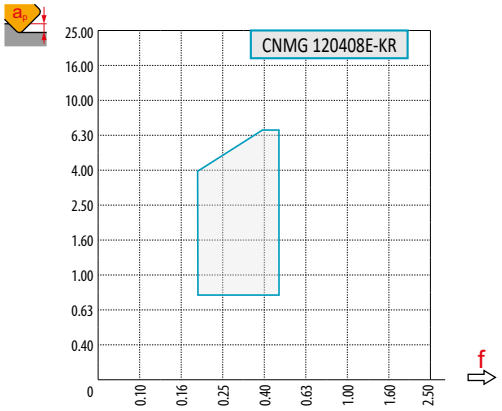
f ⇨ 0.5 – 1.4

a_p 3.0 – 16.0

CNMM, SNMM

KR





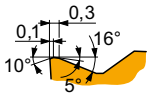
P	M	K	N	S	H
■		■			◪

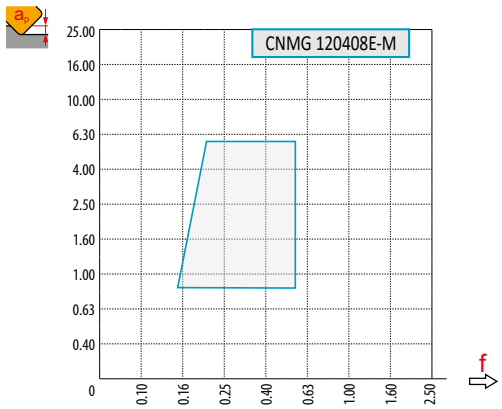
f ⇨ 0.2 – 0.7

a_p 0.4 – 7

CNMG, SNMG, TNMG, WNMG

M





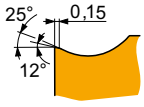
P	M	K	N	S	H
■		■			◪

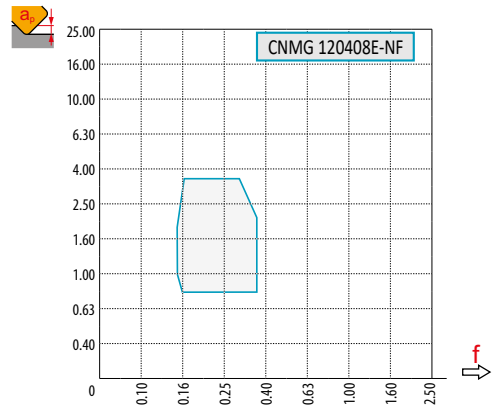
f ⇨ 0.17 – 0.80

a_p 0.8 – 8.0

CNMG, DNMG, SNMG, TNMG, VNMG, WNMG

NF





P	M	K	N	S	H
■	■	◪	◪	◪	

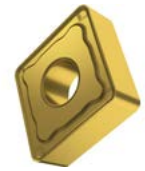
f ⇨ 0.1 – 0.35

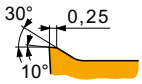
a_p 0.4 – 4.0

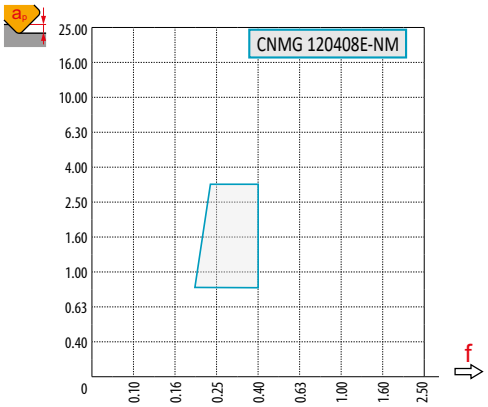
CNMG, DNMG, SNMG, TNMG, VNMG, WNMG

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

NM







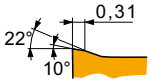
P	M	K	N	S	H
■	■		◪	■	

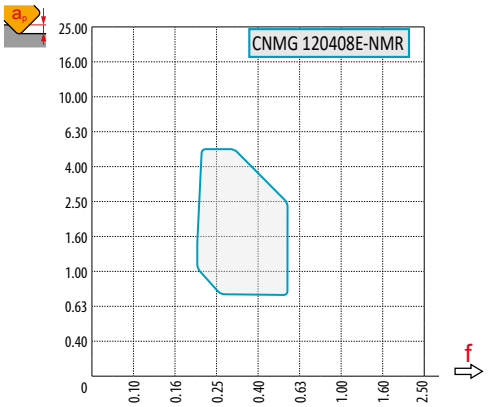
f ⇨ 0.15 – 0.55

a_p 0.5 – 8.0

CNMG, DNMG, TNMG, VNMG, WNMG

NMR





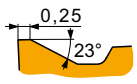
P	M	K	N	S	H
■	■			■	

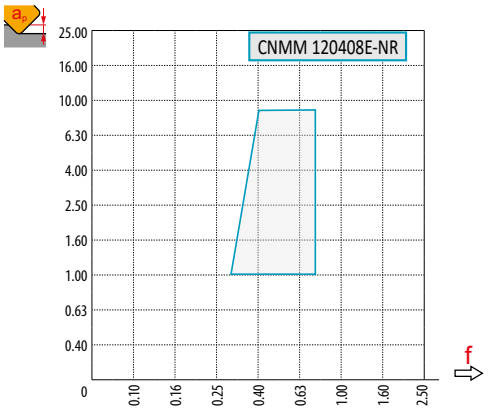
f ⇨ 0.18 – 0.70

a_p 0.4 – 8.0

CNMG, DNMG, SNMG, TNMG, VNMG, WNMG

NR





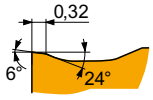
P	M	K	N	S	H
■	■	◪		◪	

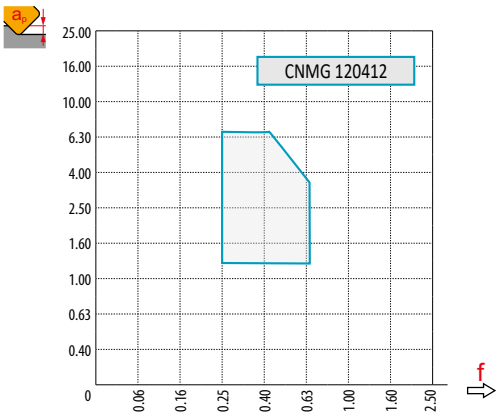
f ⇨ 0.25 – 0.80

a_p 1.0 – 9.0

CNMM, DNMM, SNMM, TNMM, WNMM

NRM





P	M	K	N	S	H
■	■			■	

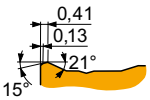
f ⇨ 0.23 – 1.0

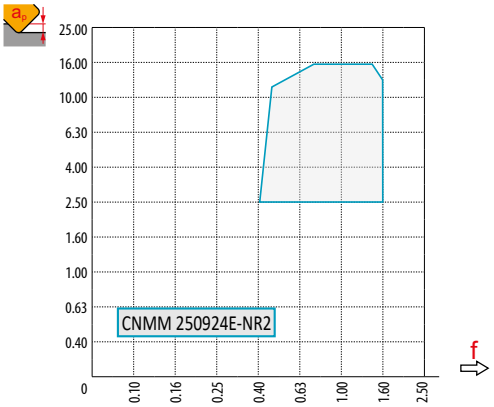
a_p 0.8 – 16.0

CNMG, CNMM, SNMG, SNMM

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

NR2





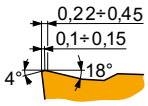
P	M	K	N	S	H
■	■	◪		◪	

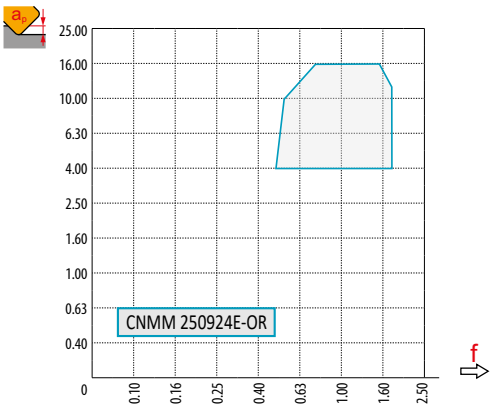
f ⇨ 0.2 – 1.6

a_p 1.0 – 16.0

CNMM, DNMM, SNMM, TNMM, WNMM

OR





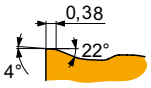
P	M	K	N	S	H
■	◪	■		◪	

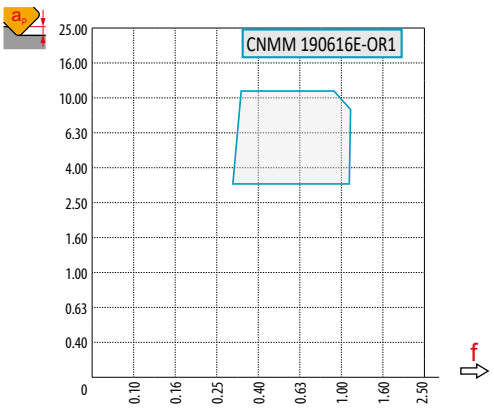
f ⇨ 0.25 – 1.70

a_p 2.0 – 16.0

CNMM, DNMM, SNMM, TNMM, WNMM, SCMT

OR1





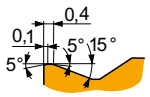
P	M	K	N	S	H
■	◪	◪		◪	

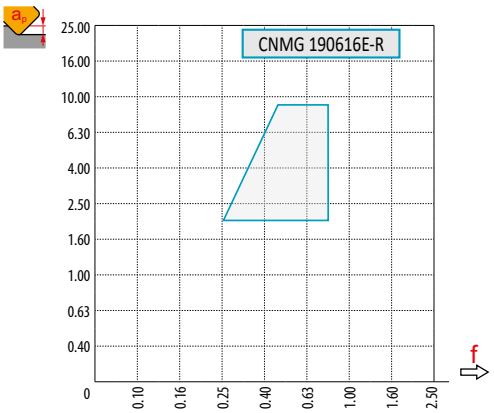
f ⇨ 0.3 – 1.0

a_p 3.0 – 11.0

CNMM, SNMM

R





P	M	K	N	S	H
■		■			◪

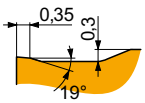
f ⇨ 0.25 – 0.80

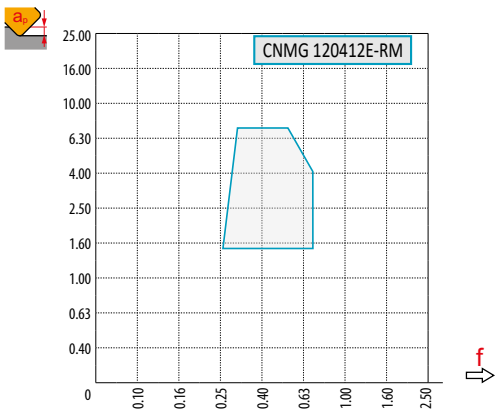
a_p 2.0 – 9.0

CNMG, DNMG, SNMG, TNMG, WNMG

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

RM





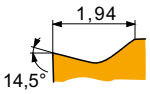
P	M	K	N	S	H
■	◪	◪			

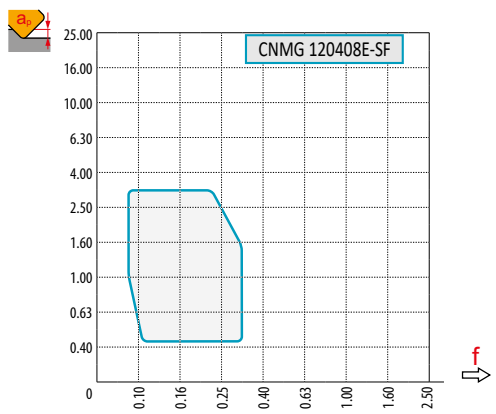
f ⇨ 0.20 – 1.20

a_p 1.0 – 15.0

CNMG. DNMG, SNMG, TNMG, WNMG

SF





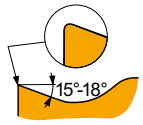
P	M	K	N	S	H
■	■	■	◪	■	■

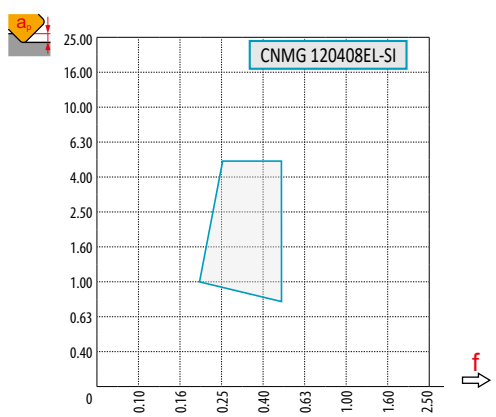
f ⇨ 0.08 – 0.35

a_p 0.2 – 3.5

CNGG, CNMG, DNMG,
SNMG, TNMG, VNMG, WNMG

SI





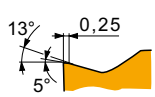
P	M	K	N	S	H
■	■		◪	◪	

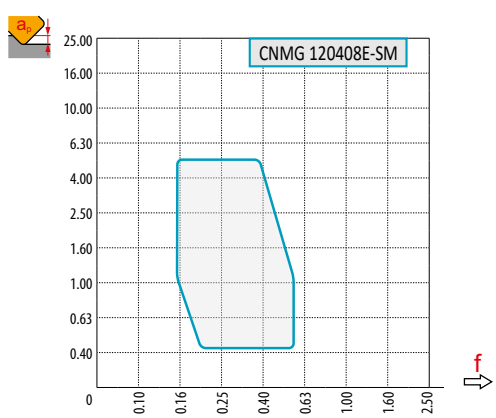
f ⇨ 0.20 – 0.50

a_p 0.4 – 5.0

CNMG, DNMG, TNMG, WNMG

SM





P	M	K	N	S	H
■	■	■	◪	■	◪

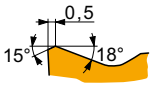
f ⇨ 0.15 – 0.55

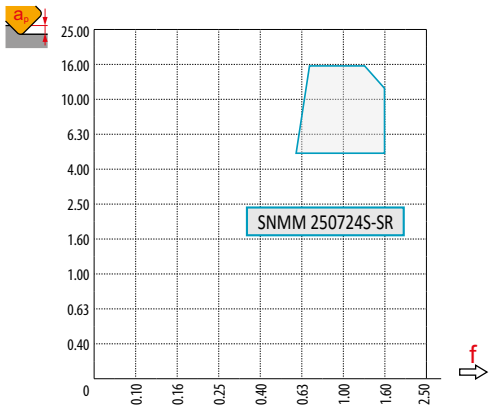
a_p 0.4 – 6.0

CNMG, DNMG, SNMG, TNMG, VNMG, WNMG

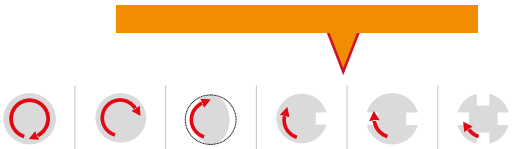
GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

SR



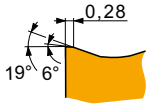


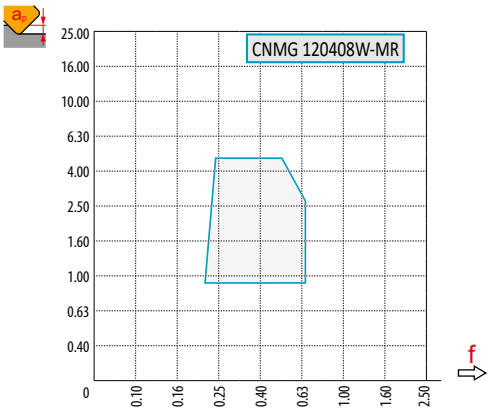
P	M	K	N	S	H
■	◪	■			
f ⇨	0.70 – 1.60				
a_p	5.0 – 16.0				



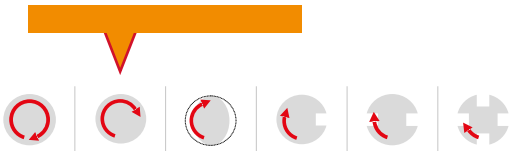
SNMM, SNMX

W–MR



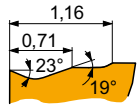


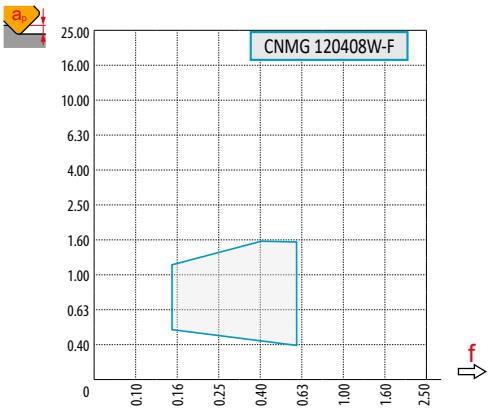
P	M	K	N	S	H
■	◪	◪			
f ⇨	0.2 – 0.75				
a_p	0.5 – 5.0				



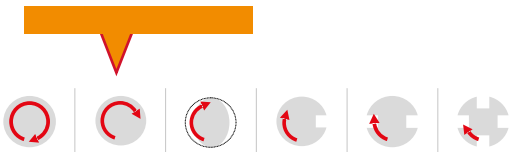
CNMG, WNMG, DNMG

W–F



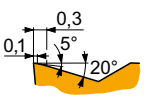


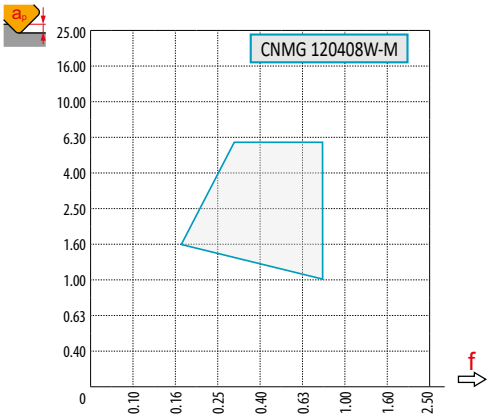
P	M	K	N	S	H
■		■			
f ⇨	0.10 – 0.60				
a_p	0.4 – 1.6				



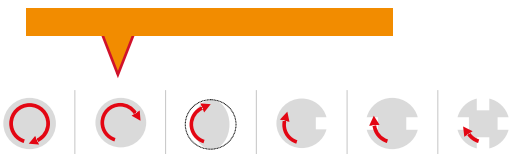
CNMG, WNMG

W–M





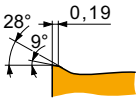
P	M	K	N	S	H
■		◪			
f ⇨	0.15 – 1.00				
a_p	0.8 – 4.0				

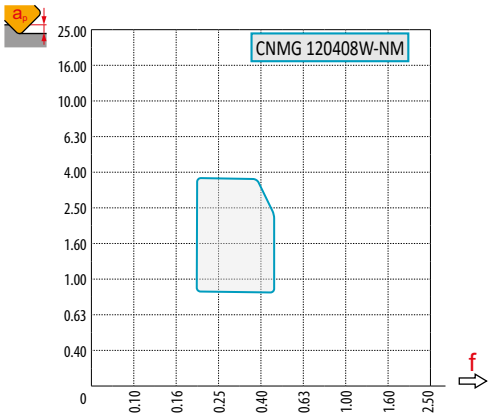


CNMG, WNMG

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO P, M, D

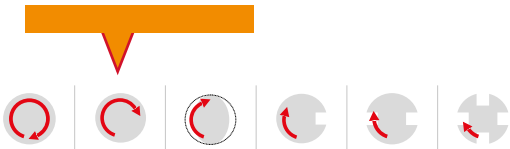
W-NM





P	M	K	N	S	H
■	◪	◪		◪	

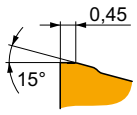
f	0.15 – 0.55
a_p	0.5 – 3.5

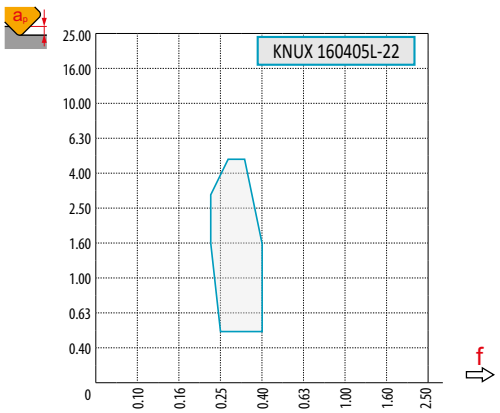


?	CNMG, DNMX, WNMG

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO C

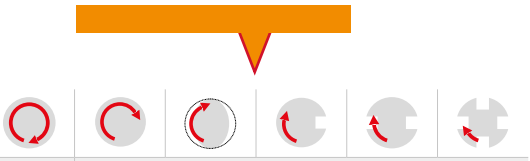
22

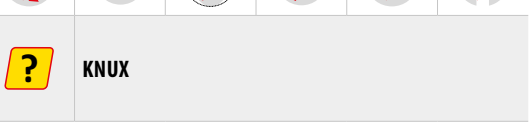




P	M	K	N	S	H
■	◪	◪			

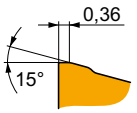
f	0.23 – 0.55
a_p	0.50 – 4.80

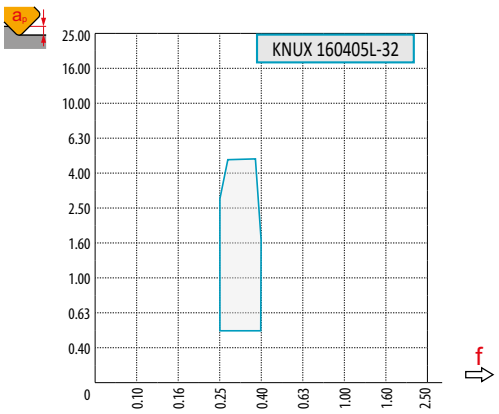




KNUX

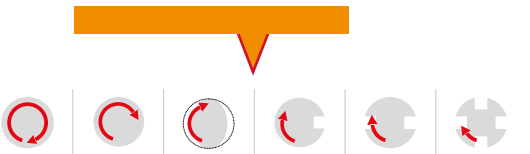
32

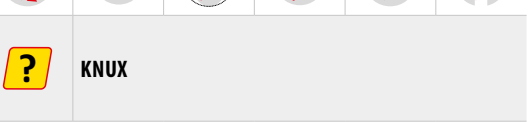




P	M	K	N	S	H
■	◪	◪			

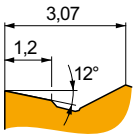
f	0.25 – 0.6
a_p	0.50 – 4.80

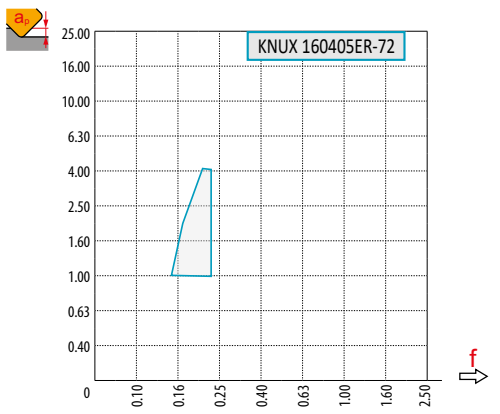




KNUX

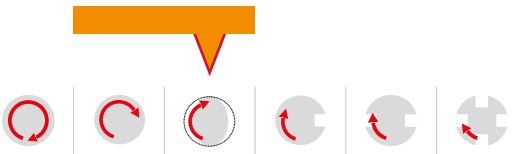
72

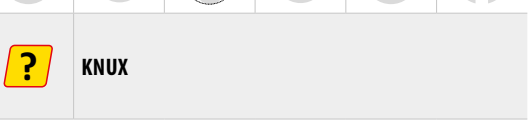




P	M	K	N	S	H
■	◪	■		◪	

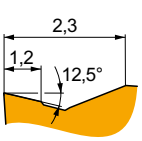
f	0.15 – 0.23
a_p	1.0 – 4.0

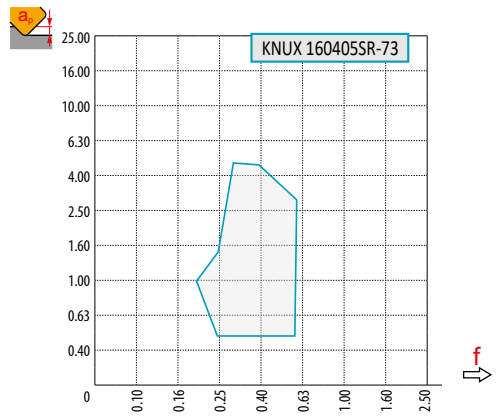




KNUX

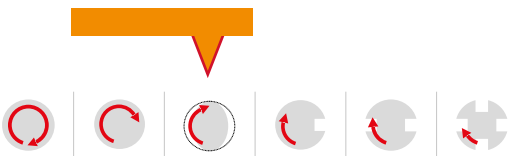
73

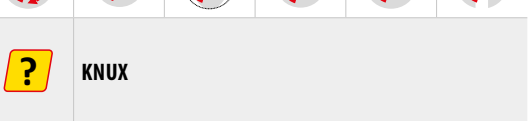




P	M	K	N	S	H
■	◪	■		◪	

f	0.20 – 0.60
a_p	0.5 – 4.8

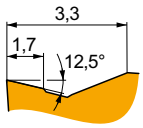


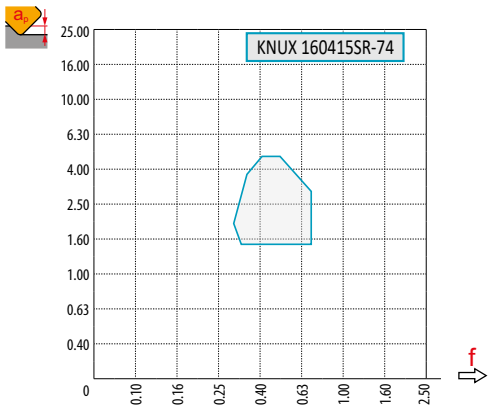


KNUX

GEOMETRY OF CUTTING NEGATIVE INSERTS – CLAMPING DESIGNATION ISO C

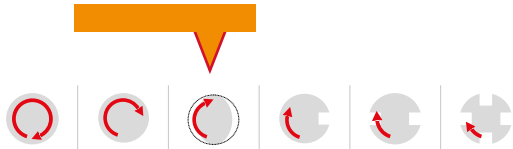
74





P	M	K	N	S	H
■	◪	■		◪	

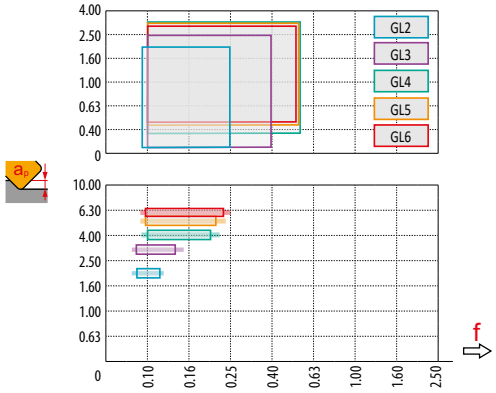
f	0.30 – 0.7
a_p	1.5 – 4.8



?	KNUX

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO X AND G

GM (GL.D)

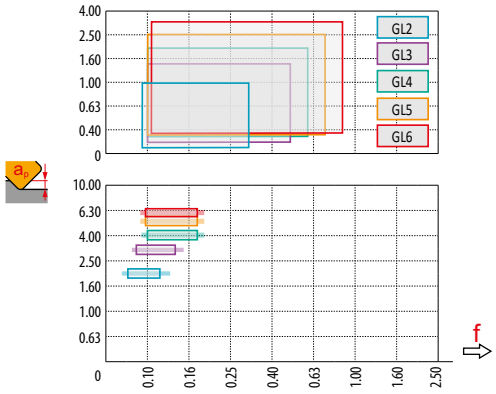


P	M	K	N	S	H
■	■	◪		◪	

See diagram

GL. D

MM (GL.D)

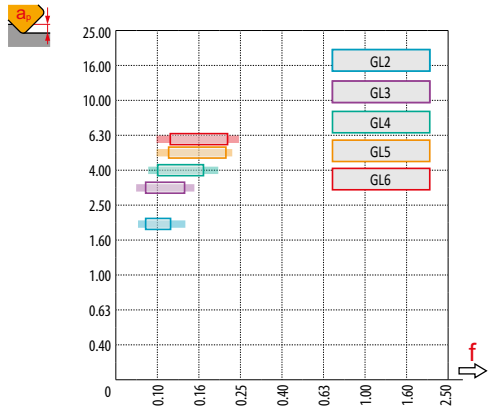


P	M	K	N	S	H
■	■	■		◪	

See diagram

GL. D

PM (GL. D)

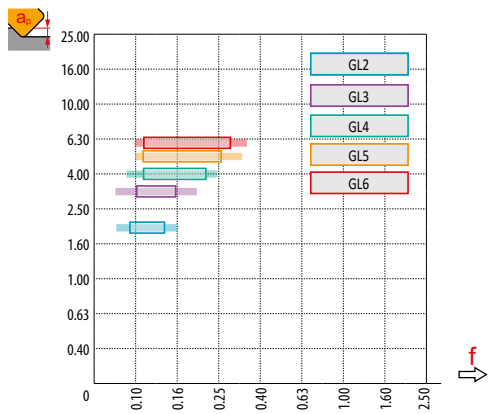


P	M	K	N	S	H
■	■	◪		◪	

See diagram

GL. D

PR (GL. D)



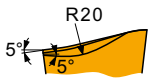
P	M	K	N	S	H
■	◪	■			

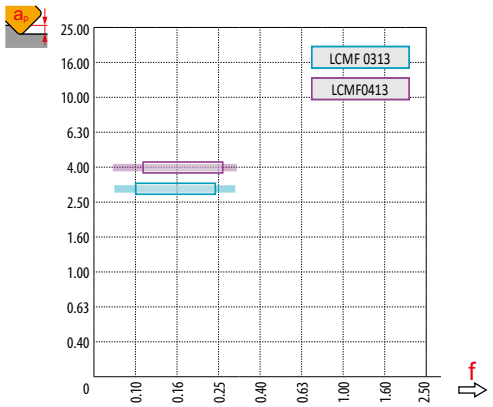
See diagram

GL. D

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO X AND G

13 CM (LCMF)



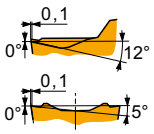


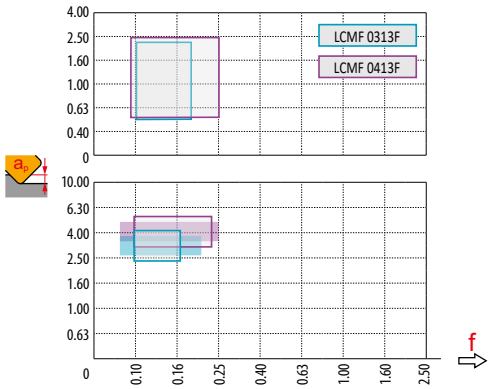
P	M	K	N	S	H
■		◪			

See diagram

LCMF 13 CM

13 F (LCM.)



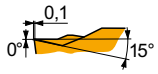


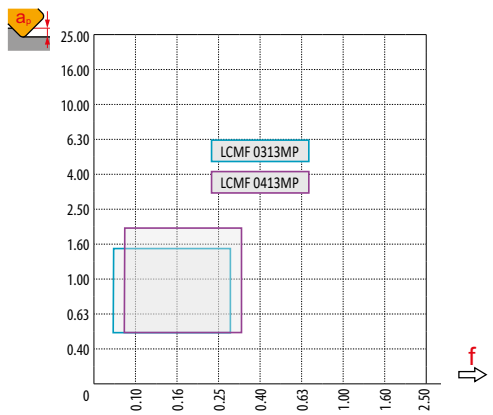
P	M	K	N	S	H
■		◪			

See diagram

LCMF 13 F, LCMR 13 F

13 MP (LCM.)



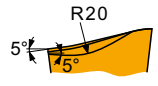


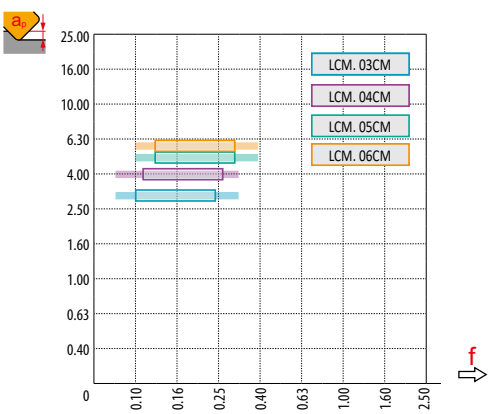
P	M	K	N	S	H
■		■			

See diagram

LCMF 13 MP, LCMR 13 MP

16 CM (LCM.)





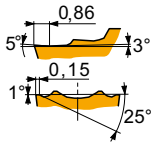
P	M	K	N	S	H
■		◪			

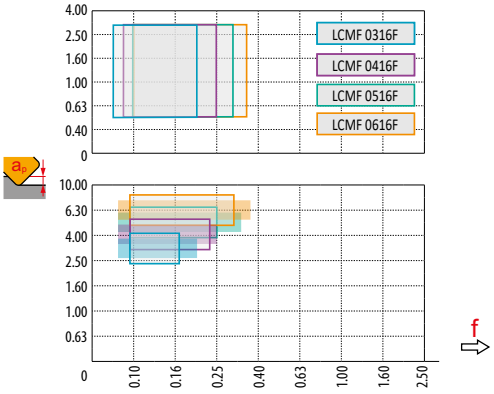
See diagram

LCMF 16 CM, LCMR 16 CM

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO X AND G

16 F (LCM.)



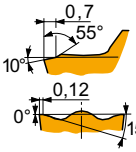


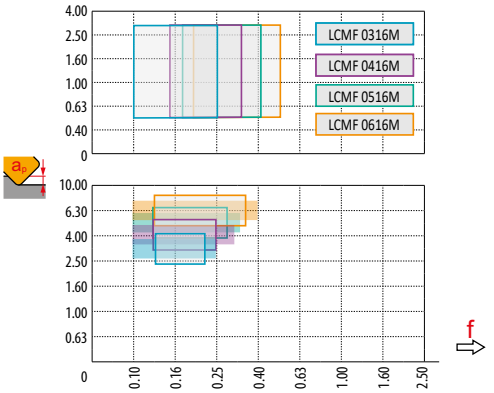
P	M	K	N	S	H
■		◪			

See diagram

LCMF 16 F, LCMR 16 F

16 M (LCM.)



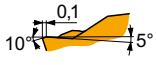


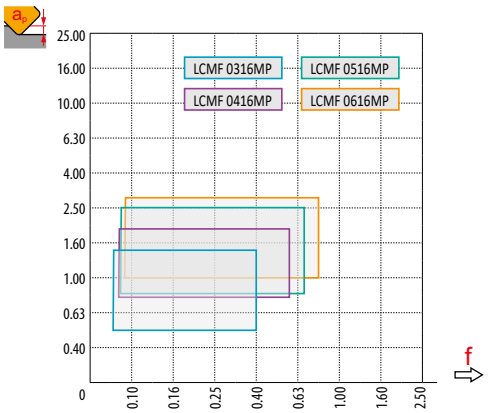
P	M	K	N	S	H
■		■			◪

See diagram

LCMF 16 M, LCMR 16 M

16 MP (LCM.)



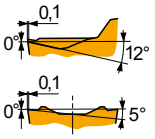


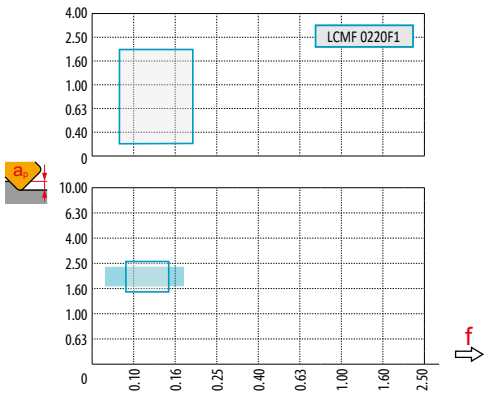
P	M	K	N	S	H
■		■			

See diagram

LCMF 16 MP, LCMR 16 MP

20 F1 (LCMF)





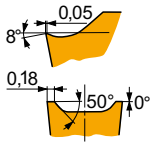
P	M	K	N	S	H
■	◪	◪			

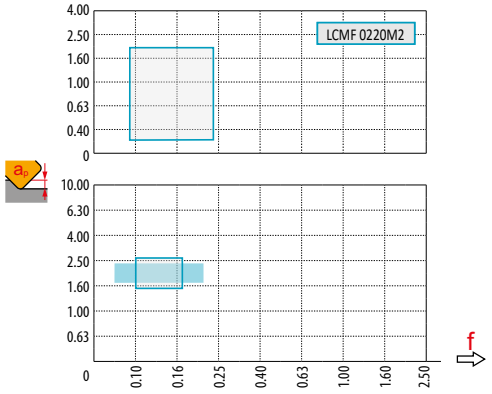
See diagram

LCMF

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO X AND G

20 M2 (LCMF)

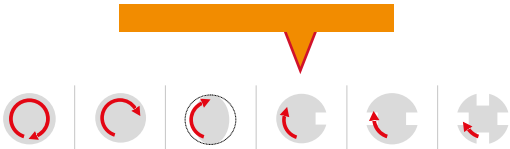




P	M	K	N	S	H
■	◪	◪			

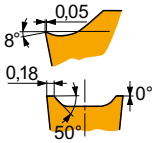
f ⇨ 0.09 – 0.23

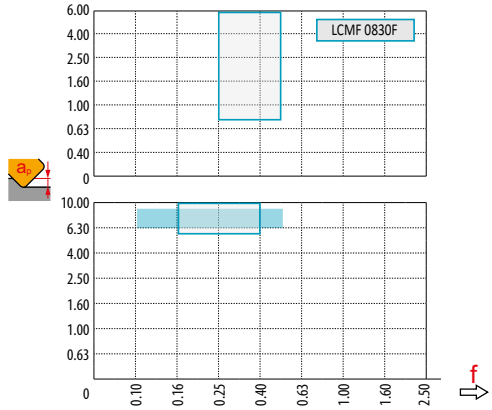
a_p 0.3 – 1.5



? **LCMF**

30 F (LCM.)

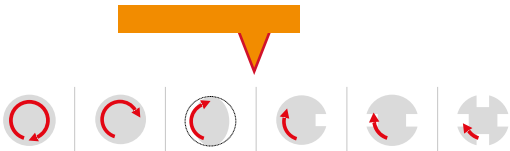




P	M	K	N	S	H
■		◪			

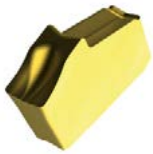
f ⇨ 0.1 – 0.5

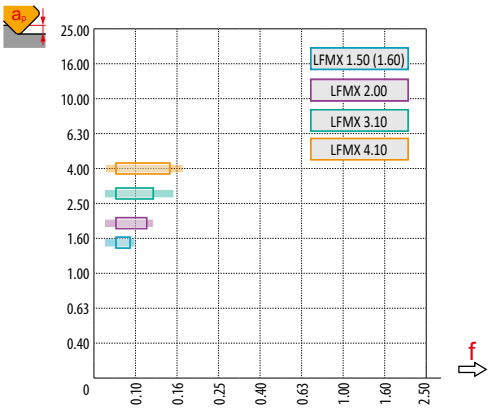
a_p 0.8 – 6.0



? **LCMF 30 F, LCMR 30 F**

F1 (LFMX)

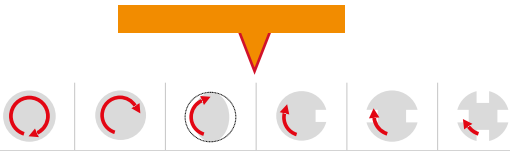




P	M	K	N	S	H
■	◪	■			

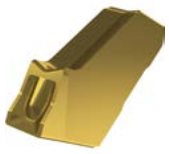
f ⇨ See diagram

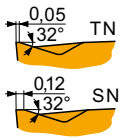
a_p

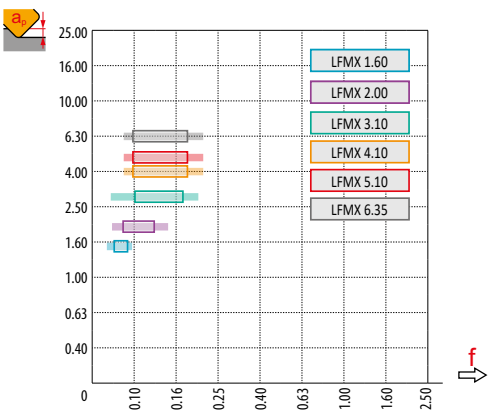


? **LFMX**

F2 (LFMX)



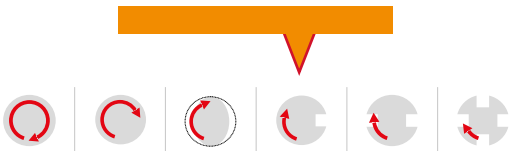




P	M	K	N	S	H
■	◪	■			

f ⇨ See diagram

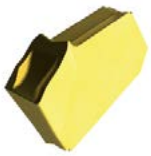
a_p

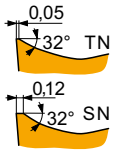


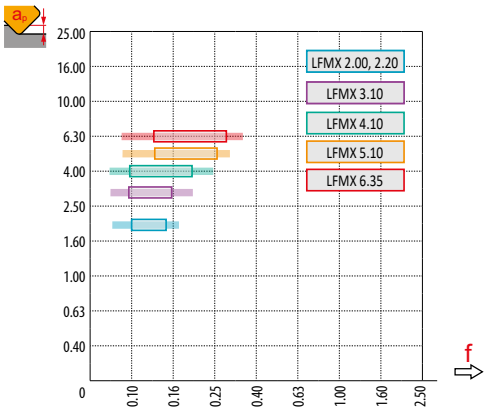
? **LFMX**

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO X AND G

M2 (LFMX)

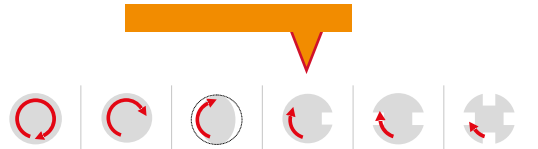






P	M	K	N	S	H
■	◪	◪			

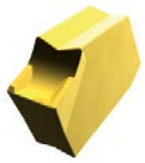
f, a_p — See diagram

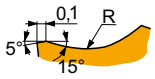


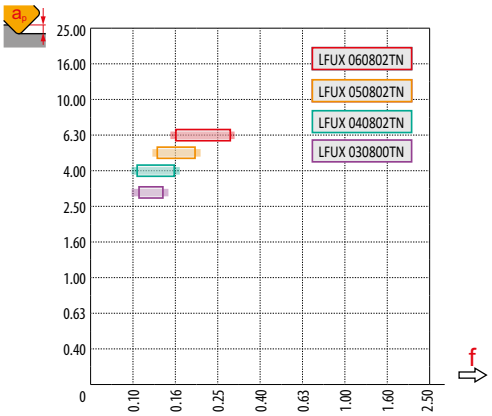
?

LFMX

LFUX

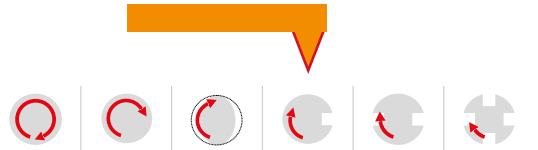






P	M	K	N	S	H
■		■			

f, a_p — See diagram



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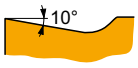
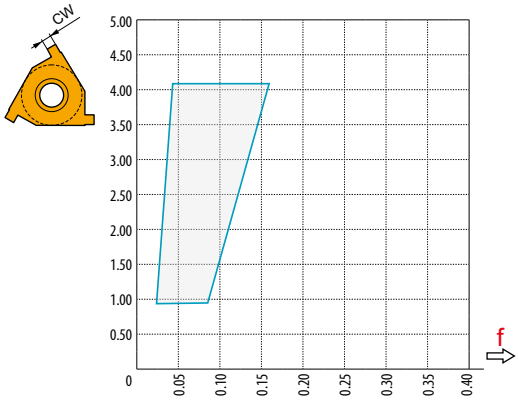
LFUX

GEOMETRY OF CUTTING GROOVING INSERTS – CLAMPING DESIGNATION ISO S

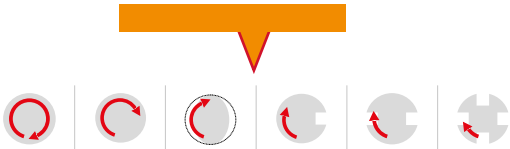
TN. EXT





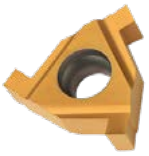
P	M	K	N	S	H
■	◪	◪			

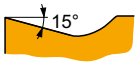
f ⇨ CW — See diagram

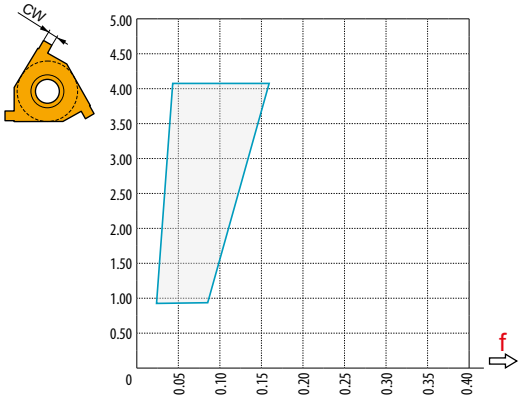


TN R EXT; TN ZZ EXT

TN. INT

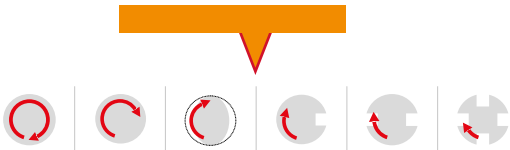






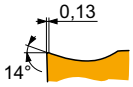
P	M	K	N	S	H
■	◪	◪			

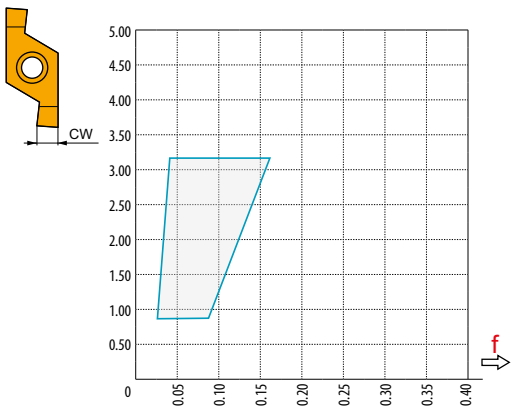
f ⇨ CW — See diagram



TN R INT; TN ZZ INT

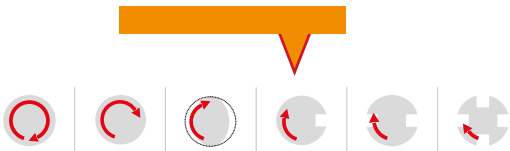
X61





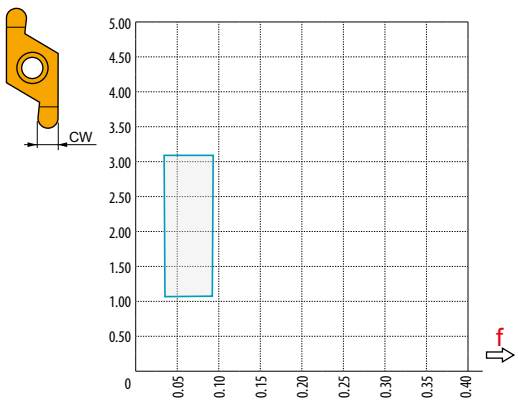
P	M	K	N	S	H
■	◪	◪			

f ⇨ CW — See diagram



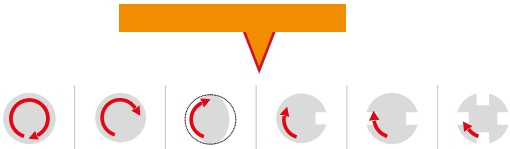
X61; X61-1

X61 R



P	M	K	N	S	H
■	◪	◪			

f ⇨ CW — See diagram



X61 R; X61 R-1

T	9	3	1	5
Operation	Coating/Substrate	Generation	ISO range	

D	Drilling
M	Milling
T	Turning
G	Grooving and Parting off

0 PVD 1 CVD	Special application
2 PVD 3 CVD	Free
4 PVD 5 CVD	Group K, H
6 PVD 7 CVD	Group M, S
8 PVD 9 CVD	Universal
B	CBN
C	Ceramic
D	PCD
T	Cermet

1 – 9

01 – 50	
	**01 – 05**
	**05 – 10**
	**10 – 20**
	**20 – 30**
	**30 – 40**
	**40 – 50**

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
T9226	P15 - P35 M10 - M30 K15 - K35 S15 - S25	■ ■ ◪ □				MT-CVD		FGM	+ + +	Grade designed for heave roughing applications. A versatile grade with high resistance to mechanical damage and retains very good wear resistance. Usable at lower cutting speeds.
T9310	P01 - P15 K05 - K20 H10 - H20	■ ◪ ◪				MT-CVD		FGM	+ +	Grade with high abrasion resistance which can be used for slightly interrupted cutting. It will be used for finishing or semi-roughing operations. This material can also be used for roughing operations provided the machine-tool-workpiece configuration is sufficiently rigid.
T9315	P05 - P25 K05 - K25 H10 - H20	■ ◪ ◪				MT-CVD		FGM	+ +	A versatile grade with excellent wear resistance properties even under intense cutting conditions. It can also be used for operations with interrupted cuts. With it's well balanced properties this grade can be first choice for a wide range of turning operations. Not suited to low cutting speeds.
T9316	P10 - P20 M05 - M15 K10 - K30 H15 - H25	■ ◪ ■ ◪				MT-CVD		FGM	+ + +	Grade designed for railway applications. A versatile grade with excellent wear resistance properties. Usable at lower and high cutting speeds.
T9325	P15 - P35 M10 - M30 K15 - K35 S10 - S20	■ ■ ◪ ◪				MT-CVD		FGM	+ +	From a technological perspective this is an extremely versatile grade with high resistance to mechanical damage in adverse cutting conditions and retains excellent wear resistance. The correct application of this material requires high cutting speeds.
T9335	P20 - P45 M15 - M40 S15 - S25	■ ■ ◪				MT-CVD		FGM	+ + +	One of the toughest grades which is especially suitable for adverse cutting conditions at medium to high feed rates and medium cutting speeds. Compared to its predecessors, M15 – M40 it is not only tougher, but also more abrasion resistant which will be useful when using intensive cutting conditions.
T7325	P15 - P35 M10 - M25 S10 - S25	◪ ■ ■				MT-CVD		FGM	+ + +	One of the most universal turning grades. Especially designed for stainless steel machining. Optimal balance between wear resistance and performance reliability. Suitable for broad variety of application in turning operations.
T7335	P20 - P40 M20 - M40 S15 - S25	◪ ■ ■				MT-CVD		FGM	+ + +	Grade with functionally graded substrate, featuring very high operational reliability and very good wear-resistance. It is best suited to use in the machining of very tough M20 – M40 materials.
T5305	P05 - P15 K01 - K15 H05 - H15	◪ ■ ◪				MT-CVD		H	+	Grade with very high resistance to chemical wear; suitable for finishing operations using high cutting speeds. With its high abrasion resistance, it is also suitable for productive K01 – K15, machining of hardened and treated materials.
T5315	P10 - P25 K10 - K25 H15 - H25	◪ ■ ◪				MT-CVD		H	+	Grade intended primarily for productive machining which has high abrasion resistance and good operational reliability. Due to its properties, this material is particularly suitable for roughing and finishing operations for good or slightly adverse cutting conditions.
6640	P20 - P40 M20 - M35 K25 - K40	■ ■ ■				MT-CVD		H	+ + +	One of the toughest turning materials which can be used especially in roughing operations, or where operational reliability under adverse cutting conditions is a priority. Another ideal choice for machines working with low to medium cutting speeds and medium to high feed rates.

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
G8330	P25 - P40 M20 - M35 K20 - K40 S15 - S25	■ ■ ■ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▰	PVD		submicron H	+ + +	Universal cutting grade for grooving and parting-off applications. This grade is characterized by its exceptional reliability and versatility. Developed to fit machining conditions for most workpiece materials.
T0315	N05 - N20	■	▰▰▱▱	▰▰▱▱	▰▰▰▱	PVD			+ +	Submicron grade for turning non-ferrous metals and their alloys with a balance of wear resistance and toughness. It is provided with a unique coating with excellent friction properties.
T6310	P01 - P15 M01 - M15 K05 - K20 N05 - N20 S01 - S15 H01 - H15	■ ■ ■ ■ ■ ■	▰▰▰▱	▰▰▰▱	▰▰▱▱	PVD		ultra submicron H	+ + +	High wear resistant turning grade with top PVD coating. Suitable for finishing operation and applications, where sharp cutting edge together with high flank wear resistance is of high importance
T8010	P05 - P15 M05 - M15 K10 - K20 S10 - S15	■ ■ ■ ◪	▰▰▰▱	▰▰▰▱	▰▰▰▱	PVD		submicron H	+ + +	This grade is suitable for continuous high precision thread turning of steels, stainless steel, cast iron and super alloys. Offering excellent wear resistance while ensuring operational reliability
T8030	P25 - P40 M20 - M35 K20 - K40 N15 - N30 S15 - S25	■ ■ ■ ◪ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▰	PVD		submicron H	+ + +	Undoubtedly the most versatile grade it is suitable for machining all types of materials and can be applied in almost all turning operations. It's main benefits are high operational reliability and excellent frictional properties; it is therefore suited to applications at medium to low cutting speeds.
T8315	P05 - P20 M05 - M20 K05 - K25 N05 - N25 S05 - S15 H05 - H15	◪ ■ ■ ■ ◪ ■	▰▰▰▱	▰▰▰▱	▰▰▰▱	PVD		submicron H	+ +	Grade featuring excellent abrasion resistance while maintaining above average operational reliability, it is suitable for machining at medium to high cutting speeds in short chipping harder materials.
T8330	P25 - P40 M20 - M35 K20 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ■ ◪ ◪ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▰	PVD		submicron H	+ + +	Undoubtedly the most versatile cutting material, this is useful for machining of all types of machined materials and is practically applicable in almost all types of turning operations. Its main benefits are its high operational reliability and very good frictional properties; it is therefore suitable for applications at medium and lower cutting speeds.
T8430	P20 - P40 M20 - M35 K25 - K40 N15 - N30 S15 - S25 H15 - H25	■ ■ ◪ ◪ ◪ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▰	PVD		submicron H	+ + +	Undoubtedly the most versatile cutting material, this is useful for machining of all types of machined materials and is practically applicable in almost all types of turning operations. Its main benefits are its high operational reliability and very good frictional properties; it is therefore suitable for applications at medium and lower cutting speeds.
T8345	P30 - P50 M20 - M40 K30 - K40 S20 - S30	■ ◪ ◪ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▰+	PVD		submicron H	+ + +	This is the toughest turning grade, which is intended mainly for machining under the worst cutting conditions and in applications with the highest requirements for operating reliability. Because of these properties, this material is recommended for lower cutting speeds.
HF7	M10 - M20 K10 - K25 N10 - N25	◪ ■ ■	▰▰▰▰	▰▱▱▱	▰▰▰▰	×		submicron H	+ +	Uncoated grade which is primarily designed for machining non-ferrous metals; but can also be used for other machined materials (except steel). This material can be used in turning, milling, and even boring.

Grade Identification	Area of Application	Application	Feed	Cutting speed	Resistance to adverse Working Conditions	Coating	Colour	Substrate	Coolant benefit	Grade description
H07	M05 - M15 K10 - K25 N10 - N30 S01 - S20	◪ ■ ■ ■	▰▰▰▰	▰▰▰▱	▰▰▰▱	×		submicron H	+ +	Uncoated turning grade suitable for machining applications where oxidation resistance is not dominating criterion of tool life. Designed for machining of Ti-based alloys. Grade exhibits high strength of cutting edge together with good wear resistance.
TT310	P10 - P25 M15 - M25	■ ◪	▰▱▱▱	▰▱▱▱	▰▱▱▱	PVD		cermet	+ / –	Coated cermet used for fine and finish turning of carbon and alloy steels (including stainless). Its excellent friction properties are further improved by the coating applied using the PVD technique.
TT010	P01 - P10 M01 - M10	■ ◪	▰▱▱▱	▰▱▱▱	▰▱▱▱	×		cermet	+ / –	Uncoated cermet, which is suitable for fine machining of all types of steel (including stainless) at very low feed rates. Its main advantage is the minimal radius of the cutting edge and its high resistance to physical and chemical wear mechanisms.
TC100	K01 - K15	■	▰▰▱▱	▰▱▱▱	▰▱▱▱	×		ceramics	– -	Ceramic grade for cast iron machining. Suitable for machining with high cutting speed at stable conditions.
TB310	K01 - K10 S05 - S10 H01 - H10	■ ◪ ◪	▰▱▱▱	▰▱▱▱	▰▱▱▱	×		CBN	– -	CBN grade for machining of hardened materials. Suitable for machining with high cutting speed and small feeds at stable conditions.
PD1	N05 - N25	■	▰▱▱▱	▰▱▱▱	▰▱▱▱	×		PKD	-	PKD grade for turning non-ferrous materials. Ideal choice for working with high cutting speed and small feeds at stable conditions.
333TN	P45 - P50 M35 - M40 K35 - K40	■ ◪ ◪	▰▰▰▰	▰▱▱▱	▰▰▰▱	PVD		HSS	+ + +	Special grade composed of HSS substrate and thin hard PVD coating. The most tough cutting grade in the portfolio. Inserts with this grade are one and only used for slotting of key groove.

Substrat	
H	WC-Co based substrate
submicron H	WC-Co based substrate fine grained (< 1 µm)
ultra submicron H	WC-Co based substrate very fine grained (< 0,5 µm)
FGM	Functionally graded substrate
Cermet	Cemented carbide without WC
ceramics	Cutting ceramics
PCD	Polycrystalline Diamond
CBN	Cubic Boron Nitride
HSS	High speed steel

Coating	
MT-CVD	Medium-temperature chemical method of coating
PVD	Low-temperature physical method of coating
×	Uncoated grade

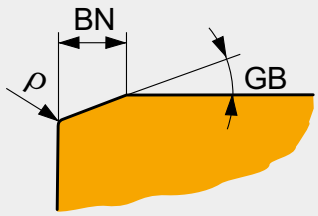
Benefits of cutting fluid	
+ + +	Use of coolant is essential
+ +	Highly recommended
+	Recommended
+ / –	Optional
– -	Do not use coolant

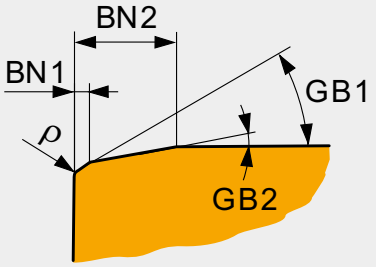
T01020 ⇒

Edge finishing

BN (BN2)

GB (BN1 × GB1 dependent on BN2 × GB2)

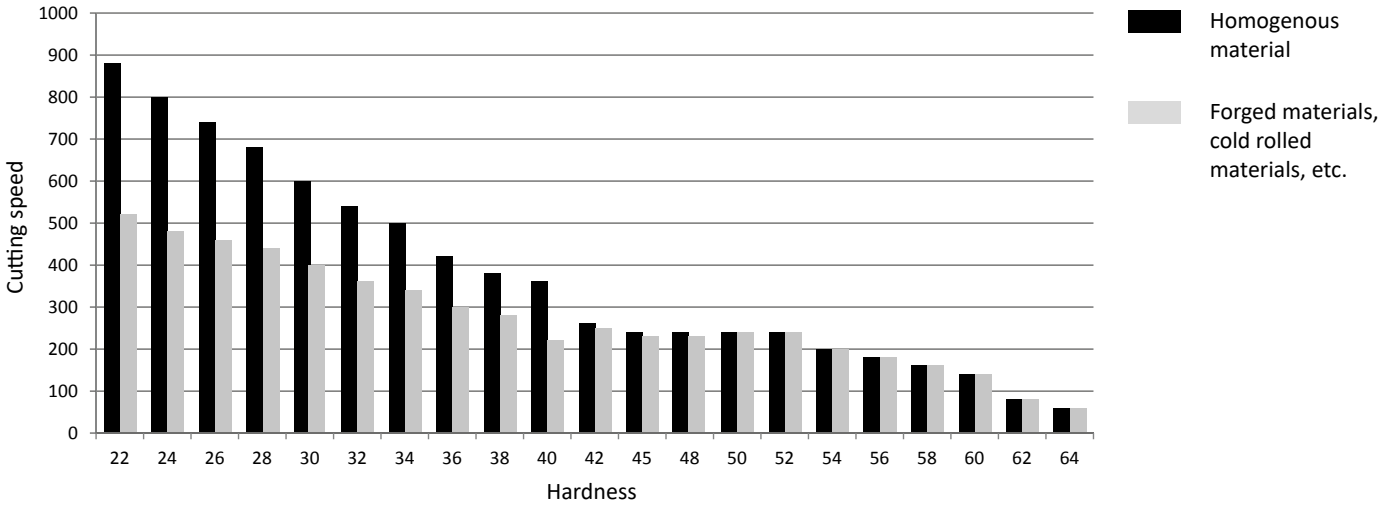




Example: **CNGA 120404 T02020** – insert CNGA 120404 with T-land (cutting edge design T) width 0,2 mm and angle -20°

Ceramics are materials that have one of the highest levels of thermal stability.
During their practical application, however, it is necessary to reduce the cutting speed with regard to the hardness of the machined material and its other characteristics.
For illustration purposes, we have provided a concrete example of a round insert used for finishing.

Cutting speed for RNGN (a_p = 1.5 mm)



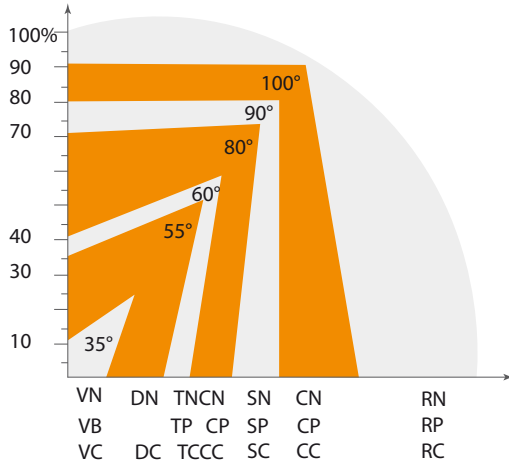
The following table provides further parameters that need to be taken into account when selecting the cutting speed to use.

Corner radius RE [mm]	**0,4**	**0,8**	**1,2**	**1,6**	**2,4**	**3**
Reduction v_c by	20 %	16 %	12 %	10 %	5 %	2 %
Main cutting edge angle	**90°**	**75°**	**60°**	**45°**	**30°**	**< 15°**
Reduction v_c by	0 %	5 %	8 %	12 %	15 %	18 %
Insert shape	**V**	**D**	**T**	**C, W**	**S**	**R**
Corner angle	35°	55°	60°	80°	90°	–
Reduction v_c by	17 %	12 %	10 %	6 %	4 %	0 %
Depth of cut a_p [mm]	**<1.4**	**3**	**6**	**10**	**13**	**20**
Reduction v_c by	5 %	8 %	13 %	16 %	18 %	20 %

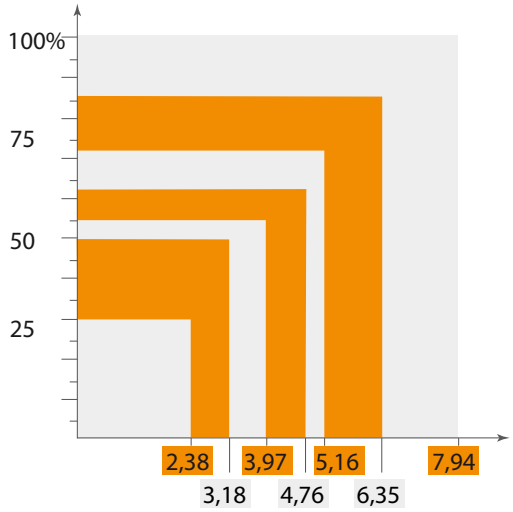
As previously stated, ceramics are materials that have one of the highest levels of abrasion resistance, yet they also have one of the lowest levels of strength.

With regard to rigidity, it is therefore also necessary to take into account other limiting criteria when selecting the right insert.

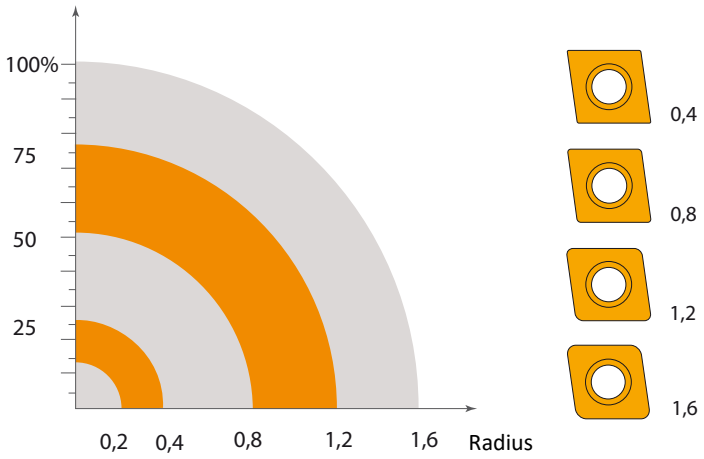
Rigidity in relation to insert shape



Rigidity in relation to insert thickness

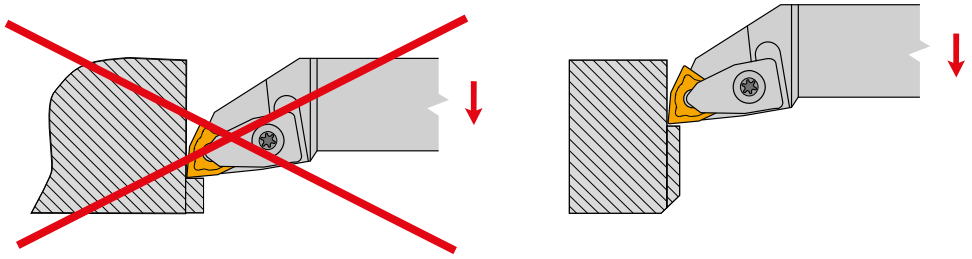


Rigidity in relation to insert radius

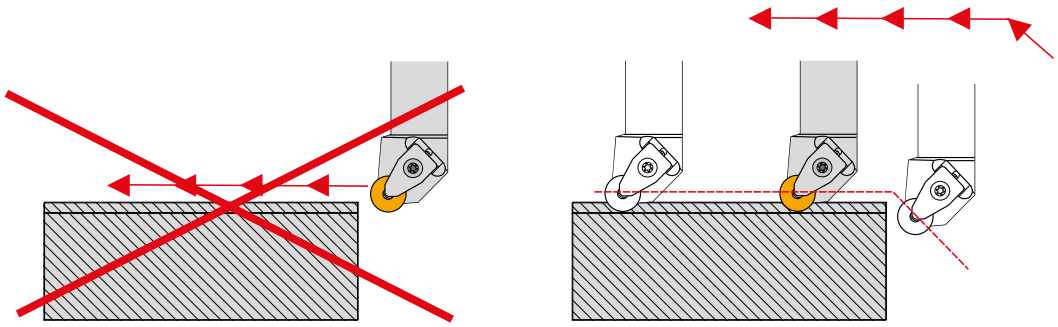


Finally, we would like to give some recommendations regarding practical application:

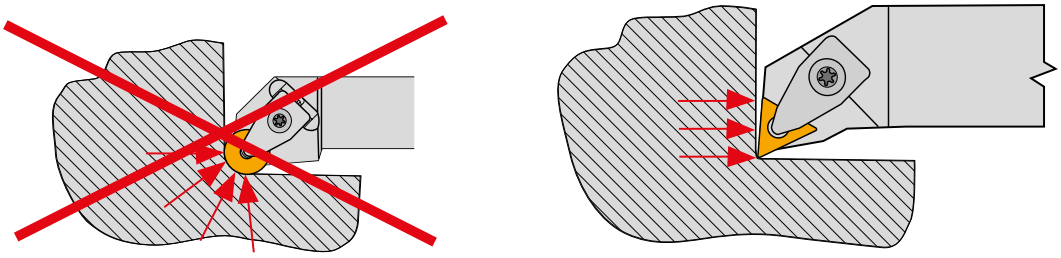
1) Burrs at the output of the tool can result in chipped edges and damage the whole insert. It is therefore necessary to bevel the edge to eliminate the burrs first.



2) It is advisable to modify the standard program (adding the material) as this slows down the creation of burrs on the edge, which increases the durability of the edge and also eliminates the need to bevel the edge.

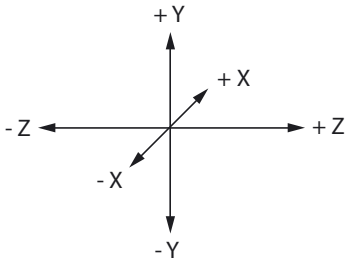


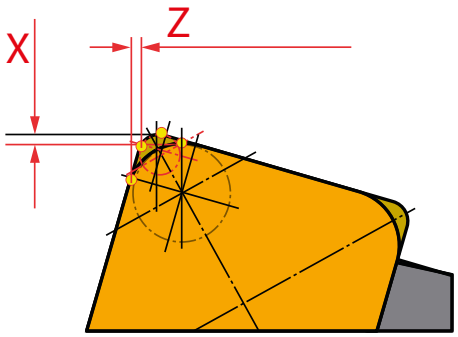
3) If there is a risk of problems occurring as a result of tool vibration, it is better to use inserts with a smaller radius to eliminate radial forces.

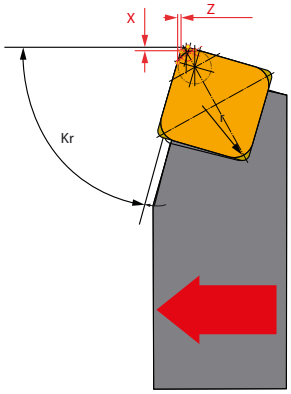


CORRECTION OF X AND Z COORDINATES BY RADIUS AND HOLDER

Correction of X and Z coordinates by radius and holder:







ATTENTION – the data is valid for right-hand holders oriented as shown in picture 19. For internal holders, left-hand holders or other orientations it is necessary to correct or mark +/– (to substitute values X/Z)

Holder		Coordinates	Radius 0,5	Radius 1,0	Radius 1,5				
External holder	CKJNR/L	x	0.443	0.000	-0.433				
		z	-0.050	0.000	0.050				

Holder		Coordinates	Radius 02	Radius 04	Radius 08	Radius 12	Radius 16	Radius 24	Radius 32
External holder	DCLNR/L	x	0.060	0.040	0.000	-0.040	-0.080	-0.160	-0.240
		z	-0.062	-0.042	0.000	0.042	0.083	0.166	0.249
	DDJNR/L	x	0.516	0.347	0.000	-0.329	-0.667	-1.343	-2.019
		z	-0.056	-0.041	0.000	0.022	0.054	0.117	0.180
	DSBNR/L	x	0.252	0.170	0.000	-0.158	-0.322	-0.649	-0.977
		z	0.422	0.280	0.000	-0.285	-0.568	-1.134	-1.700
	DSDNN	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	0.247	0.165	0.000	-0.165	-0.33	-0.659	-0.989
	DSKNR/L	x	0.134	0.089	0.000	-0.089	-0.178	-0.358	-0.537
		z	-0.167	-0.111	0.000	0.111	0.222	0.444	0.667
	DSSNR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	0.245	0.162	0.000	-0.167	-0.322	-0.662	-0.992
	DTFNR/L	x	0.426	0.284	0.000	-0.284	-0.569	-1.137	-1.705
		z	0.029	0.019	0.000	-0.019	-0.04	-0.078	-0.117
	DTGNR/L	x	0.437	0.294	0.000	-0.277	-0.562	-1.133	-1.703
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	DVJNR/L	x	0.063	0.042	0.000	-0.042	-0.084	-0.169	-0.253
		z	1.234	0.823	0.000	-0.823	-1.646	-3.291	-4.937
	DVPNR/L	x	0.79	0.527	0.000	-0.527	-1.054	-2.108	-3.161
		z	0.834	0.554	0.000	-0.554	-1.109	-2.217	-3.326
	DWLNR/L	x	0.061	0.044	0.000	-0.026	-0.061	-0.131	-0.200
		z	-0.063	-0.045	0.000	0.027	0.062	0.134	0.206

CORRECTION OF X AND Z COORDINATES BY RADIUS AND HOLDER

Holder		Coordinates	Radius 02	Radius 04	Radius 08	Radius 12	Radius 16	Radius 24	Radius 32
Internal holder	DCLNR/L	x	-0.053	-0.035	0.000	0.035	0.070	0.140	0.210
		z	-0.060	-0.040	0.000	0.040	0.080	0.159	0.239
	DDUNR/L	x	-0.512	-0.341	0.000	0.0341	0.683	1.365	2.047
		z	-0.073	-0.049	0.000	0.049	0.097	0.195	0.292
	DTFNR/L	x	-0.425	-0.289	0.000	0.254	0.526	1.069	1.613
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	DVUNR/L	x	1.254	-0.836	0.000	0.836	1.671	3.343	5.014
		z	-0.129	-0.086	0.000	0.086	0.172	0.344	0.516
	DWLNR/L	x	-0.053	-0.035	0.000	0.035	0.07	0.14	0.21
		z	-0.06	-0.04	0.000	0.04	0.08	0.159	0.239
External holder	MTJNR/L	x	0.437	0.294	0.000	-0.277	-0.562	-1.133	-1.703
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	MVJNR/L	x	1.263	0.847	0.000	-0.819	-1.651	-3.317	-4.982
		z	-0.075	-0.055	0.000	0.025	0.065	0.146	0.226
	MWLNR/L	x	0.609	0.044	0.000	-0.026	-0.061	-0.131	-0.200
		z	-0.063	-0.045	0.000	0.027	0.062	0.134	0.206
	PCBNR/L	x	0.045	0.033	0.000	-0.016	-0.040	-0.088	-0.137
		z	0.128	0.083	0.000	-0.096	-0.185	-0.364	-0.543
	PCKNR/L	x	0.171	0.115	0.000	-0.110	-0.223	-0.448	-0.672
		z	0.685	0.457	0.000	-0.457	-0.914	-1.827	-2.741
	PCLNR/L	x	0.061	0.044	0.000	-0.026	-0.061	-0.131	-0.200
		z	-0.063	-0.045	0.000	0.027	0.062	0.134	0.206
	PDJNR/L	x	0.516	0.347	0.000	-0.329	-0.667	-1.343	-2.019
		z	-0.056	-0.041	0.000	0.022	0.054	0.117	0.180
	PDNNR/L	x	0.699	0.469	0.000	-0.453	-0.915	-1.837	-2.759
		z	0.524	0.348	0.000	-0.357	-0.710	-1.415	-2.120
	PDXNR/L	x	0.453	0.305	0.000	-0.288	-0.584	-1.177	-1.770
		z	-0.156	-0.107	0.000	0.088	0.185	0.380	0.575
	PLBNR/L	x	0.137	0.094	0.000	-0.078	-0.163	-0.335	-0.507
		z	0.153	0.100	0.000	-0.110	-0.220	-0.433	-0.646
	PSBNR/L	x	0.137	0.094	0.000	-0.078	-0.163	-0.335	-0.507
		z	0.153	0.100	0.000	-0.110	-0.220	-0.433	-0.646
	PSDNN	x	0.252	0.170	0.000	-0.158	-0.322	-0.649	-0.977
		z	0.422	0.280	0.000	-0.285	-0.568	-1.134	-1.699
	PSKNR/L	x	0.140	0.094	0.000	-0.090	-0.152	-0.366	-0.550
		z	0.574	0.383	0.000	-0.384	-0.767	-1.533	-2.300
	PSSNR/L	x	0.246	0.164	0.000	-0.164	-0.328	-0.656	-0.983
		z	0.424	0.283	0.000	-0.283	-0.566	-1.131	-1.697
	PTFNR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	-0.411	-0.243	0.000	0.429	0.765	1.437	2.110
	PTGNR/L	x	0.437	0.294	0.000	-0.277	-0.562	-1.133	-1.703
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	PTTNR/L	x	0.601	0.403	0.000	-0.389	-0.784	-1.575	-2.367
		z	0.519	0.345	0.000	-0.354	-0.703	-1.401	-2.099
	PWLNR/L	x	0.609	0.044	0.000	-0.026	-0.061	-0.131	-0.200
		z	-0.063	-0.045	0.000	0.027	0.062	0.134	0.206
Internal holder	PCLNR/L	x	-0.061	-0.046	0.000	0.012	0.040	0.098	0.156
		z	-0.062	-0.047	0.000	0.015	0.046	0.160	0.169
	PDUNR/L	x	-0.500	-0.339	0.000	0.305	0.627	1.271	1.915
		z	-0.052	-0.040	0.000	0.006	0.029	0.076	0.122
	PSKNR/L	x	-0.153	-0.097	0.000	0.063	0.143	0.303	0.463
		z	0.137	0.098	0.000	-0.124	-0.234	-0.456	-0.677
	PTFNR/L	x	-0.425	-0.289	0.000	0.254	0.526	1.069	1.613
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	PWLNR/L	x	-0.060	-0.046	0.000	0.012	0.043	0.098	0.156
		z	-0.065	-0.049	0.000	0.012	0.040	0.105	0.166

CORRECTION OF X AND Z COORDINATES BY RADIUS AND HOLDER

Holder		Coordinates	Radius 02	Radius 04	Radius 08	Radius 12	Radius 16	Radius 24	Radius 32
External holder	SCACR/L	x	0.115	0.077	0.000	-0.077	-0.153	-0.307	-0.460
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SCBCR/L	x	0.042	0.028	0.000	-0.028	-0.055	-0.111	-0.166
		z	0.130	0.087	0.000	-0.087	-0.174	-0.347	-0.521
	SCDCR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	-0.279	-0.186	0.000	0.186	0.372	0.745	1.117
	SCFCR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	-0.124	-0.083	0.000	0.083	0.166	0.331	0.497
	SCLCR/L	x	0.060	0.040	0.000	-0.040	-0.080	-0.160	-0.240
		z	-0.062	-0.042	0.000	0.042	0.083	0.166	0.249
	SDJCR/L	x	0.520	0.346	0.000	-0.346	-0.693	-1.386	-2.078
		z	-0.060	-0.040	0.000	0.040	0.080	0.161	0.241
	SDNCN	x	0.699	0.466	0.000	-0.466	-0.933	-1.865	-2.798
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SEGCR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	-0.182	-0.121	0.000	0.121	0.243	0.485	0.728
	SSBCR/L	x	0.135	0.090	0.000	-0.090	-0.180	-0.360	-0.539
		z	0.155	0.104	0.000	-0.104	-0.207	-0.414	-0.621
	SSDCN	x	0.249	0.166	0.000	-0.166	-0.331	-0.663	-0.994
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SSKCR/L	x	-0.376	-0.517	0.000	-1.083	-1.366	-1.931	-2.497
		z	-0.135	-0.090	0.000	0.090	0.180	0.360	0.539
	STCFR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	–	–	0.000	–	–	–	–
	STJCR/L	x	0.406	0.271	0.000	-0.271	-0.542	-1.084	-1.626
		z	-0.054	-0.036	0.000	0.036	0.071	0.143	-0.214
	SVACR/L	x	00 / 0	01 / – 0.107	–	–	–	–	–
		z	00 / 0	01 / – 0.107	–	–	–	–	–
	SVGCR/L	x	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		z	-1.303	-0.869	0.000	0.869	1.737	3.475	5.212
	SVHBR/L	x	1.034	0.690	0.000	-0.690	-1.379	-2.759	-4.138
		z	-0.544	-0.363	0.000	0.363	0.726	1.452	2.178
	SVHCR/L	x	1.034	0.690	0.000	-0.690	-1.379	-2.759	-4.138
		z	-0.544	-0.363	0.000	0.363	0.726	1.452	2.178
	SVJBR/L	x	1.269	0.846	0.000	-0.846	-1.692	-3.384	-5.076
		z	-0.099	-0.066	0.000	0.066	0.132	0.263	0.395
	SVJCR/L	x	1.269	0.846	0.000	-0.846	-1.692	-3.384	-5.076
		z	-0.099	-0.066	0.000	0.066	0.132	0.263	0.395
	SVPBR/L	x	0.811	0.541	0.000	-0.541	-1.081	-2.162	-3.244
		z	-0.811	-0.541	0.000	0.541	1.081	2.162	3.244
	SVPCR/L	x	0.811	0.541	0.000	-0.541	-1.081	-2.162	-3.244
		z	-0.811	-0.541	0.000	0.541	1.081	2.162	3.244
	SVVBN	x	1.395	0.930	0.000	-0.930	-1.860	-3.721	-5.581
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SVVCN	x	1.395	0.930	0.000	-0.930	-1.860	-3.721	-5.581
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SVXBR/L	x	1.201	0.801	0.000	-0.080	-1.601	-3.202	-4.804
		z	-0.259	-0.173	0.000	0.173	0.345	0.691	1.036
	SVXCR/L	x	1.201	0.801	0.000	-0.080	-1.601	-3.202	-4.804
		z	-0.259	-0.173	0.000	0.173	0.345	0.691	1.036
	SWLCR/L	x	0.060	0.040	0.000	-0.040	-0.080	-0.160	-0.240
		z	-0.060	-0.040	0.000	0.040	0.080	0.160	0.240

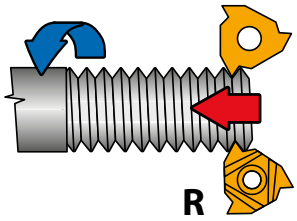
CORRECTION OF X AND Z COORDINATES BY RADIUS AND HOLDER

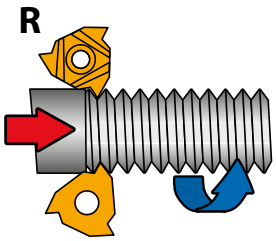
Holder		Coordinates	Radius 02	Radius 04	Radius 08	Radius 12	Radius 16	Radius 24	Radius 32
Internal holder	SCFCR/L	x	-0.420	-0.280	0.000	0.280	0.560	1.121	1.681
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SCKCR/L	x	-0.040	-0.027	0.000	0.027	0.054	0.108	0.161
		z	0.130	0.087	0.000	-0.087	-0.174	-0.348	0.521
	SCLCR/L	x	-0.058	-0.039	0.000	0.039	0.078	0.155	0.233
		z	-0.062	-0.042	0.000	0.042	0.083	0.166	0.249
	SCXCR/L	x	-0.178	-0.119	0.000	0.119	0.237	0.474	0.711
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SDQCR/L	x	-0.309	-0.194	0.000	0.206	0.412	0.825	1.237
		z	-0.310	-0.206	0.000	0.268	0.499	0.961	1.423
	SDUCR/L	x	-0.504	-0.336	0.000	0.336	0.672	1.344	2.016
		z	-0.059	-0.039	0.000	0.041	0.082	0.162	0.242
	SDZCR/L	x	-0.520	-0.346	0.000	0.346	0.693	0.139	2.078
		z	0.059	0.039	0.000	-0.041	-0.082	-0.162	-0.242
	SELPR/L	x	-0.126	-0.084	0.000	0.084	0.168	0.337	0.051
		z	-0.066	-0.044	0.000	0.044	0.088	0.176	0.264
	SEUCR/L	x	-0.149	-0.099	0.000	0.099	0.199	0.397	0.596
		z	-0.041	-0.027	0.000	0.027	0.053	0.107	0.160
	SEUPR/L	x	-0.148	-0.099	0.000	0.099	0.198	0.396	0.593
		z	-0.040	-0.027	0.000	0.027	0.053	0.107	0.160
	SEXPR/L	x	-0.384	-0.256	0.000	0.256	0.512	1.024	1.537
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SSSCR/L	x	-0.249	-0.166	0.000	0.166	0.331	0.663	0.994
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	STFCR/L	x	-0.433	-0.289	0.000	0.289	0.577	1.154	1.731
		z	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SVLCR/L	x	-1.243	-0.828	0.000	0.828	1.657	3.314	4.971
		z	0.239	0.692	0.000	-0.108	-0.215	-0.430	-0.645
	SVQBR/L	x	-1.027	-0.684	0.000	0.690	1.369	2.738	4.106
		z	-0.545	-0.363	0.000	0.363	0.726	1.452	2.178
	SVQCR/L	x	-1.027	-0.684	0.000	0.690	1.369	2.738	4.106
		z	-0.545	-0.363	0.000	0.363	0.726	1.452	2.178
	SVUBR/L	x	-1.259	-0.840	0.000	0.840	1.679	3.358	5.037
		z	0.099	-0.066	0.000	0.066	0.132	0.263	0.395
	SVUCR/L	x	-1.259	-0.840	0.000	0.840	1.679	3.358	5.037
		z	0.099	-0.066	0.000	0.066	0.132	0.263	0.395
	SVXCR/L	x	-0.917	-0.611	0.000	0.611	1.222	2.445	3.667
		z	-0.696	-0.464	0.000	0.464	0.928	1.856	2.783
	SWLCR/L	x	-0.060	-0.039	0.000	0.039	0.079	0.158	0.237
		z	-0.060	-0.040	0.000	0.040	0.080	0.160	0.240
	SWUCR/L	x	-0.080	-0.053	0.000	0.053	0.107	0.213	0.319
		z	-0.034	-0.024	0.000	0.024	0.049	0.098	0.146

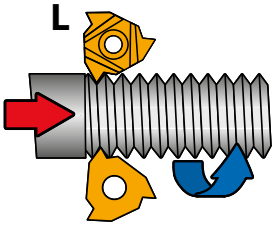
ATTENTION – the data is valid for right-hand holders oriented as shown in picture 19. For internal holders, left-hand holders or other orientations it is necessary to correct or mark +/– (to substitute values X/Z).

The choice of production method is influenced by the workpiece and the machine. Workpiece – external or internal thread, right – or left-hand thread. Machine – right – or left-hand tool. For guidance, you can use table below.

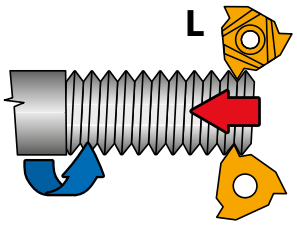
EXTERNAL THREAD, RIGHT-HAND

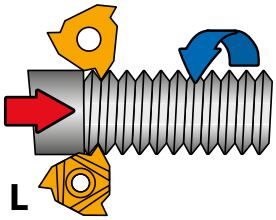


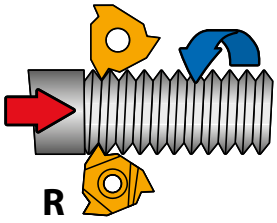




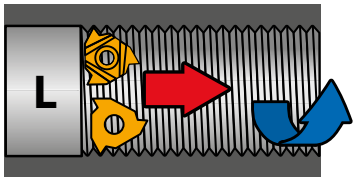
EXTERNAL THREAD, LEFT-HAND

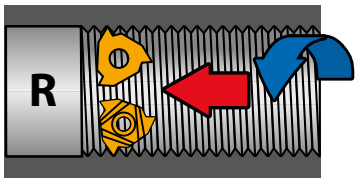




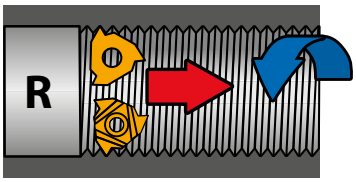


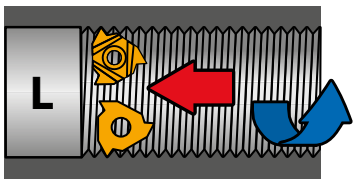
INTERNAL THREAD, RIGHT-HAND





INTERNAL THREAD, LEFT-HAND





Movement of the workpiece

Tool movement

L / R Insert design

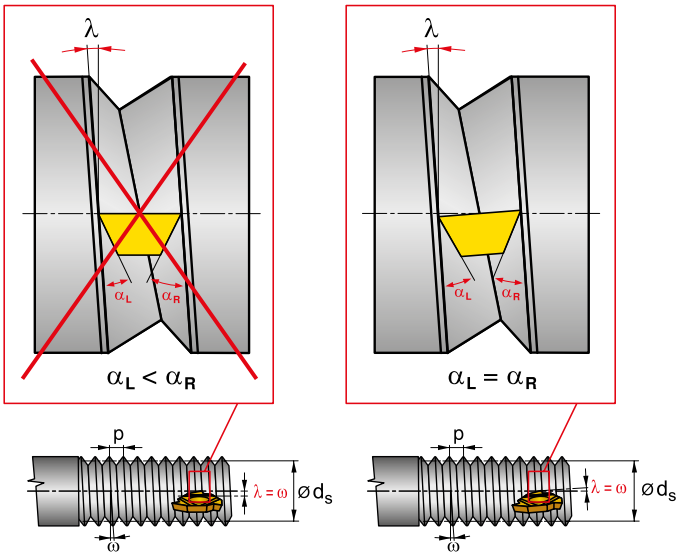
The following formula can be used to calculate the helix angle:

$$tg\,\omega = \frac{p}{d_s \cdot \pi}$$

ω helix angle [°]

p pitch [mm]

d_s pitch diameter [mm]



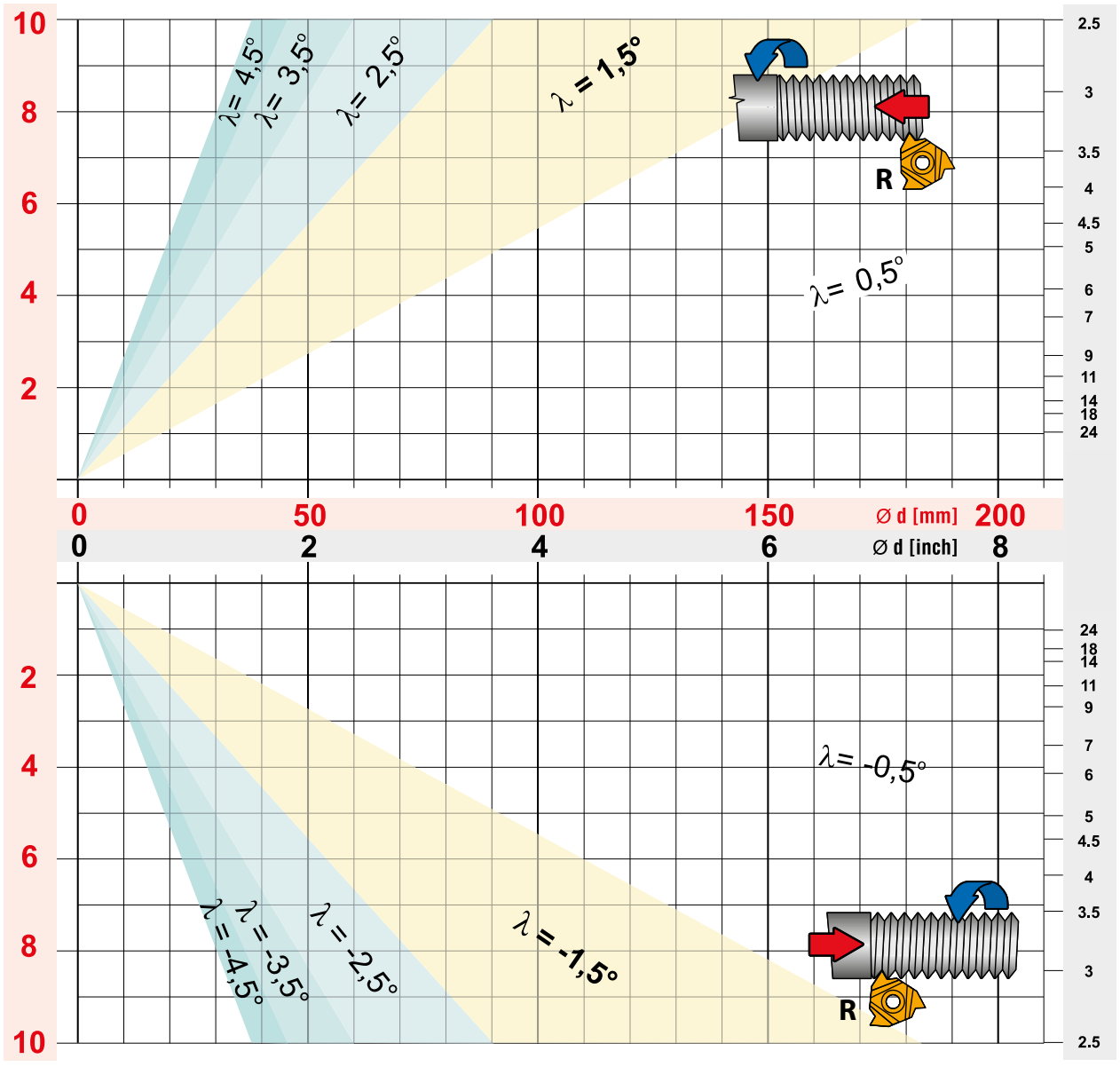
To generate the correct shape on the thread and uniform wear on the insert, the cutting edge helix angle should be equal to the thread lead angle.
Tool holders are usually supplied with a helix angle λ = 1.5°. A different helix angle can be selected by changing the anvil.
Use the following graph (picture 21) or table (table 16) to choose the correct anvil.

Choice of shim

Helix angle λ	Positive					Negative		for grooving inserts TN16.. ... ZZ, TN22.. ... ZZ
	4,5°	3,5°	2,5°	1,5°	0,5°	-0,5°	-1,5°	
Tool holder	**Anvil specification**							
SER .... .16; SIL .... .16	PE16+4,5	PE16+3,5	PE16+2,5	**PE16+1,5**	PE16+0,5	PE16-0,5	PE16-1,5	PE16ZZ
SEL .... .16; SIR .... .16	PI16+4,5	PI16+3,5	PI16+2,5	**PI16+1,5**	PI16+0,5	PI16-0,5	PI16-1,5	PI16ZZ
SER .... .22; SIL .... .22	PE22+4,5	PE22+3,5	PE22+2,5	**PE22+1,5**	PE22+0,5	PE22-0,5	PE22-1,5	PE22ZZ
SEL .... .22; SIR .... .22	PI22+4,5	PI22+3,5	PI22+2,5	**PI22+1,5**	PI22+0,5	PI22-0,5	PI22-1,5	PI22ZZ
SER-S .... .22; SIL-S .... .22	PE22S+4,5	PE22S+3,5	PE22S+2,5	**PE22S+1,5**	PE22S+0,5	PE22S-0,5	PE22S-1,5	-
SEL-S .... .22; SIR-S .... .22	PI22S+4,5	PI22S+3,5	PI22S+2,5	**PI22S+1,5**	PI22S+0,5	PI22S-0,5	PI22S-1,5	-

Tool holders are usually supplied with a helix angle λ = 1.5°. A different helix angle can be selected by changing the anvil.
Shims for holders SER-S ...., SIR-S .... are marked with „*S*“

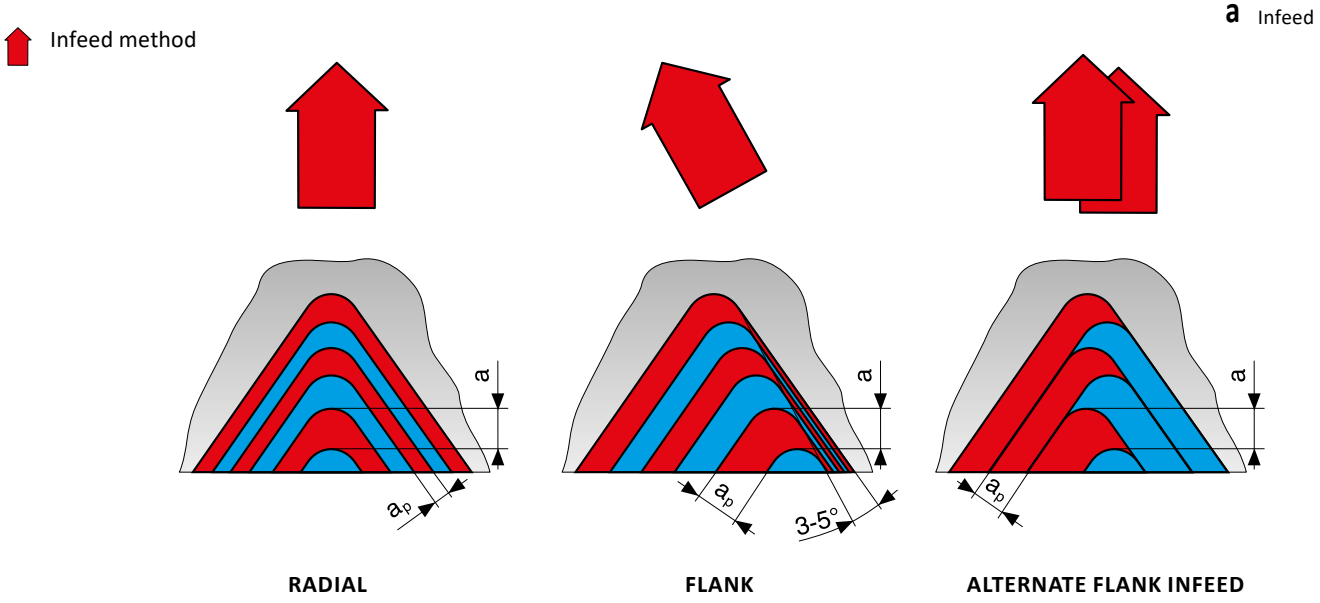
Graph for shim selection



Movement of the workpiece Tool movement **L / R** Insert design

Infeed method and depth

The choice of infeed method is most important for long chipping materials to ensure γοοδ chip control.



The choice depends on the machine type, the machined material and the pitch.

Radial infeed – the most simple and the most used. The infeed is perpendicular to the axis of rotation of the workpiece. It contributes to good chip formation and uniform wear on the cutting edge. Suitable for threads with a small pitch (p <1.5 mm). There is a risk of vibration at higher feeds. First choice for working on hard materials (e.g. austenitic stainless steels, steels with low carbon content).

Flank infeed – reduces thermal stress on the cutting edge and thereby wear. Good chip control. Suitable for threads with a pitch of p >1.5 mm for TR threads. Flank infeed with deviation 3 – 5° eliminates friction on the thread flank.

Alternate flank infeed – recommended for coarse threads and materials with poor chip formation. Long tool life. For CNC machines, higher demand on CNC programming.

Infeed method and number of passes depend on the thread pitch. The tables give basic recommendations and apply to all geometries. If the insert fractures, the infeed value should be decreased and the number of passes should be increased. The infeed depth should not be less than 0.05 mm/pass. On austenitic and soft steels the infeed depth per pass should be greater than 0.08 mm.

TUBULAR CYLINDRICAL THREAD PROFILE CORRESPONDS WITH W (WHITWORTH 55°)					
Thread marking	**No. of threads / 1″**	**Thread pitch P [mm]**	**Nominal diameter of thread [mm]**	**Small diameter of thread [mm]**	**Thread insert marking**
G 1/16″	28	0,907	7.723	6.561	**TN xxxx280W**
G 1/8″			9.728	8.566	
G 1/4″	19	1,337	13.157	11.445	**TN xxxx190W**
G 3/8″			16.662	14.950	
G 1/2″	14	1,814	20.955	18.631	**TN xxxx140W**
G 5/8″			22.911	20.587	
G 3/4″			26.441	24.117	
G 7/8″			30.201	27.877	
G 1″	11	2,309	33.249	30.291	**TN xxxx110W**
G1 1/8″			37.897	34.939	
G1 1/4″			41.910	38.952	
G1 1/2″			47.803	44.845	
G1 3/4″			53.746	50.788	
G 2″			59.614	56.656	
G2 1/4″			65.710	62.752	
G2 1/2″			75.184	72.226	
G2 3/4″			81.534	78.576	
G3″			87.884	84.926	
G3 1/2″			100.330	97.372	
G4″			113.030	110.072	
G4 1/2″			125.730	122.772	
G5″			138.430	135.472	
G5 1/2″			151.130	148.172	
G6″			163.830	160.872	

Example: for right-hand external thread on 1 ½″ tube use thread insert TN 16ER110W; 8030

INFEED DEPTH

M – metric 60° – external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH														
	Pitch [mm]														
	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.75	0.50
1	0.46	0.43	0.41	0.37	0.34	0.34	0.28	0.27	0.24	0.22	0.22	0.21	0.18	0.16	0.11
2	0.43	0.40	0.39	0.34	0.32	0.31	0.26	0.24	0.22	0.20	0.20	0.17	0.16	0.14	0.09
3	0.35	0.32	0.32	0.28	0.25	0.25	0.21	0.20	0.18	0.17	0.17	0.14	0.12	0.11	0.07
4	0.30	0.28	0.27	0.24	0.22	0.21	0.18	0.17	0.16	0.14	0.14	0.11	0.11	0.07	0.06
5	0.29	0.26	0.24	0.22	0.20	0.18	0.16	0.15	0.14	0.12	0.12	0.10	0.08		
6	0.26	0.24	0.24	0.22	0.18	0.18	0.15	0.15	0.12	0.10	0.08	0.08			
7	0.24	0.21	0.22	0.20	0.17	0.16	0.14	0.12	0.11	0.10					
8	0.23	0.20	0.20	0.18	0.15	0.15	0.13	0.11	0.08	0.08					
9	0.22	0.19	0.19	0.17	0.14	0.14	0.12	0.11							
10	0.19	0.18	0.18	0.16	0.13	0.12	0.11	0.08							
11	0.18	0.17	0.16	0.14	0.12	0.11	0.10								
12	0.16	0.15	0.15	0.13	0.12	0.08	0.08								
13	0.15	0.14	0.12	0.12	0.11										
14	0.13	0.13	0.10	0.10	0.08										
15	0.13	0.12													
16	0.10	0.10													
Total infeed depth	**3.83**	**3.52**	**3.19**	**2.87**	**2.53**	**2.23**	**1.92**	**1.60**	**1.25**	**1.13**	**0.93**	**0.81**	**0.65**	**0.48**	**0.33**

M – Metric 60° – internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH														
	Pitch [mm]														
	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.75	0.50
1	0.46	0.43	0.42	0.37	0.34	0.32	0.28	0.26	0.23	0.22	0.20	0.17	0.17	0.16	0.10
2	0.43	0.40	0.40	0.34	0.31	0.30	0.26	0.25	0.21	0.20	0.18	0.17	0.15	0.13	0.08
3	0.35	0.33	0.32	0.28	0.24	0.24	0.21	0.18	0.17	0.15	0.15	0.14	0.11	0.10	0.07
4	0.30	0.26	0.26	0.23	0.21	0.19	0.16	0.15	0.15	0.13	0.13	0.10	0.09	0.07	0.06
5	0.26	0.22	0.22	0.21	0.18	0.17	0.14	0.13	0.12	0.10	0.11	0.09	0.08		
6	0.22	0.20	0.20	0.19	0.15	0.15	0.13	0.12	0.11	0.09	0.08	0.08			
7	0.20	0.18	0.17	0.16	0.14	0.14	0.12	0.11	0.10	0.08					
8	0.19	0.17	0.16	0.15	0.13	0.13	0.11	0.10	0.08	0.08					
9	0.18	0.16	0.16	0.14	0.12	0.12	0.10	0.10							
10	0.16	0.15	0.15	0.13	0.12	0.11	0.10	0.08							
11	0.15	0.14	0.14	0.12	0.11	0.10	0.09								
12	0.15	0.14	0.14	0.12	0.10	0.08	0.08								
13	0.14	0.13	0.12	0.11	0.10										
14	0.13	0.12	0.10	0.10	0.08										
15	0.12	0.12													
16	0.10	0.10													
Total infeed depth	**3.54**	**3.25**	**2.96**	**2.65**	**2.33**	**2.05**	**1.78**	**1.48**	**1.17**	**1.05**	**0.85**	**0.75**	**0.60**	**0.46**	**0.31**

W – Whitworth 55° – external and internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH																
	Pitch [no of thread/inch]																
	4	4.5	5	6	7	8	9	10	11	12	14	16	18	19	20	26	28
1	0.49	0.46	0.45	0.38	0.37	0.32	0.30	0.29	0.28	0.28	0.24	0.24	0.23	0.22	0.21	0.19	0.18
2	0.46	0.43	0.43	0.36	0.35	0.30	0.28	0.27	0.26	0.26	0.22	0.22	0.22	0.22	0.21	0.18	0.17
3	0.38	0.38	0.38	0.30	0.29	0.24	0.23	0.22	0.22	0.22	0.18	0.19	0.19	0.18	0.17	0.15	0.14
4	0.36	0.33	0.32	0.26	0.25	0.21	0.20	0.19	0.19	0.18	0.15	0.16	0.16	0.14	0.14	0.12	0.12
5	0.34	0.29	0.28	0.22	0.22	0.19	0.18	0.17	0.16	0.16	0.13	0.13	0.13	0.12	0.11	0.08	0.08
6	0.31	0.25	0.25	0.21	0.19	0.17	0.15	0.15	0.14	0.14	0.11	0.11	0.08	0.08	0.08		
7	0.29	0.24	0.22	0.19	0.18	0.15	0.14	0.14	0.13	0.13	0.09	0.08					
8	0.27	0.22	0.20	0.17	0.16	0.14	0.13	0.13	0.12	0.08	0.08						
9	0.24	0.20	0.19	0.16	0.15	0.13	0.12	0.12	0.08								
10	0.22	0.18	0.18	0.15	0.14	0.12	0.12	0.08									
11	0.20	0.17	0.17	0.14	0.12	0.12	0.08										
12	0.19	0.16	0.15	0.14	0.08	0.08											
13	0.17	0.15	0.12	0.12													
14	0.15	0.14	0.10	0.10													
15	0.12	0.12															
16	0.10	0.10															
Total infeed depth	4.29	3.82	3.44	2.90	2.50	2.17	1.93	1.76	1.58	1.45	1.20	1.13	1.01	0.96	0.92	0.72	0.69

UN – UN 60° – external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH																	
	Pitch [no of thread/inch]																	
	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
1	0.47	0.45	0.43	0.36	0.35	0.30	0.28	0.27	0.27	0.27	0.25	0.23	0.22	0.23	0.20	0.19	0.17	0.17
2	0.44	0.41	0.40	0.34	0.33	0.28	0.26	0.26	0.25	0.26	0.24	0.22	0.21	0.21	0.19	0.17	0.15	0.15
3	0.40	0.39	0.36	0.27	0.26	0.25	0.21	0.20	0.20	0.20	0.18	0.17	0.16	0.16	0.15	0.14	0.11	0.13
4	0.36	0.31	0.31	0.23	0.22	0.21	0.20	0.17	0.19	0.18	0.17	0.15	0.14	0.14	0.12	0.12	0.09	0.08
5	0.32	0.26	0.26	0.22	0.21	0.18	0.17	0.16	0.16	0.15	0.14	0.13	0.13	0.12	0.10	0.08	0.08	
6	0.27	0.23	0.23	0.20	0.19	0.16	0.15	0.15	0.14	0.13	0.12	0.11	0.11	0.08	0.08			
7	0.25	0.21	0.20	0.18	0.17	0.14	0.14	0.14	0.12	0.12	0.11	0.10	0.08					
8	0.23	0.20	0.19	0.16	0.15	0.13	0.12	0.12	0.11	0.08	0.08	0.08						
9	0.22	0.18	0.19	0.15	0.14	0.12	0.12	0.11	0.08									
10	0.21	0.17	0.18	0.14	0.12	0.12	0.11	0.08										
11	0.19	0.16	0.17	0.13	0.11	0.11	0.08											
12	0.18	0.15	0.15	0.12	0.08	0.08												
13	0.16	0.14	0.12	0.11														
14	0.15	0.14	0.10	0.10														
15	0.12	0.12																
16	0.10	0.10																
Total infeed depth	**4.07**	**3.62**	**3.29**	**2.71**	**2.33**	**2.08**	**1.84**	**1.66**	**1.52**	**1.39**	**1.29**	**1.19**	**1.05**	**0.94**	**0.84**	**0.70**	**0.60**	**0.53**

UN – UN 60° – internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH																	
	Pitch [no of thread/inch]																	
	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
1	0.44	0.41	0.42	0.35	0.34	0.30	0.28	0.27	0.27	0.27	0.25	0.23	0.22	0.23	0.20	0.18	0.17	0.17
2	0.41	0.38	0.38	0.33	0.32	0.28	0.26	0.25	0.23	0.23	0.20	0.18	0.18	0.17	0.16	0.15	0.14	0.14
3	0.39	0.34	0.33	0.25	0.24	0.22	0.19	0.18	0.18	0.18	0.15	0.14	0.14	0.14	0.13	0.13	0.09	0.10
4	0.33	0.28	0.27	0.21	0.21	0.18	0.16	0.15	0.15	0.15	0.13	0.13	0.12	0.12	0.10	0.10	0.08	0.08
5	0.28	0.23	0.23	0.18	0.17	0.15	0.14	0.13	0.13	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	
6	0.24	0.20	0.20	0.16	0.15	0.13	0.13	0.12	0.11	0.11	0.11	0.10	0.09	0.08	0.08			
7	0.22	0.19	0.18	0.15	0.14	0.12	0.12	0.11	0.11	0.10	0.10	0.09	0.08					
8	0.21	0.18	0.17	0.14	0.13	0.11	0.11	0.10	0.10	0.08	0.08	0.08						
9	0.20	0.17	0.16	0.13	0.12	0.11	0.10	0.10	0.08									
10	0.18	0.16	0.15	0.12	0.12	0.10	0.09	0.08										
11	0.17	0.15	0.14	0.12	0.11	0.10	0.08											
12	0.16	0.14	0.14	0.11	0.08	0.08												
13	0.15	0.14	0.12	0.11														
14	0.14	0.13	0.10	0.10														
15	0.12	0.12																
16	0.10	0.10																
Total infeed depth	**3.74**	**3.32**	**2.99**	**2.46**	**2.13**	**1.88**	**1.66**	**1.49**	**1.36**	**1.25**	**1.14**	**1.06**	**0.93**	**0.84**	**0.76**	**0.64**	**0.56**	**0.49**

NPT 60° – internal and external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH				
	Pitch [no of thread/inch]				
	8	11.5	14	18	27
1	0.28	0.25	0.24	0.22	0.19
2	0.25	0.22	0.22	0.18	0.15
3	0.22	0.18	0.17	0.15	0.13
4	0.19	0.16	0.15	0.14	0.11
5	0.18	0.16	0.14	0.13	0.09
6	0.18	0.14	0.13	0.12	0.08
7	0.17	0.14	0.12	0.10	
8	0.17	0.12	0.10	0.08	
9	0.16	0.12	0.10		
10	0.16	0.10	0.08		
11	0.14	0.09			
12	0.13	0.08			
13	0.12				
14	0.11				
15	0.08				
Total infeed depth	**2.54**	**1.76**	**1.45**	**1.12**	**0.75**

RD – RD 30° – external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH			
	Pitch [no of thread/inch]			
	4	6	8	10
1	0.44	0.33	0.29	0.26
2	0.40	0.29	0.26	0.25
3	0.34	0.25	0.21	0.23
4	0.32	0.23	0.19	0.20
5	0.28	0.20	0.18	0.16
6	0.26	0.18	0.16	0.12
7	0.24	0.16	0.14	0.10
8	0.22	0.15	0.12	0.08
9	0.20	0.14	0.10	
10	0.19	0.12	0.08	
11	0.17	0.10		
12	0.15	0.08		
13	0.12			
14	0.10			
Total infeed depth	**3.43**	**2.23**	**1.73**	**1.40**

RD – RD 30° – internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH			
	Pitch [no of thread/inch]			
	4	6	8	10
1	0.46	0.38	0.26	0.27
2	0.43	0.34	0.22	0.26
3	0.40	0.30	0.21	0.25
4	0.35	0.25	0.19	0.22
5	0.30	0.21	0.18	0.18
6	0.26	0.19	0.16	0.13
7	0.24	0.17	0.14	0.10
8	0.22	0.16	0.12	0.08
9	0.20	0.14	0.10	
10	0.19	0.12	0.08	
11	0.17	0.10		
12	0.15	0.08		
13	0.12			
14	0.10			
Total infeed depth	**3.59**	**2.44**	**1.66**	**1.49**

INFEED DEPTH

TR 30° internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH											
	Pitch [mm]											
	14,0	12,0	10,0	9,0	8,0	7,0	6,0	5,0	4,0	3,0	2,0	1,5
1	0.40	0.38	0.38	0.38	0.37	0.37	0.37	0.34	0.31	0.27	0.25	0.23
2	0.37	0.36	0.36	0.35	0.35	0.34	0.35	0.33	0.28	0.25	0.24	0.22
3	0.36	0.34	0.34	0.34	0.34	0.33	0.32	0.27	0.24	0.21	0.20	0.18
4	0.36	0.34	0.34	0.33	0.33	0.31	0.29	0.25	0.20	0.17	0.17	0.14
5	0.35	0.32	0.32	0.31	0.31	0.29	0.27	0.23	0.19	0.15	0.14	0.12
6	0.35	0.32	0.32	0.30	0.29	0.26	0.25	0.21	0.18	0.13	0.13	0.08
7	0.34	0.30	0.31	0.29	0.28	0.26	0.23	0.20	0.16	0.13	0.11	
8	0.34	0.30	0.29	0.28	0.27	0.26	0.22	0.20	0.15	0.12	0.09	
9	0.34	0.30	0.28	0.26	0.25	0.24	0.22	0.18	0.15	0.12		
10	0.33	0.29	0.27	0.25	0.24	0.23	0.20	0.16	0.15	0.10		
11	0.33	0.29	0.25	0.24	0.23	0.22	0.18	0.15	0.14	0.10		
12	0.32	0.29	0.24	0.23	0.21	0.22	0.17	0.14	0.13	0.08		
13	0.32	0.28	0.23	0.22	0.20	0.20	0.17	0.13	0.10			
14	0.31	0.27	0.22	0.21	0.19	0.19	0.16	0.10				
15	0.31	0.25	0.22	0.21	0.19	0.17	0.14					
16	0.30	0.25	0.20	0.19	0.18	0.16	0.12					
17	0.30	0.24	0.19	0.18	0.17	0.12						
18	0.29	0.22	0.18	0.16	0.15							
19	0.28	0.20	0.17	0.15	0.13							
20	0.27	0.20	0.16	0.15								
21	0.23	0.19	0.15	0.13								
22	0.23	0.18	0.15									
23	0.21	0.17	0.13									
24	0.19	0.16										
25	0.17	0.15										
26	0.16	0.13										
27	0.16											
28	0.15											
29	0.13											
Total infeed depth	**8.2**	**6.72**	**5.7**	**5.16**	**4.68**	**4.17**	**3.66**	**2.89**	**2.38**	**1.83**	**1.33**	**0.97**

TR – TR 30° – internal

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH											
	Pitch [mm]											
	14,0	12,0	10,0	9,0	8,0	7,0	6,0	5,0	4,0	3,0	2,0	1,5
1	0.40	0.38	0.38	0.38	0.37	0.37	0.37	0.34	0.31	0.27	0.25	0.23
2	0.37	0.36	0.36	0.35	0.35	0.34	0.34	0.33	0.28	0.25	0.24	0.22
3	0.36	0.34	0.34	0.34	0.34	0.33	0.32	0.27	0.24	0.22	0.21	0.19
4	0.36	0.34	0.34	0.33	0.33	0.31	0.29	0.25	0.20	0.17	0.17	0.14
5	0.35	0.32	0.32	0.31	0.31	0.29	0.27	0.23	0.19	0.15	0.14	0.12
6	0.35	0.32	0.32	0.31	0.29	0.26	0.25	0.21	0.18	0.14	0.13	0.08
7	0.34	0.30	0.31	0.29	0.28	0.26	0.23	0.20	0.16	0.13	0.11	
8	0.34	0.30	0.29	0.29	0.27	0.26	0.22	0.20	0.15	0.12	0.09	
9	0.34	0.30	0.28	0.26	0.25	0.24	0.22	0.18	0.15	0.12		
10	0.33	0.29	0.27	0.25	0.24	0.23	0.20	0.16	0.15	0.10		
11	0.33	0.29	0.25	0.24	0.23	0.22	0.18	0.15	0.14	0.10		
12	0.32	0.28	0.24	0.23	0.21	0.22	0.17	0.14	0.13	0.08		
13	0.32	0.28	0.23	0.22	0.20	0.20	0.17	0.13	0.10			
14	0.31	0.27	0.22	0.21	0.19	0.19	0.16	0.10				
15	0.31	0.25	0.22	0.21	0.19	0.17	0.14					
16	0.30	0.25	0.20	0.20	0.18	0.16	0.12					
17	0.30	0.24	0.19	0.18	0.17	0.12						
18	0.29	0.22	0.18	0.16	0.15							
19	0.28	0.20	0.17	0.15	0.13							
20	0.27	0.20	0.16	0.15								
21	0.27	0.19	0.15	0.13								
22	0.23	0.18	0.15									
23	0.23	0.17	0.13									
24	0.21	0.16										
25	0.19	0.15										
26	0.17	0.13										
27	0.16											
28	0.16											
29	0.15											
30	0.13											
Total infeed depth	**8.47**	**6.71**	**5.7**	**5.19**	**4.68**	**4.17**	**3.65**	**2.89**	**2.38**	**1.85**	**1.34**	**0.98**

BSPT 55° – internal and external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH			
	Pitch [no of thread/inch]			
	11	14	19	28
1	0.22	0.19	0.19	0.15
2	0.21	0.18	0.18	0.14
3	0.20	0.17	0.17	0.13
4	0.19	0.16	0.15	0.12
5	0.18	0.15	0.13	0.08
6	0.16	0.14	0.08	
7	0.15	0.12		
8	0.13	0.08		
9	0.08			
Total infeed depth	**1.52**	**1.19**	**0.90**	**0.62**

ACME – ACME 29° – external

Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH							
	Pitch [no of thread/inch]							
	4	5	6	8	10	12	14	16
1	0.37	0.34	0.32	0.29	0.27	0.25	0.22	0.23
2	0.34	0.32	0.28	0.25	0.23	0.22	0.20	0.21
3	0.30	0.25	0.23	0.21	0.20	0.17	0.18	0.18
4	0.27	0.23	0.21	0.17	0.18	0.14	0.15	0.14
5	0.25	0.22	0.18	0.15	0.14	0.13	0.13	0.12
6	0.24	0.20	0.18	0.13	0.12	0.12	0.11	0.08
7	0.21	0.19	0.16	0.13	0.12	0.10	0.08	
8	0.20	0.19	0.16	0.12	0.11	0.09		
9	0.20	0.18	0.16	0.12	0.11			
10	0.18	0.16	0.15	0.11	0.09			
11	0.17	0.15	0.14	0.11				
12	0.16	0.14	0.13	0.09				
13	0.16	0.13	0.11					
14	0.15	0.11						
15	0.14							
16	0.12							
Total infeed depth	**3.46**	**2.83**	**2.41**	**1.88**	**1.57**	**1.22**	**1.07**	**0.96**

ACME – ACME 29° – internal

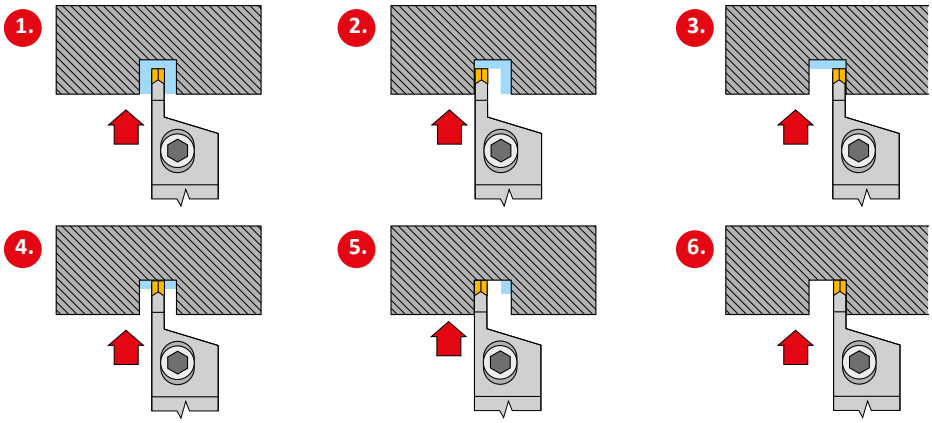
Number of passes	REDUCE THE CUTTING SPEED PROPORTIONALLY TO INCREASING THE THREAD PITCH							
	Pitch [no of thread/inch]							
	4	5	6	8	10	12	14	16
1	0.37	0.34	0.32	0.29	0.27	0.25	0.22	0.23
2	0.33	0.31	0.27	0.25	0.23	0.22	0.20	0.21
3	0.30	0.25	0.23	0.21	0.20	0.17	0.18	0.17
4	0.27	0.23	0.20	0.17	0.18	0.15	0.15	0.14
5	0.25	0.22	0.18	0.15	0.15	0.13	0.13	0.12
6	0.23	0.20	0.18	0.14	0.12	0.12	0.11	0.08
7	0.21	0.19	0.16	0.13	0.12	0.10	0.08	
8	0.20	0.19	0.15	0.12	0.11	0.09		
9	0.20	0.17	0.15	0.12	0.11			
10	0.18	0.16	0.15	0.12	0.09			
11	0.17	0.15	0.14	0.11				
12	0.16	0.14	0.13	0.09				
13	0.16	0.13	0.11					
14	0.15	0.11						
15	0.14							
16	0.12							
Total infeed dept	**3.44**	**2.78**	**2.38**	**1.90**	**1.59**	**1.23**	**1.07**	**0.95**

Recesses, parting and copy turning.

Pramet offers a comprehensive range of tools for turning shallow and deep recesses, both radially and axially (face grooving). Circular/copy profile turning can also be performed through side cutting.

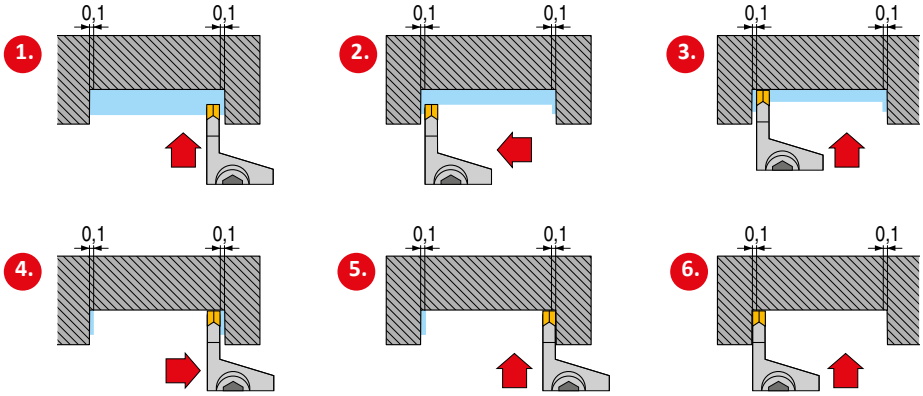
Recommendation for practical usage:

The procedure for turning a recess (deepening and widening) is shown in the following illustration.

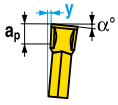


Note: To create a flat seating surface, use insert type **GL** with chip breaker **GM** or **LCMF** with chipbreaker **F.** The outboard radial grooving passes should overlap the central pass by two times the insert corner radius.

When machining a wide recess, follow the procedure shown in the following illustration.

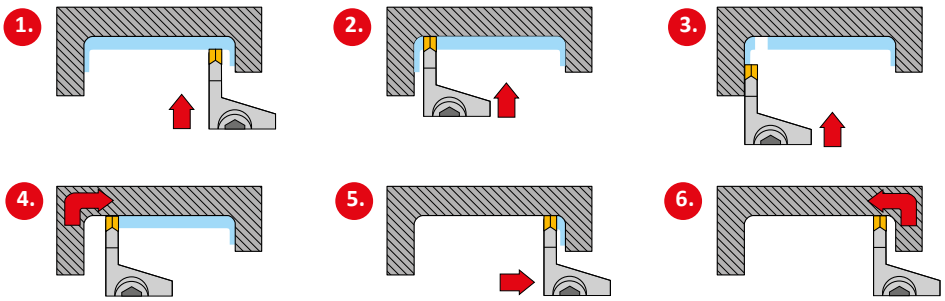


Note: Use the cutting insert LCMF with chip breaker M. You must consider the tool's deformation "*y*":

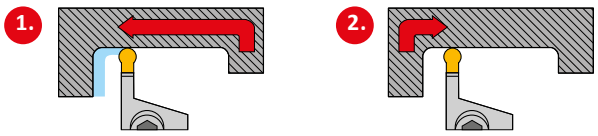


– for *f* =0,15 mm/rev; a_p = 3 mm ***y = 0,07 mm***
– for *f* =0,25 mm/rev; a_p = 3 mm ***y = 0,08 mm***
– for *f* =0,35 mm/rev; a_p = 3 mm ***y = 0,10 mm***

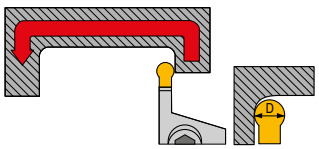
When opening up or deepening a contour using side turning, use the procedure shown in the following illustration.



Roughing of contour (insert with round cutting edge)



Finishing of contour (insert with round cutting edge)

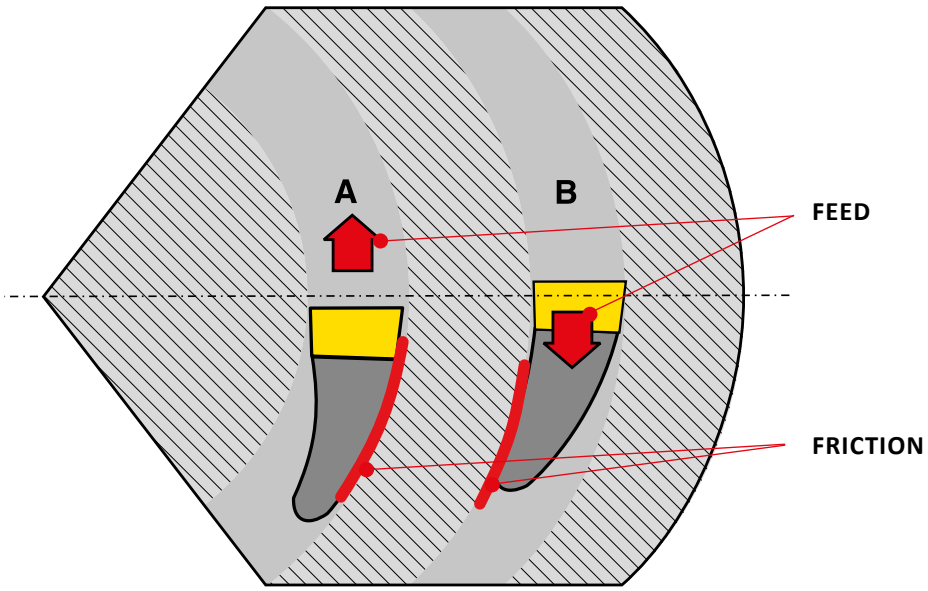


D [mm]	a_p [mm]
3	0.15
4	0.20
5	0.22
6	0.25
8	0.40

TURNING OF SLENDER SHAFTS AND INTERNAL TURNING (BORING) OF DEEP HOLES

When copy turning using indexable inserts with a round cutting edge, the maximum depth of cut is 50% of the diameter of the insert.
Choose the tool holder with the maximum cross-section and minimum tool overhang to eliminate vibrations.
The longitudinal axis of the cutting insert must be perpendicular to the axis of rotation of the workpiece (at radial recesses).
The cutting edge must be on centerline within a tolerance of + – 0,1 mm
Coolant must be applied directly onto the cutting edge, and onto the support area of the tool holder under the insert cutting edge, in sufficient quantities to guarantee effective cooling of the insert.
When face grooving it is necessary to select a tool holder with the correct range of diameters for the groove to be machined. The tool must be set parallel to the axis of rotation of the workpiece (perpendicular to the face of the groove). Otherwise there is a risk of rubbing against the wall(s) of the groove during machining.
In the event of the tool rubbing against the outer wall of the groove, it may be necessary to raise the cutting edge above centre (see example A in picture 29).

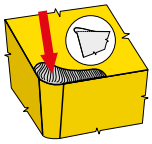
When face grooving, the tool must be set to be perpendicular to the face of the workpiece with high accuracy, otherwise the side of the tool will rub against the groove being created.

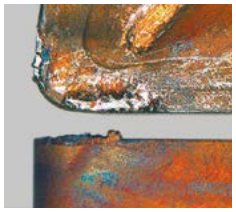


Using effective coolant, applied directly to the cutting edge in sufficient quantities, is very important. Cooling reduces the temperature of the cutting edge and also the lower part of the tool holder, in which the cutting insert is seated.

TYPES OF WEAR ON TURNING INSERTS

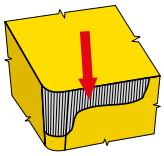
BUILT–UP EDGE

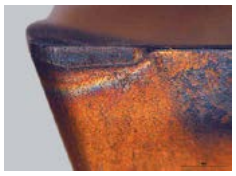




		It has no influence
(MT)CVD PVD	+ +	Any coating (decisive factor is anti-adhesion effect)
f	↑	The higher the feed rate the less probability of built-up edge creation.
v	↓↑	Change (generally increase) the cutting speed.
a_p		It has no influence
	↓↑	Use more positive geometry (built up edge is not created when the rake angle is more than 40°)
	-	Use a coolant with more effective anti-sticking properties (or no coolant at all)

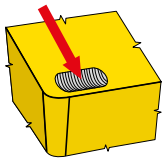
FLANK WEAR

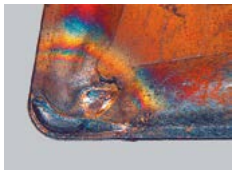




	↑	Use a more wear resistant substrate (s)
(MT)CVD PVD	+ +	Any coating (decisive factor is oxidation resistance – α al_2o_3)
f	↑	Feed has influence on shape and position of groove
v	↓	Decrease cutting speed
	↑	Minimal effect
a_p	+	Use another (more positive) cutting geometry
		Use coolant or increase its intensity

CRATERING

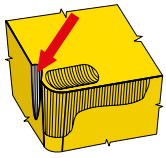


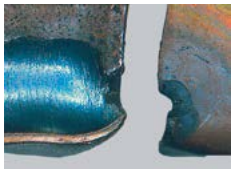


	↑	Use a more wear resistant substrate (s)
(MT)CVD PVD	+ +	Any coating (decisive factor is thermal resistance – α al_2o_3)
f	↑	Feed has influence on shape and position of crater
v	↓	Decrease cutting speed
a_p	↓	Minimal effect
	↑	Use more positive cutting geometry
	+ +	Use coolant or increase its intensity

TYPES OF WEAR ON TURNING INSERTS

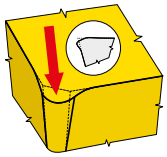
OXIDATION GROOVE ON THE MINOR EDGE

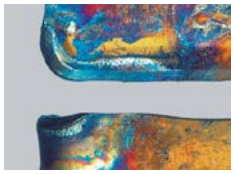




	↑	Use a more wear resistant substrate (h)
(MT)CVD / PVD	+ +	Any coating (decisive factor is hardness – tic, ticn)
f	↓	Increase feed (especially if it is under 0.1 Mm)
V	↓	Decrease cutting speed
a_p	↓	It has no influence
	↑	Increase the clearance angle
	+ +	Use a coolant or increase its intensity

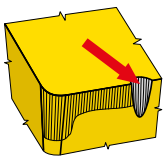
PLASTIC DEFORMATION

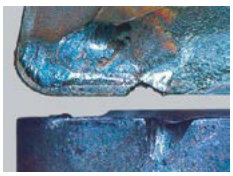




	↑	Use a more wear resistant grade (decisive factor is content of co)
(MT)CVD / PVD	+	Any coating (decisive factor is friction)
f	↓	Decrease feed rate
V	↓	Decrease cutting speed
a_p	↓	Minimal effect
	↑	Use another (more positive) cutting geometry
	+ +	Use coolant or increase its intensity

SIDE FLANK NOTCH – REMEDY

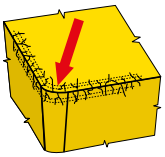


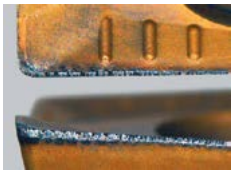


	↑ ↓	It depends on the character of the damage (abrasive – use more wear resistant substrate; breaking – use tougher substrate)
(MT)CVD / PVD	+ +	Cvd coating (decisive factor is oxidation resistance – α al_2o_3)
f	↓	Feed has influence on intensity, but less than the cutting speed
V	↓	Decrease cutting speed
a_p	↑↓	Use unequal depth of cut
	↓	Use less positive cutting geometry
	+	Use coolant or increase its intensity
		Use tool with smaller setting angle

TYPES OF WEAR ON TURNING INSERTS

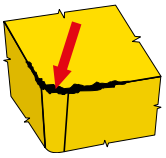
CREATION OF RACK CRACKS

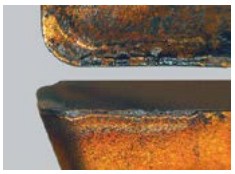




	↓	(H) grain has a great influence
(MT)CVD / PVD	+ +	Pvd coating recommended
f	↓	Feed has influence on intensity, but less than the cutting speed
v	↓	Lower speed means lower temperature
a_p		It has no influence
	↓	Use less positive cutting geometry
	- - -	No coolant (it is possible to use air to remove chips from cutting area)

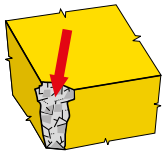
BRITTLE CRACKS AT THE CUTTING EDGE

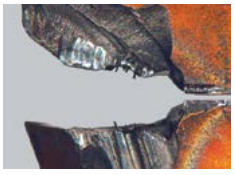




	↓	(H) grain has a great influence
(MT)CVD / PVD	+	Pvd coating recommended
f	↓	Good swarf control is very important
v	↑↓	It is about swarf control and vibration
a_p	↓	Reduces the force load (important for machining with long overhangs)
	↓	Use less positive cutting geometry
		It has no influence
		Use better working conditions, reduce feed rate until insert is in cut

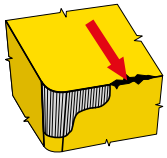
INSERT FRACTURE





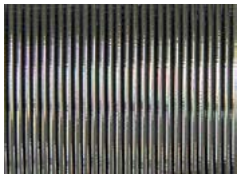
	↓	(H) grain has a great influence
(MT)CVD / PVD	+	Pvd coating recommended
f	↓	Reduces the force load
v	↑↓	It is about swarf control and vibration
a_p	↓	Reduces the force load
	↓	Use less positive cutting geometry
		It has no influence
		Use better working conditions

FAILURE OF CUTTING EDGE



	↓	(H) grain has a great influence
	+	Pvd coating recommended
	↑↓	Good swarf control is very important
	↑↓	It is about swarf control and vibration
	↑↓	Good swarf control is very important
	↓	Use less positive cutting geometry
		It has no influence
		Problem is poor swarf control or evacuation of chips

POOR SURFACE QUALITY



Description and cause:

Numerous causes depending on the workpiece material, cutting conditions (feed rate and cutting speed), the condition of the cutting edge, the extent and type of wear, and the condition and rigidity of the machine–tool–workpiece assembly.

- incorrect tool chosen
- incorrect chip thickness
- incorrect cutting speed
- coolant is needed
- high feed rate

Corrective measures:

- use a wiper insert
- use a cutting insert with the right geometry
- reduce the feed rate
- change (usually increase) the cutting speed
- use a coolant
- improve the stability of the tool and workpiece
- change the chip cross section
- select a more easy–cutting chip breaker
- increase the nose radius

VIBRATIONS

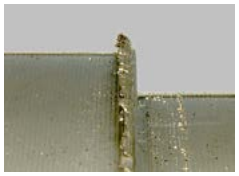
Description and cause:

This is a very common problem, which is mainly caused by an unbalanced workpiece or tool, unstable fixing of the workpiece, high cutting forces or tool overhang.

Corrective measures:

- improve the stability of the tool and workpiece
- reduce the depth of cut
- minimize tool overhang
- reduce the cutting speed
- use a tool with smaller setting angle
- reduce the chip cross section
- use a tool with a low cutting resistance
- increase the feed rate
- select a more easy–cutting chip breaker
- increase the nose radius

BURRS



Description and cause:

This usually occurs on soft steels and plastic materials.

Corrective measures:

- use a cutting insert with a sharp cutting edge
- use a cutting insert with positive geometry
- use a tool with a smaller setting angle

ERRORS IN DIMENSIONS AND SHAPE OF WORKPIECE

Description and cause:

Depends on a number of factors.

Corrective measures:

- use a wear–resistant cutting insert
- improve the stability of the cutter and workpiece
- minimize tool overhang
- use a workpiece with a suitable machining allowance

INADEQUATE CHIP FORMATION

Description and cause:

Producing a chip with a suitable shape is very important to insert durability and service life of the tool. The workpiece material, the feed rate, the depth of cut and the cutting geometry all have an effect on chip forming. A chip that is too long is unacceptable for various reasons, while a chip that is too short is undesirable as it overloads the cutting edge and causes vibrations.

Corrective measures:

- change the feed rate and depth of cut
- use a more suitable cutting geometry
- change the cutting conditions

CHECK THE SEAT CONDITION OF THE CUTTING INSERT

Before clamping a new cutting insert or changing the edge, it is necessary to clean the seat and check its condition or the condition of the anvil and wedge (especially the damage under the corner of the cutting insert).

CHECK AND SERVICE THE CLAMPING PARTS

It is also important to check the clamping parts, including clamping levers, screws, wedges and clamps. Only use original, undamaged parts (found in the catalogue). Regularly lubricate the threads and the binding surface of screws, for example using heat–resistant lubricant (Molykote G.). For assembly and disassembly, only use screwdrivers and wrenches specified in our catalogue or recommended by the tool manufacturer. Pay attention to the correct tightening (proportional) – it is advisable to use a torque wrench.

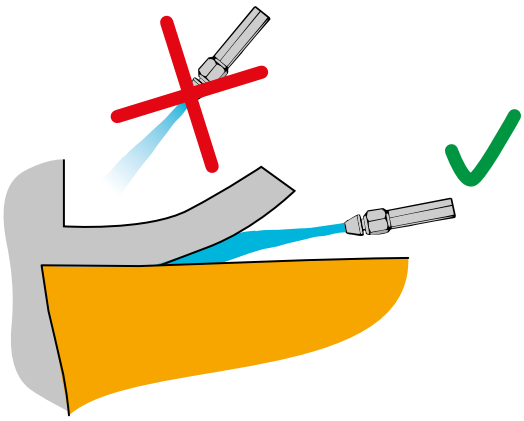
CHECK THE TIGHTENING

Before tightening, check the fit of the cutting insert on the whole of the binding surface and in the radial and axial directions. Cutting inserts and tools must always be clean and undamaged.

EFFECT OF CUTTING FLUID

Machined material – the influence of the cutting environment increases with worsening machinability of the workpiece material.
Cutting grade – the influence of the cutting environment increases with increasing toughness (Co content). Cooling is not only recommended for high-speed machining, i.e. for the application of CBN and ceramics.
Feed – the increasing feed increases the contribution of the cutting fluid to the tool life.
Cutting speed (typical for the machined material) – the higher the cutting speed, the more important the cooling effect of the cutting fluid and, conversely, the lower the cutting speed, the more important the lubricating effect of the cutting fluid.

Fluid supply is also one of the criteria that strongly affects the economy and productivity of the cutting process. In an ideal case, the liquid can be supplied to both the face and the flank of the tool. The supply of cutting fluid from the flank only affects the tool life. While the supply of fluid from the face of the tool can in some cases help you to form chips (especially in the case of high-pressure cooling). If only one of the alternatives is possible, the type of wear will indicate the right direction. If the inserts are worn on the flank, try to bring the liquid from below, i.e. to the flank of the insert. If a crater is formed, the fluid should be directed to the face of the tool (under the chip, not to its root).



FORMULA FOR CALCULATING CUTTING DATA

Value	Formula	Unit	Note
Number of revolutions	$n = \frac{v_c \cdot 1000}{D \cdot \pi}$	[1/min] [rpm]	n Number of revolutions [1/min] D Diameter (of tool or workpiece) [mm] v_c Cutting speed [m/min] f_{rev} Feed per revolution [mm/rev] f_{min} Feed per minute (Linear Feedrate) [mm/min]
Cutting speed	$v_c = \frac{\pi \cdot D \cdot n}{1000}$	[m/min]	
Feed per revolution	$f_{rev} = \frac{f_{min}}{n}$	[mm/rev]	
Feed per minute (Linear Feedrate)	$f_{min} = v_f = f_{rev} \cdot n$	[mm/min]	
Max. height of profile R_{max}	$R_{max} = \frac{125 \cdot f_{rev}^{\ 2}}{RE}$	[µm]	R_{max} max. height of profile [mm] R_a surface finish [mm] f_{rev} feed per revolution [mm/rev] RE nose radius [mm]
Surface finish R_a	$R_a = \frac{43{,}9 \cdot f_{rev}^{\ 1{,}88}}{RE^{\ 0{,}97}}$	[µm]	
Chip cross section	$A = f_{rev} \cdot a_p$	[mm²]	A Chip cross section [mm²] f_{rev} Feed per revolution [mm/rev] a_p Axial depth of cut [mm] κ_r Primary edge setting angle [°] h Chip thickness [mm] v_c Cutting speed [m/min] f_{min} Feed per minute (Linear Feedrate) [mm/min] Q Material removal rate per minute [cm³/min] $INSD$ Insert diameter [mm]
Chip thickness (For insert with straight edge)	$h = f_{rev} \cdot \sin \kappa_r$	[mm]	
Chip thickness (For round cutting insert)	$h = f_{rev} \cdot \sqrt{\frac{a_p}{INSD}}$	[mm]	
Metal removal rate	$Q = a_p \cdot f_{rev} \cdot v_c$	[cm³/min]	
Power demand	$P_c = \frac{a_p \cdot f_{rev}^{\ 1-c} \cdot k_{c1} \cdot v_c \cdot k\kappa_r}{6 \cdot 10^4 \cdot \eta}$	[kW]	P_c Power demand [kW] a_p Depth of cut [mm] f_{rev} Feed [mm/rev] c Constant KTV [1] k_c Specific cutting force [MPa] $k_{\kappa r}$ κ_r angle constant [1] η Efficiency (usually $\eta = 0{,}75$) [1] x Machined material constant [1]
Approximate power demand	$P_c = \frac{a_p \cdot f_{rev} \cdot v_c}{x}$	[kW]	

Material	Steel	Cast iron	Al
Coefficient x	20	25	100

RECOMMENDED SCREW TORQUES

Clamping screw

Screw designation	Screwdriver	Torque [Nm]
28588	MA2-8304	0.8
28992	MA2-8304	0.8
416.1-832	PT-8002	3.6
5513 020-01	PT-8004	3.6
5513 020-03	PT-8001	0.8
5513 020-04	PT-8003	1.5
5513 020-05	PT-8001	0.8
5513 020-14	TX 225PLUS	8.5
5513 020-24	PT-8002	1.5
5513 020-27	PT-8000	0.6
5513 020-28	PT-8000	0.6
5513 021-03	DMN 3124	13
CS 8601-T09P	SDR T09P	1.7
CS 8601-T15P	SDR T15P	3.9
CS 8601-T20P	SDR T20P	6.4
CS 8601-T25P	SDR T25P	9.5
DVF 0573	PT-8002	1.5
DVF 2260	TX 215PLUS	3.6
DVF 3584	DMD 1650	0.6
DVF 3593	TX 207PLUS	0.8
HS 0408	HXK 3	5
HS 0520C	HXK 4	5
HS 0616C	HXK 5	8
HS 0620	HXK 5	6
HS 0620C	HXK 5	6
HS 0625	HXK 5	6
HS 0625C	HXK 5	6
HS 0630	HXK 5	6
HS 0825	HXK 6	10
HS 0830	HXK 6	10
HS 0835	HXK 6	10
HS 0840	HXK 8	11
HS 1030	HXK 8	8
HS 1060	HXK 6	10
HS 93	HXK 5	8
HS 94	HXK 5	8
HSI 1020	HXK 6	8
PS 0512	HXK 2	2
PS 0512-A	HXK 2	2
PS 0616	HXK 2,5	4
PS 12040	HXK 5	8
PS 6026-709P	SRD T09P	2

Clamping screw

Screw designation	Screwdriver	Torque [Nm]
PS 8290	HXK 2	2
SR 14	HXK 10	10
SR 85011-T15P	SDR T15P	5
SR 85017-T09P	SDR T09P	2
SR 85020-T15P	SDR T15P	3
SR 86025-T20P	SRD T20P	5
T20.037	DMD 1650	0.6
UP 0909-T09P	SRD T09P	2
UP 1515-T15P	SDR T15P	8
US 2505-T07P	SDR T07P	0.9
US 2506-T07P	SDR T07P	0.9
US 3007-T09P	SDR T09P	2
US 34	HXK 3	5
US 35	HXK 4	6
US 3508-T15P	SDR T15P	3
US 3510A-T15P	SDR T15P	3
US 3510-T15P	SDR T15P	3
US 3512A-T15P	SDR T15P	3
US 3512-T15P	SDR T15P	3
US 36	HXK 4	6
US 38	HXK 5	8
US 39	HXK 5	8
US 40	HXK 4	6
US 4008-T15P	SDR T15P	3.5
US 4011-T15P	SDR T15P	3.5
US 41	HXK 4	6
US 42	HXK 4	6
US 45013-T20P	SDR T20P	5
US 4512-T15P	SDR T15P	5
US 4514A-T20	SDR T20	5
US 46	HXK 3	5
US 46017-T20P	SDR T20P	5
US 47	HXK 5	8
US 5012-T15P	SDR T15P	5
US 5015-T20P	SDR T20P	5
US 5018-T20P	SDR T20P	5
US 6020-T25P	SDR T25P	6
US 64518-T15P	SDR T15P	5
US 8025-T30P	SDR T20P	13
US 83	HXK 4	6
US 95	HXK 4	10

TORQUE SCREWDRIVERS

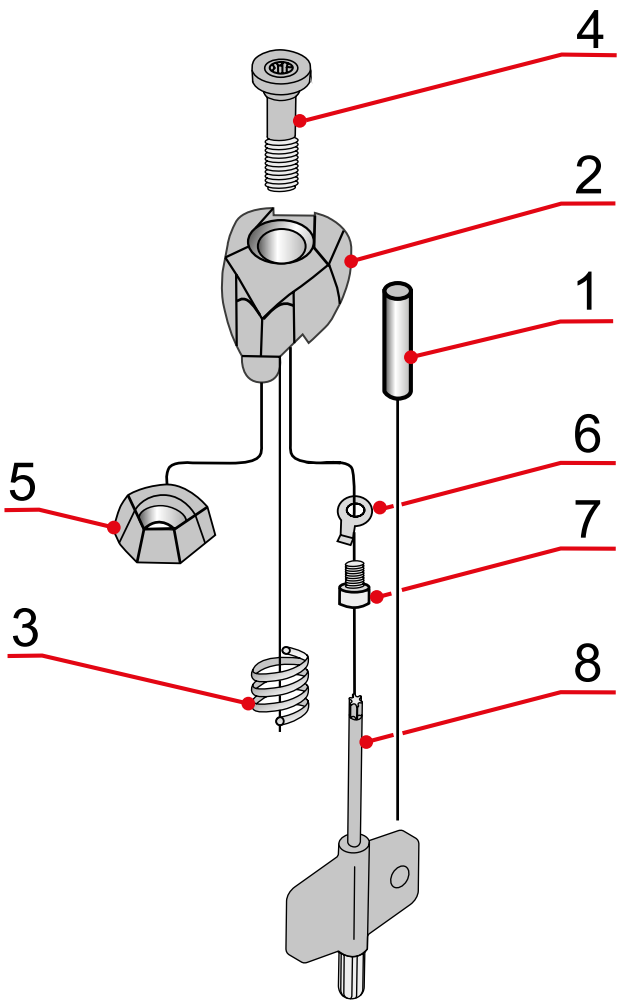
Torque handle	Torque [Nm]	Clamping screw thread
MR-0,8-2,0 vario	0.5 – 2.0	M 2 – M 3
MR-1,0-5,0 vario	0.8 – 5.0	M 2,5 – M 5
MR-0,9 fix	0.9	M 2
MR-2,0 fix	2.0	M 3
MR-3,0 fix	3.0	M 3,5
MR-3,5 fix	3.5	M 4
MR-5,0 fix	5.0	M 5

Replaceable shanks

Replaceable shanks		
D-T6	**D-T8**	**D-T15**
D-T6P	**D-T8P**	**D-T15P**
D-T7	**D-T9**	**D-T20**
D-T7P	**D-T9P**	**D-T20P**

SCREW LUBRICATION

Insert clamping screws are subject to high thermal stresses. It is recommended that all screws be lubricated with a high quality paste such as MOLYKOTE 1000.



	1	2	3	4		5	6	7	8
					Nm				
DCS 09	CP 2655	CD 09	PR 0157	CS 8601-T09P	1.7	–	–	–	–
DCS 12	CP 2607	CD 12	PR 0158	CS 8602-T15P	3.9	–	–	–	–
DCS 16	CP 2607	CD 16	PR 0159	CS 8603-T20P	6.4	–	–	–	–
DCS 19	CP 2607	CD 19	PR 0159	CS 8603-T20P	6.4	–	–	–	–
DCS 25	CP 2607	CD 25	PR 0101	CS 8604-T25P	9.5	–	–	–	–
DCS 16V	CP 2607	CD 16V	PR 0158	CS 8602-T15P	3.9	–	–	–	–
DCS 12C2	CP 2607	CD 12C2	PR 0158	CS 8602-T15P	3.9	PP 3002	H 1201	CS 9701-T07P	FLAG T07P
DCS 16C2	CP 2607	CD 16C2	PR 0159	CS 8603-T20P	6.4	PP 3003	H 1201	CS 9701-T07P	FLAG T07P
DCS 12C4	CP 2607	CD 12C4	PR 0158	CS 8602-T15P	3.9	PP 3002	H 1201	CS 9701-T07P	FLAG T07P
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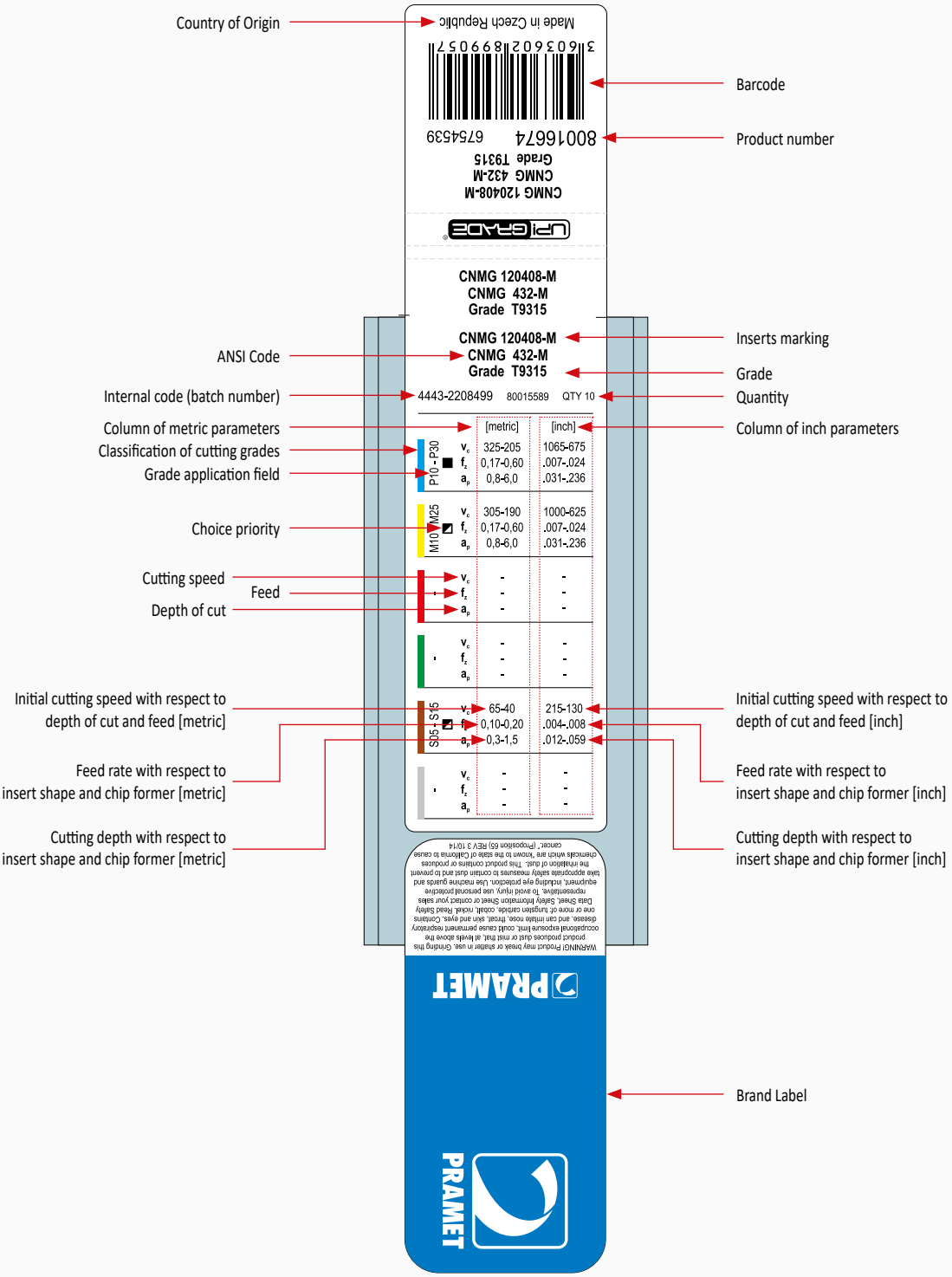
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Made in Czech Republic
3160360289905 7
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8001667 4 6754539
Grade T9315
CNMG 432-M
CNMG 120408-M
CNMG 120408-M
CNMG 432-M
Grade T9315
ANSI Code
Internal code (batch number)
Column of metric parameters
Classification of cutting grades
Grade application field
Choice priority
Cutting speed
Feed
Depth of cut
Initial cutting speed with respect to depth of cut and feed [metric]
Feed rate with respect to insert shape and chip former [metric]
Cutting depth with respect to insert shape and chip former [metric]
Inserts marking
Grade
Quantity
Column of inch parameters
Initial cutting speed with respect to depth of cut and feed [inch]
Feed rate with respect to insert shape and chip former [inch]
Cutting depth with respect to insert shape and chip former [inch]
Brand Label
4443-2208499 80015589 QTY 10
[metric] [inch]
P10 - P30
M10 - M25
S05 - S15
325-205 1065-675
0,17-0,60 .007-.024
0,8-6,0 .031-.236
305-190 1000-625
0,17-0,60 .007-.024
0,8-6,0 .031-.236
65-40 215-130
0,10-0,20 .004-.008
0,3-1,5 .012-.059
PRAMET

SIMPLY RELIABLE

As a professional you can judge the quality of work by just looking at the chip. Our chip is a clean and uncomplicated shape that in itself tells a story. It is a clear and consistent signal and that's why we use it as a symbol for being **Simply Reliable**.

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