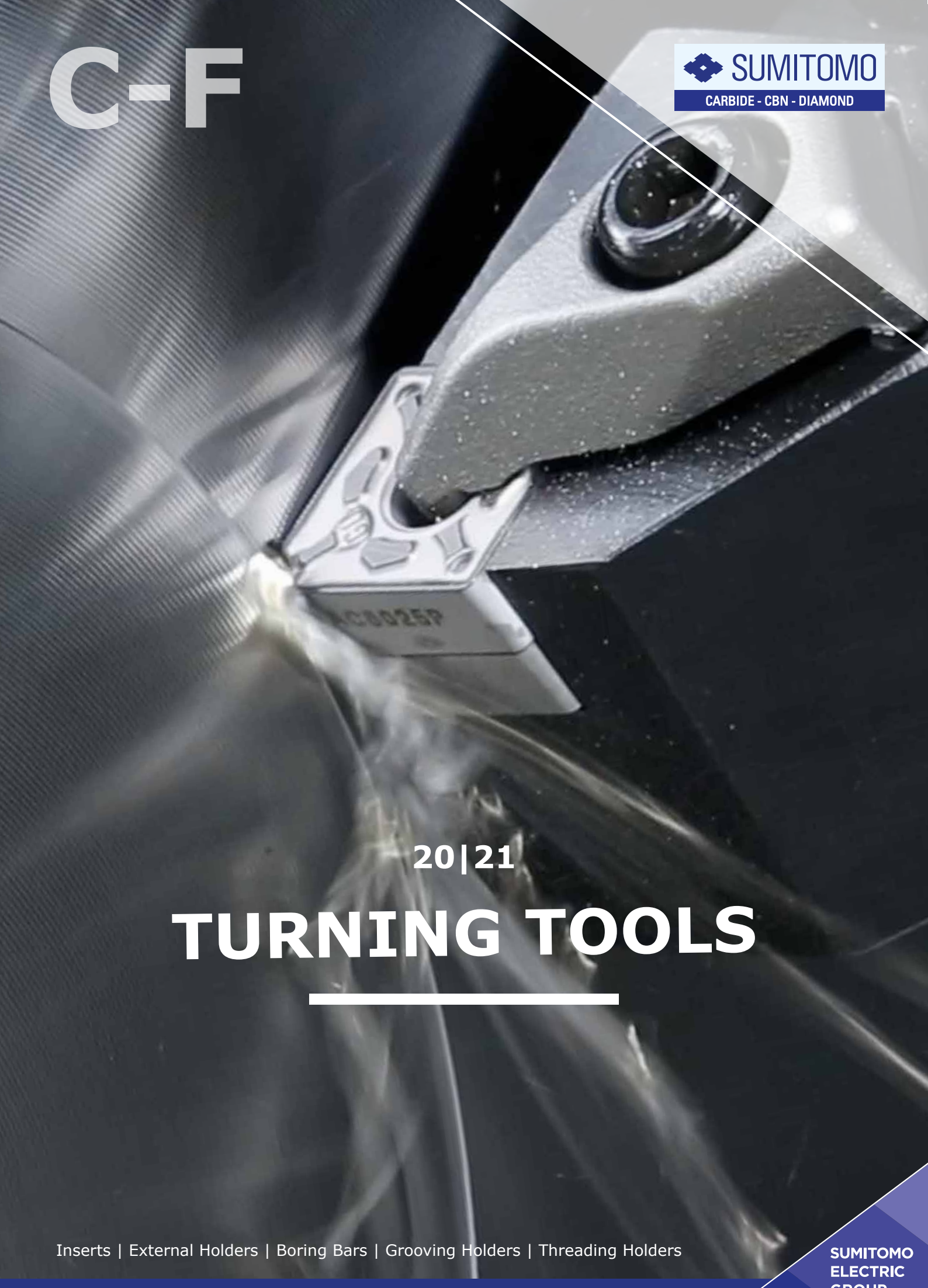
C-F

SUMITOMO
CARBIDE - CBN - DIAMOND



20|21

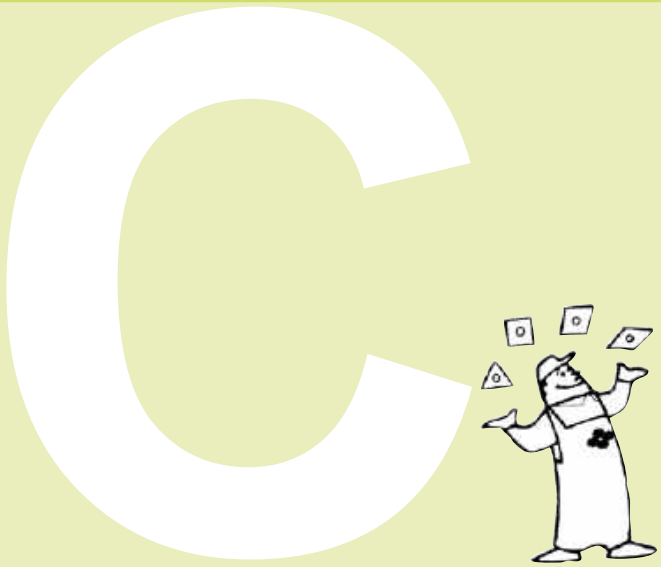
TURNING TOOLS

Inserts | External Holders | Boring Bars | Grooving Holders | Threading Holders

SUMITOMO ELECTRIC GROUP

Indexable Inserts for Turning
Negative / Positive Inserts

C1–C94



Stock marking chart

- ● : Euro stock item
- ○ : Japan stock item
- ▲ : To be replaced by new item

[—] : We cannot produce

Note:
Stocking policy may change without prior notice, please consult our sales representative for actual stock situation.

Inserts Identification Table

C N M G

① **Insert Shape** — Chart 1

② **Relief Angle** — Chart 2

③ **Tolerance** — Chart 3

④ **Insert Type** — Chart 4

Chart 1: Insert Shape

Symbol	Insert Shape		Angle
C		Diamond	80°
D			55°
E			75°
F			50°
V			35°
R		Round	—
S		Square	90°
T		Triangle	60°
W		Trigon	80°
A		Parallelogram	85°
B			82°
K			55°
H		Hexagonal	120°
O		Octogonal	135°
P		Pentagonal	108°
L		Rectangular	90°
M		Rhombic	86°

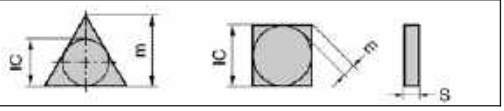
Chart 2: Relief Angle

Symbol	Relief Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P*	11°
O	Others

* Inserts with a 10° relief angle are sometimes considered as "P"

Chart 3: Tolerance (mm)

Symbol	Nose Height	Inscribed Circle	Thickness
A	± 0,005	± 0,025	± 0,025
F	± 0,005	± 0,013	± 0,025
C	± 0,013	± 0,025	± 0,025
H	± 0,013	± 0,013	± 0,025
E	± 0,025	± 0,025	± 0,025
G	± 0,025	± 0,025	± 0,13
J*	± 0,005	±0,05 – ±0,15	± 0,025
K*	± 0,013	±0,05 – ±0,15	± 0,025
L*	± 0,025	±0,05 – ±0,15	± 0,025
M*	±0,08 – ±0,2	±0,05 – ±0,15	± 0,13
N*	±0,08 – ±0,2	±0,05 – ±0,15	± 0,025
U*	±0,13 – ±0,38	±0,08 – ±0,25	± 0,13



The height "m" on sharp corner.

Chart 4: Insert Hole or Breaker

Symbol	Hole	Hole Style	Chip Breaker	Shape	Symbol	Hole	Hole Style	Chip Breaker	Shape
N	No Hole	—	Nil		A	With Hole	Straight Hole	Nil	
R			One Face		M			One Face	
F			Both Faces		**G**			Both Faces	
W	With Hole	Straight hole with top end counter-sink (40°–60°)	Nil		B	With Hole	Straight hole with top end counter-sink (70°–90°)	Nil	
T			One Face		H			One Face	
Q	With Hole	Straight hole with top end counter-sink (40°–60°)	Nil		C	With Hole	Straight hole with top end counter-sink (70°–90°)	Nil	
U			Both Faces		J			Both Faces	
					X	—	—	—	Special

● Tolerance of Nose Height (M-Class)

Inscribed Circle	Triangle	Square	80° Diamond	55° Diamond	35° Diamond	Round
6,35	± 0,08	± 0,08	± 0,08	± 0,11	—	—
9,525	± 0,08	± 0,08	± 0,08	± 0,11	± 0,16	
12,70	± 0,13	± 0,13	± 0,13	± 0,15		
15,875	± 0,15	± 0,15	± 0,15	± 0,18		
19,05	± 0,15	± 0,15	± 0,15	± 0,18		
25,40	± 0,18	± 0,18	± 0,18			
31,75	—	± 0,20				

● Tolerance of Inscribed Circle (M-Class)

Inscribed Circle	Triangle	Square	80° Diamond	55° Diamond	35° Diamond	Round
6,35	± 0,05	± 0,05	± 0,05	± 0,05	—	—
9,525	± 0,05	± 0,05	± 0,05	± 0,05	± 0,05	± 0,05
12,70	± 0,08	± 0,08	± 0,08	± 0,08	—	± 0,08
15,875	± 0,10	± 0,10	± 0,10	± 0,10	—	± 0,10
19,05	± 0,10	± 0,10	± 0,10	± 0,10	—	± 0,10
25,40	± 0,13	± 0,13	± 0,13	—	—	± 0,10
31,75	—	± 0,15	—	—	—	± 0,12

Inserts Identification Table

12 04 08 N - GE

⑤ **Insert Size** — Chart 5

⑥ **Thickness** — Chart 6

⑦ **Corner Radius** — Chart 7

⑧ **Feed Direction** — Chart 8

⑨ **Chip Breaker** — Chart 9

Picture of insert shown as example
(ISO Cat, No,)

Chart 5: Cutting Edge Length (mm)

Shape	Symbol	Cutting Edge	Inscribed Circle	Shape	Symbol	Cutting Edge	Inscribed Circle	Shape	Symbol	Cutting Edge	Inscribed Circle
C	03	3,55	3,50	D	07	7,7	6,35	W	03	3,8	5,56
	04	4,97	4,30		09	9,7	7,94		04	4,3	6,35
	06	6,4	6,35		11	11,6	9,525		05	5,4	7,94
	08	8,0	7,94		15	15,5	12,70		06	6,5	9,525
	09	9,7	9,525		19	19,4	15,875		08	8,7	12,70
	12	12,9	12,70						10	10,9	15,875
	16	16,1	15,875	V	08	8,3	4,76				
	19	19,3	19,05		09	9,7	5,56				
	25	25,8	25,4		11	11,1	6,35	R	08	8,0	8,0
					16	16,6	9,525		10	10,0	10,0
					22	22,1	12,7		12	12,0	12,0
S	06	6,35	6,35	T	06	6,9	3,97		12	12,70	12,70
	S7	7,14	7,14		08	8,2	4,76		15	15,875	15,875
	07	7,94	7,94		09	9,6	5,56		16	16,0	16,0
	09	9,525	9,525		11	11,0	6,35		19	19,05	19,05
	12	12,70	12,70		13	13,7	7,94		20	20,0	20,0
	15	15,875	15,875		16	16,5	9,525		24	24,0	24,0
	19	19,05	19,05		22	22,0	12,70		25	25,0	25,0
	25	25,40	25,40		27	27,5	15,875		25	25,40	25,40
	31	31,75	31,75		33	33,0	19,05		32	32,0	32,0

Chart 6: Thickness

Symbol	Thickness (mm)
X1	*
01	1,59
02	2,38
T2	2,78
03	3,18
T3	3,97
04	4,76
05	5,56
06	6,35
07	7,94
09	9,52

(*):
CCET03X1 Insert thickness: 1,40
CCET04X1 Insert thickness: 1,80

Chart 7: Nose Radius

Symbol	Nose Radius (mm)
00	Sharp Point
003	0,03
008	0,08
01	0,1
015	0,15
018	0,18
02	0,2
0,35	0,35
04	0,4
08	0,8
10	1,0
12	1,2
16	1,6
20	2,0
24	2,4
32	3,2
M0	Round Insert (Metric)
00	Round Insert (Imperial)

An "M" after the nose radius indicates a negative tolerance
Example:
CCG T09T302 **M** NSI AC520U

Chart 8: Feed Direction

Symbol	Direction
R	Right-hand
L	Left-hand
N	Neutral

Chart 9: Chip Breaker

Symbol	Process	Bumpy Type	Standard	Handed
F	Fine Finishing to Finishing	FA, FL, FE, FB, FC FK, FP		FT, FX, FZ FY, FW
S L	Light Cut	SE, SEW, SI, SC, SF, SP, SU, SX LU, LUW, LB		SD SDW ST
G U	General	**GE**, GU, GUW UG, UP US, UX	GZ UZ	UM
M	Rough	MP, MU, MX, ME	MC	MM HM
H	Heavy	HG, HP, HF	HU HW	

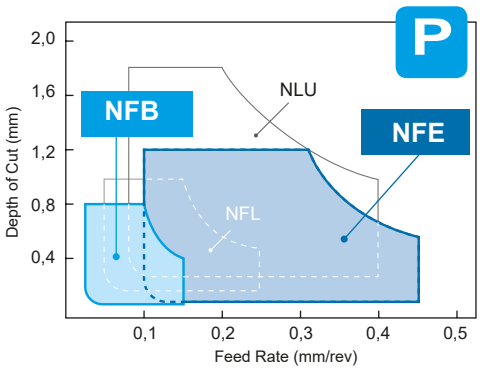
Other Specials	
Wide Chipbreaker	W
For Countersink	C
For Round insert	RD, RP, RX, RH
For Exotic Alloy	EF, EG, EX, EM
For Aluminium	AG, LD, GD,
For Hardened Steel	FV, LV, GH
For Carburized Layer Removal	SV
For Stainless Steel	EF, EG, EM

Negative M Class Chipbreakers for Low Carbon and General Steel Turning

General Features

The high performance NFE type, which ensures stable chip control in a wide range of feed rate, has been added to the chipbreaker series for low carbon steel and general steel turning.
Extensive product lines are available to meet various machining requirements.
A positive insert execution of chipbreaker NFB is also available.

Application Range



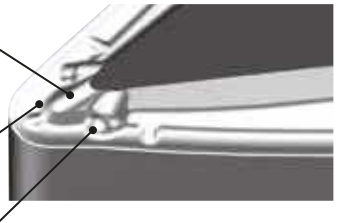
NFE Chipbreaker for Finishing

Supports general purpose machining to high speed machining.

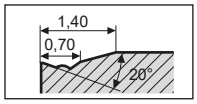
The arc-shaped main breaker ensures stable chip control in a wide feed rate range.

The two step chipbreakers enable stable chip control at a low feed rate of f = 0,1 mm/rev.

The sub-breaker controls cutting chips in profiling.



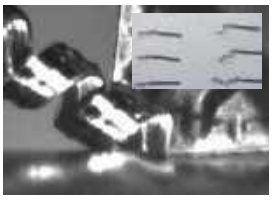
Cross-section of chipbreaker



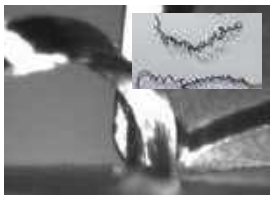
Performance

Work Material:	Pipe steel (H240LA, 1.0480)
Insert:	CNMG 120408 NFE (AC8025P)
Cutting Conditions:	v_c=200 m/min, f=0,4 mm/rev, a_p=0,2 mm, dry

Excellent chip control under low depth of cut and high feed rate condition



NFE Type (AC8025P)



Conventional

Application Examples

Work Material:	Deep-draw steel (SPHC440)
Facing Insert:	CNMG 120408 NFE (AC8025P)
Cutting Conditions:	v_c = 200 m/min, f = 0,15 mm/rev, a_p = 0,2–0,5 mm, wet

Stable chip curling and breaking in facing of gummy steel.

NFE Type (AC8025P)

Competitor

Work Material:	C53E,1.1210, Ø20-100
Exter. Turning+Facing Ins.:	DNMG 150412 NFE (AC8025P)
Cutting Conditions:	v_c=180m/min, f=0,25mm/rev (radius), 0,45mm/rev (straight section), a_p = 0,3 mm, wet

Stable chip control even at a variable feed rate in shallow cutting.

NFE Type (AC8025P)

Conventional

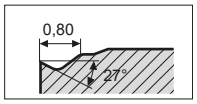
NFB Chipbreaker for Low Feed Finishing

Supports low feed machining.

Smooth chipbreaker geometry with a high rake reduces cutting resistance.

The variable rake angle in nose radius makes effective strain on chips and improves the breaking performance.

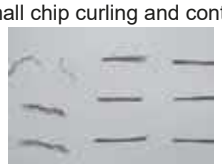
Cross-section of chipbreaker



Application Example

Work Material:	Pipe steel (STKM13C)
Internal Turning Insert:	DNMG 150404 NFB (T3000Z)
Cutting Conditions:	v_c= 352 m/min, f=0,03–0,2 mm/rev a_p= 0,7 mm, Wet

Small chip curling and control



NFB Type (T3000Z)

Competitor

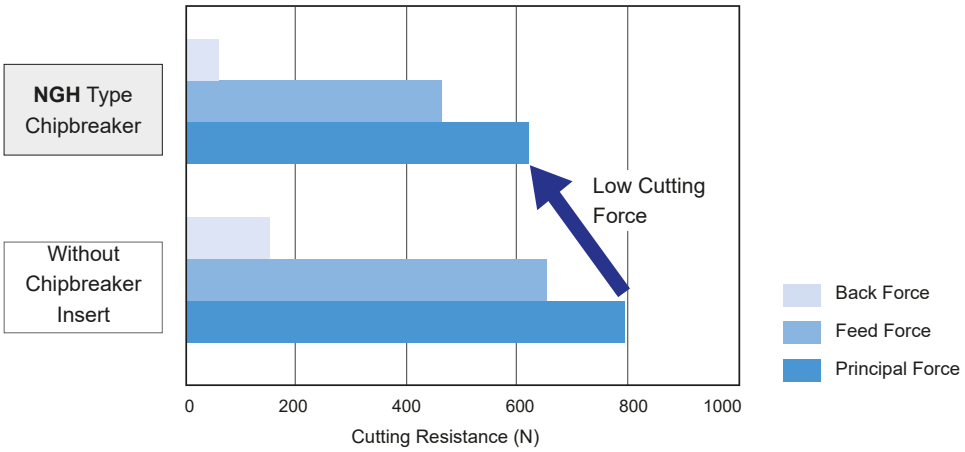
Chipbreaker
NGH Type

General Features

Enables medium roughing of hardened steel in combination with coating and grade AC503U.
Reduces heat generation and enables deep cutting (a_p = 1–3 mm) of hardened steel by using a wide neutral ground chipbreaker (rake angle: 4°) and sharp edge.
Discharges chips smoothly.

Negative Insert for Rough Cutting NGH Type Chipbreaker

Performance



Application Examples

NGH Type Chipbreaker

Only minor wear occured after 40 min cutting

Stable chip forming

Without Chipbreaker

Major wear occured after 20 min cutting

Work Material:	X155CrVMo12-1 (61HRC)
Insert:	TNGG 160404 NGH (AC503U)
Cutting Conditions:	v_c= 50 m/min, f= 0,05 mm/rev, a_p= 3,0 mm, dry

Recommended Cutting Conditions

Application Range	Cutting Speed v_c (m/min)	Feed Rate f (mm/rev)	Depth of Cut a_p (mm)	Recommended Chipbreaker
Finishing	40–100	0,02–0,10	<1	Without chipbreaker
Medium Roughing	20–60	0,02–0,05	1–3	NGH Type

Work Material: Hardened steel (50–62 HRC), X155CrVMo12-1, X40CrVMo5-1, S6-5-2, High-speed powder and high speed steel

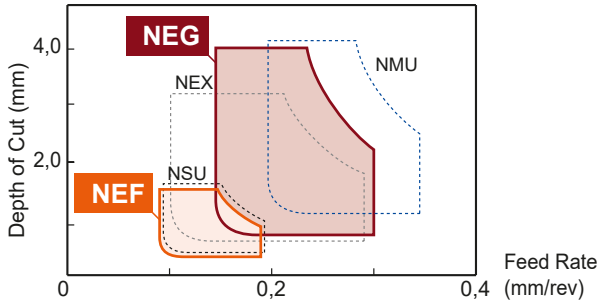
Chipbreaker
NEG Type / NEF Type

For Exotic Alloys and Stainless Steel Turning

■ General Features

NEG/NEF type chipbreaker for exotic alloy machining can be used for Titanium alloys, heat-resistant alloys and a variety of other exotic alloys.
They deliver excellent wear resistance and superior chip management. These chipbreakers can solve quality problems caused by the unstable tool life and poor chip control provided by conventional chipbreakers for exotic alloys.

■ Application Range

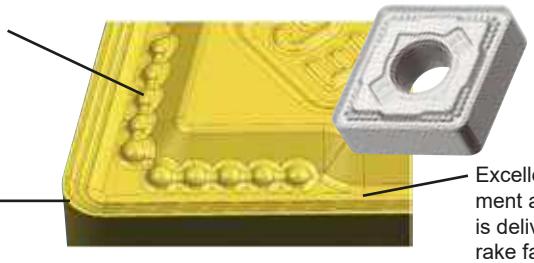


NEG Chipbreaker for Roughing

Provides excellent wear resistance and chip control from general-purpose machining to roughing applications. Reduces damage to insert and eliminates trouble from chips specific to exotic alloys. Also demonstrates very high versatility.

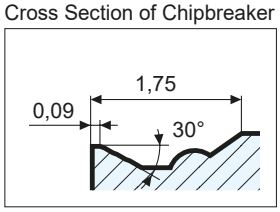
Crater wear advancement is prevented by the round bumps, whilst maintaining excellent control.

The cutting edge maintains the strength slowing the progress of crater wear.



Excellent chip management and wear prevention is delivered by the special rake face design.

Cross Section of Chipbreaker



● Cutting Performance – NEG Type

Heat Resistant Alloy

Chipbreaker type: NEG (AC510U)

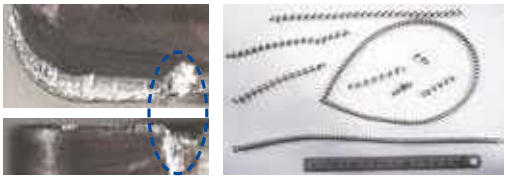
Suppresses the chipping of peripheral cutting edge and notch wear. Excellent chip management.

Work Material: Inconel 718

Insert: CNMG120412

Cutting Data:
v_c = 40 m/min
a_p = 2,5 mm
f = 0,2 mm/rev
wet
T_c = 7 min

Conventional tool (S10)



Notch wear / poor chip control

Titanium Alloy

Chipbreaker type: NEG (AC510U)

Suppresses crater wear and flank wear. Excellent chip management.

Work Material: Ti-6Al-4V

Insert: CNMG120412

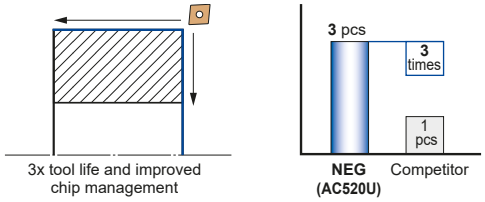
Cutting Data:
v_c = 65 m/min
a_p = 2,5 mm
f = 0,2 mm/rev
wet
T_c = 8 min

Conventional tool (S10)

Crater wear / flank wear / poor chip control

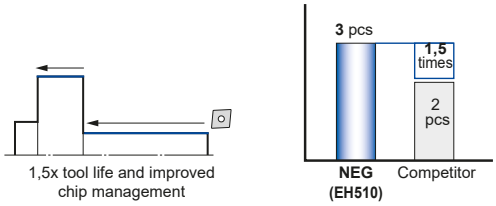
● Application Example – NEG Type

Inconel 718, machine component



Insert: CNMG120408 NEG (AC520U)
Cutting Data: v_c = 50 m/min, a_p = 1,5 mm, f= 0,3 mm/rev, wet

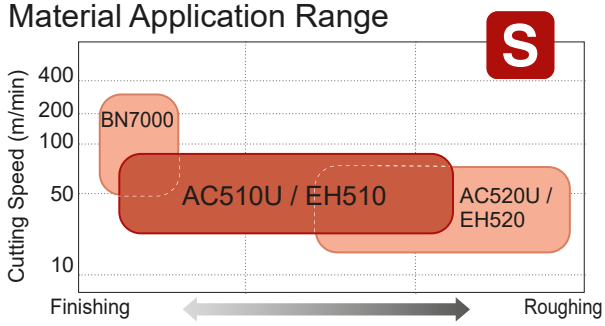
Pure Titanium (Ti grade 3), machine component

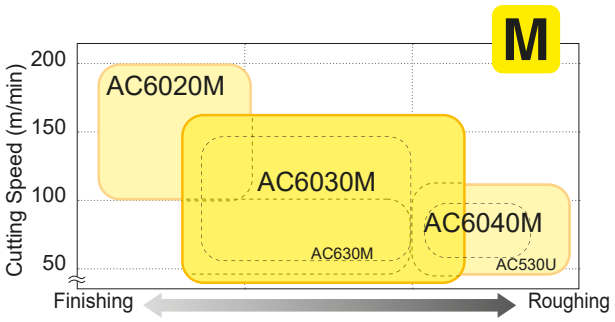


Insert: CNMG120408 NEG (EH510)
Cutting Data: v_c=80–100 m/min, a_p=1,0mm, f=0,25mm/rev, wet

Chipbreaker
NEG Type / NEF Type

■ Material Application Range



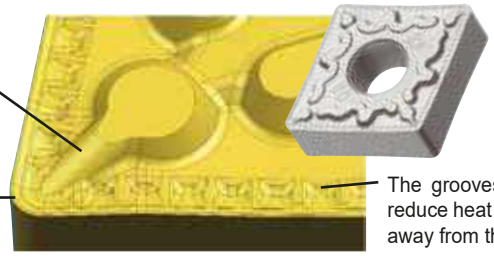


NEF Chipbreaker for Finishing

The NEF chipbreaker reduces chip curl diameter in finishing applications.
Provides extremely good chip management not fluctuated by the material in use.

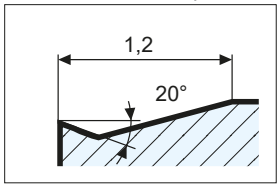
Main chipbreaker that enables good chip control even at low depths of cut.

Sharp edge with 20° rake angle reduces wear.



The grooves on the rake face reduce heat and assist chip flow away from the workpiece.

Cross Section of Chipbreaker



● Cutting Performance – NEF Type

Heat Resistant Alloy

Chipbreaker type: NEF (AC510U)

Improvements in chip control and chip removal management based on small curled chips.

Work Material: Inconel 718

Insert: CNMG120408

Cutting Data:
v_c = 55 m/min
a_p = 0,3 mm
f = 0,15 mm/rev
wet
T_c = 8 min

Conventional tool (S10)	Competitor's product (S10)
	

There is a problem in the length and the diameter of chips.

Titanium Alloy

Chipbreaker type: NEF (AC510U)

Improvements in chip control and chip removal management based on small curled chips.

Work Material: Ti-6Al-4V

Insert: CNMG120408

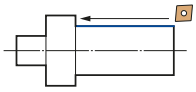
Cutting Data:
v_c = 80 m/min
a_p = 0,5 mm
f = 0,2 mm/rev
wet
T_c = 25 min

Conventional tool (S10)	Competitor's product (S10)
	

There is a problem in the length and the diameter of chips.

● Application Example – NEF Type

Inconel 718, shaft component



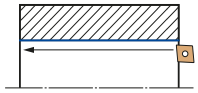
Great improvement in chip management. Keeps workpieces free of damage. It is possible to omit final polishing process.

NEF (AC510U)

Conventional tool

Insert: CNMG120408 NEF (AC510U)
Cutting Data: v_c= 45 m/min, a_p= 0,25 mm, f = 0,1 mm/rev, wet

Duplex stainless steel cover



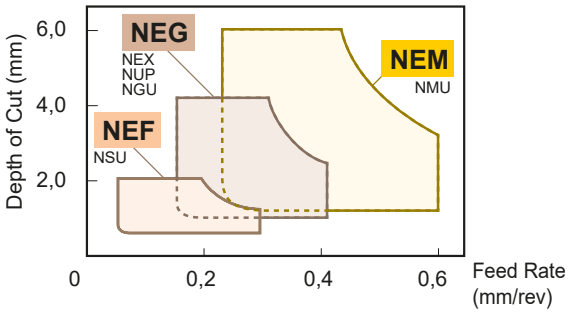
Improvements in chip management. Suppress damage to finished surface with no entanglement of chips.

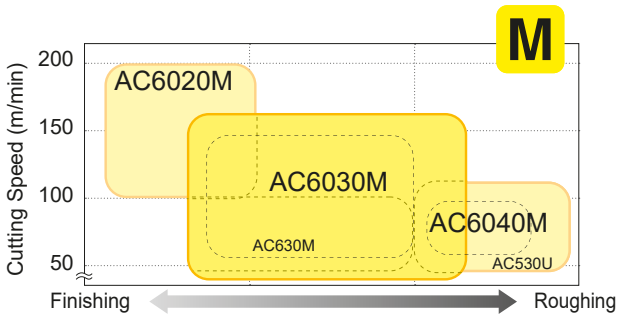
NEF (AC510U)

Conventional tool

Insert: CNMG120408 NEF (AC510U)
Cutting Data: v_c= 55 m/min, a_p = 0,3 mm, f = 0,125 mm/rev, wet

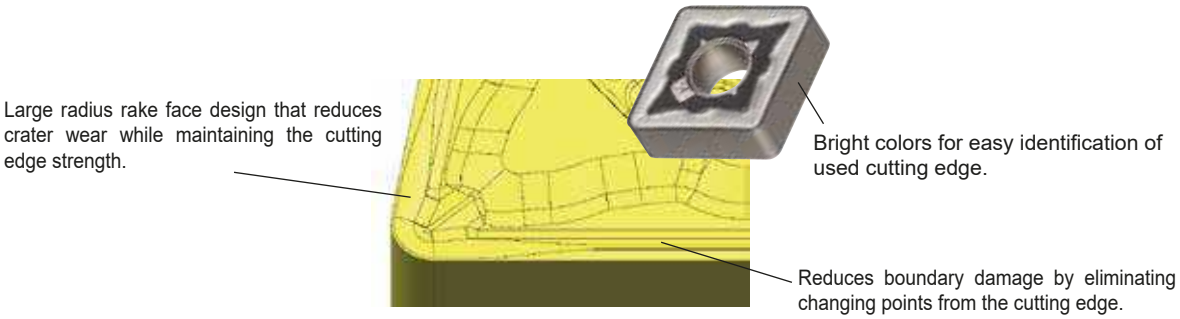
■ Application Range



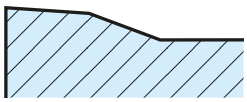
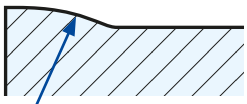


NEM Chipbreaker for Rough Cutting

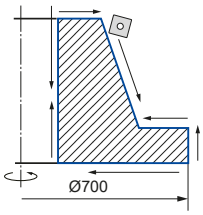
The NEM chipbreaker achieves excellent fracture and crater resistance and ensures extremely stable machining.

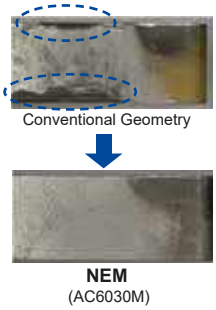


● Reduction of Damage

	Reduction of Boundary Damage		Reduction of Crater Wear	
	Cutting Edge	Boundary Wear Comparison	Cross Section	Crater Wear Comparison
Conventional Geometry				
NEM Type				
	The NEM chipbreaker has no changing points on the cutting edge, so boundary damage is reduced.		The NEM chipbreaker smoothly evacuates chips thanks to its large radius rake face design, so crater wear is reduced.	

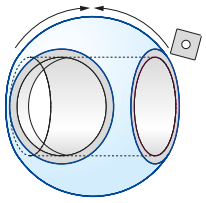
● Application Example

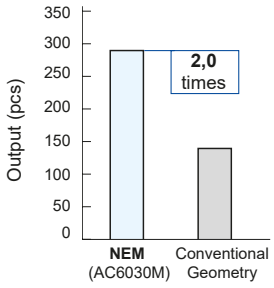




Reduces breakage out of the cutting edge and ensures stable machining.

Work Material:	X5CrMo17 12 2
Insert:	SNMG190616NEM (AC6030M)
Cutting Conditions:	v_c = 70 m/min, f = 0,5 mm/rev, a_p = 3,0–8,0 mm, wet



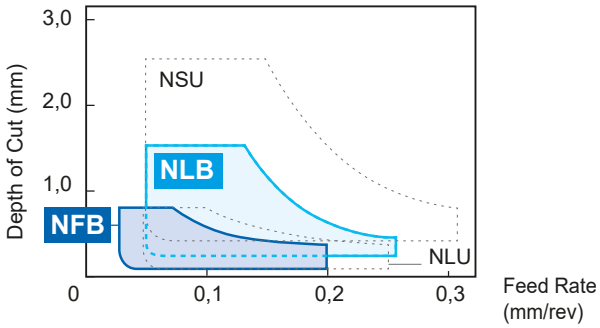


Reduces crater wear and provides long tool life.

Work Material:	X5CrNiS18 10
Insert:	SNMG120408NEM (AC6030M)
Cutting Conditions:	v_c =100 m/min, f = 0,32 mm/rev, a_p = 2,0–2,5 mm, wet

Chipbreaker
NFB Type / NLB Type

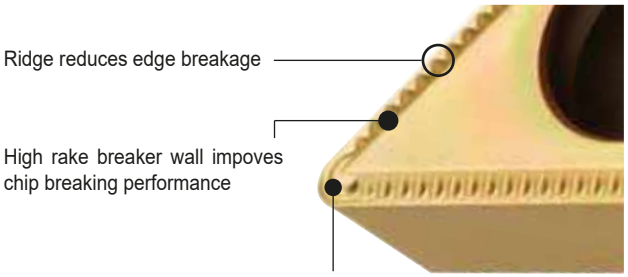
■ Application Range

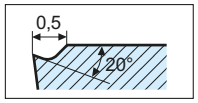


NFB Chipbreaker for Finishing

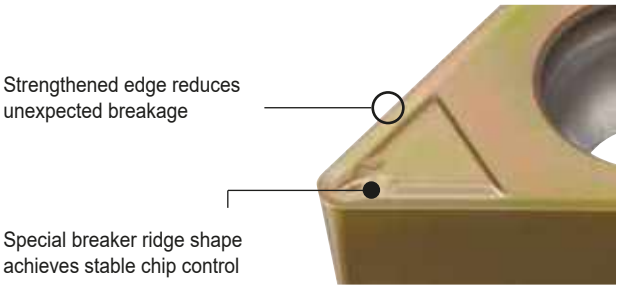
NLB Chipbreaker for Light Cutting

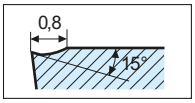
The NFB type for finishing and the NLB type for light cutting have been added to the chipbreaker series for low carbon and general steel machining in addition to the already present NLU type for finishing and NSU type for light cutting.
The NFB and NLB type chipbreakers improve chip control in finishing of low carbon and general steel.





Cross Section of Chipbreaker



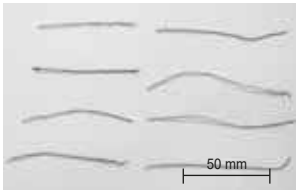


Cross Section of Chipbreaker

● Performance

Chip Control

Achieves stable chip control at small cutting depth and low feed.

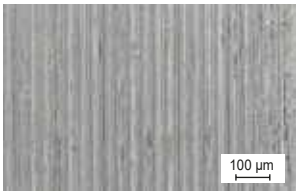


NFB Type Chipbreaker (T1500A)

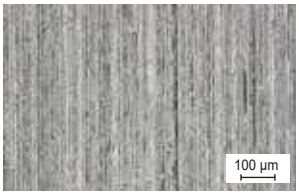
Competitor's Product

Work Material:	Pipe (H240LA), Ø 30 Boring
Insert:	TPMT 110304 NFB (T1500A)
Cutting Conditions:	v_c = 100 m/min, f = 0,12 mm/rev, a_p = 0,1 mm, wet

Comparison of Surface Roughness of Finished Surfaces



NFB Type Chipbreaker (T1500A)



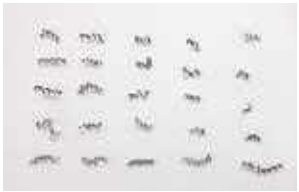
Competitor's Product

Work Material:	Pipe (H240LA), Ø 100 Boring
Insert:	TPMT 110304 NFB (T1500A)
Cutting Conditions:	v_c = 200 m/min, f = 0,07 mm/rev, a_p = 0,1 mm, wet

● Performance

Chip Control ①

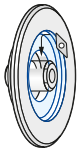
Achieves stable chip control in light cutting.


NLB Type Chipbreaker (T1500A)


Competitor's Product

Work Material:	Pipe (H240LA), Ø 30 Boring
Insert:	TPMT 110304 NLB (T1500A)
Cutting Conditions:	v_c = 200 m/min, f = 0,15 mm/rev, a_p = 0,5 mm, wet

Chip Control ②


Doubles the tool life by improving chip control and reducing blemishes on machined surfaces.

NLB Type Chipbreaker (T1500A)

Competitor's Product

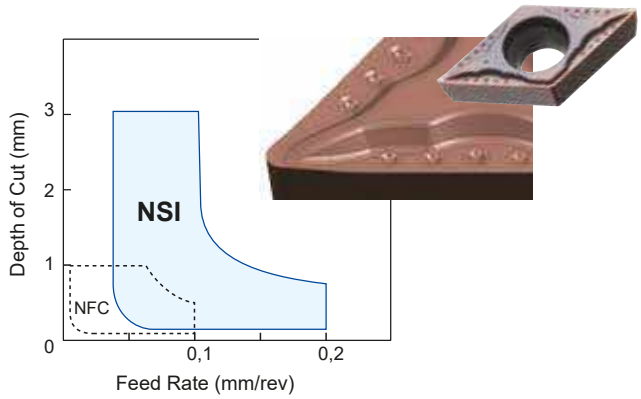
Work Material:	Hub (C45)
Insert:	VBMT 160408 NLB (T1500A)
Cutting Conditions:	v_c = 240 m/min, f =0 ,25–0,28 mm/rev, a_p = 0,6 mm, wet

(M)NSI Type

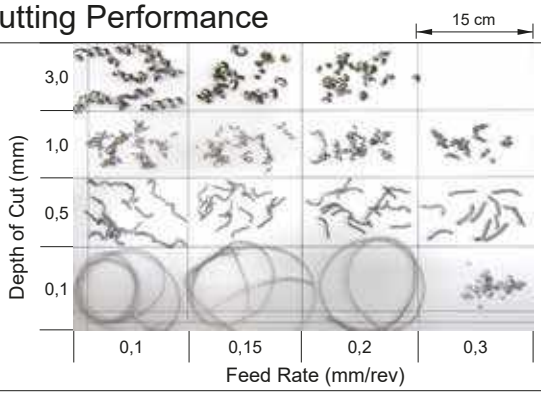
Nose radius with minus tolerance (**M**)

Example: DCGT 11T304**M** NSI

■ Application Range



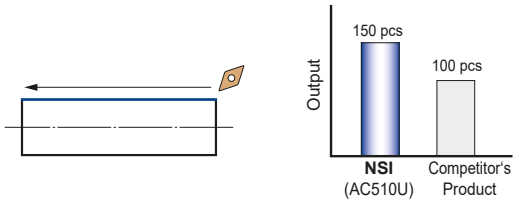
■ Cutting Performance



Work Material: X5CrNiMo17122
Insert: DCGT11T304M NSI, Cutting Conditions: v_c = 100m/min

■ Application Examples

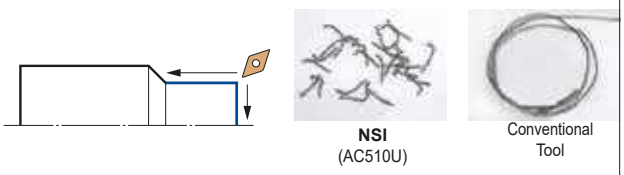
Inconel 718, machine component external turning



1,5 x higher tool life. Improved chip management.

Insert: DCGT11T302M NSI (AC510U)
Cutting Conditions: v_c = 35 m/min, f = 0,08 mm/rev, a_p = 0,8 mm, wet

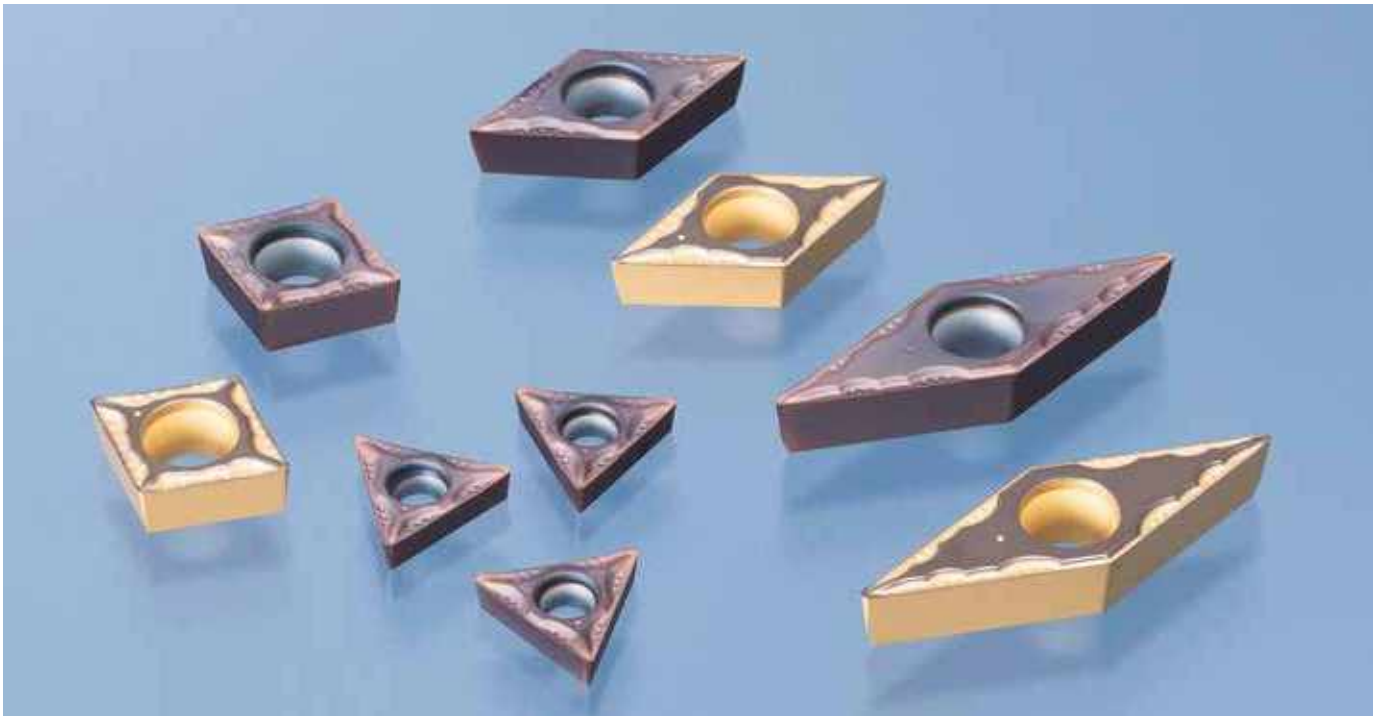
X5CrNi1810, Shaft component external turning & facing



Improved chip management. Suppressing cutting edge adhesion to ensure a stable, long tool life.

Insert: DCGT11T304M NSI (AC520U)
Cutting Conditions: v_c = 100 m/min, f = 0,08 mm/rev, a_p = 0,5 mm, wet

– Sharp designed cutting edge with low-cutting force
– Better chip control in wide range DOC for bar feeder machine
– Combination of high rake edge design and G-class precision offers superior cutting performance
– Suitable for medical parts and high precision machining



Chipbreaker Comparison

■ Negative Type

Class	Application	Sumitomo Electric	Mitsubishi	Tungaloy	Kyocera	Mitsub.-Hitachi	Sandvik	Kennametal	SECO Tools	WALTER	ISCAR
P	Fine Finishing	**FA**	FH	TF	GP		QF	FF	FF1		SF
		FL, FB	FS,FY	NS,ZF	XP,XF,VF	FE			FF2	FP5	
	Finishing	**LU, FE**	SA,SY	NM, SS	XQ,CQ,PP	BE	LC	FN		NF3	
		SU	SH	TS,TSF,11	HQ	CE,B,BH	XF,MF	CT	MF2		NF,TF
	Wiper Edge	**LUW**		AFW, FW	WP		WL,WP		W-FF2		
		SEW	SW	ASW, SW	WQ		WF,WMX	FW	W-MF2	NF	WF
	Finishing to Light Cut	**SE, SX**	LP	AS,ZM,27	CJ,XS	AB,CT	PF,KF	LF, 33		MP3,NS6	F3P, TF
	Medium Cut	**GU** □UG□	MA,MV	TM	HS,PS	AH	XM,QM	P,MG	M3		GN, HT
		GE, UX	MH,MP	DM,AM	CS,GS,PQ,PT	AE,AY	PM,SM,KM	MN, MP1		MP5,NM4,NM6	RF, LF
	Wiper Edge	**GUW**	MW				WM	MW, RW	W-M3	NM	WG
	Roughing	**MU, ME**	GH, RP	TH, S	HT,GT,PH	RE,AR	PR,XMR,KR	RP	M5,MR7	NM7,NM9,RP5	M3P,NR
		MX	HAS,MT	CH				RN	MR6		
	Heavy Cut	**HG**	HA,HZ,HX,HBS	THS,TRS	PX,HX	TE,UE	QR	RM,MR	R4,R5,R6	NR6,NRF	NM
		HP	HH,HXD	65			HR,SR	RH	R7	NR8	TNM
		HU, HW	HV			H					
		HF	HCS	TUS		HX,HE	MR		RR9	NRR	R3P
M	Finishing	**SU, EF**	LM,SH	SS	MQ,GU	SE,MP	MF	FP,FS,LF	MF2	NF4	
	Light to Medium Cut	**EX, EG**	GM,MS	SF,SA	MS, MU	PV	23	MS	MF1,M1		TF,VL
		GU	MM	SM	HU	DE	MM, SMR	MP	MF3,M3	NM4	M3M,PP
	Roughing	**HM**	ES,1M,2M	S					MF4, MF5	NR4, RM5	
		EM, MU	GH,RM	SH	TK		MR, MRR		M5,MR3		MR
S	Finishing	**EF**	LS,FJ	HRF			SF, SGF			NFT	
	Medium Cut	**EG, EX**	MJ,MS	HMM,SA			SM, SMC			NMT	
	Roughing	**MU**	GJ,RS				SMR			NRT	
K	Light Cut	**UZ**	LK,MA,MK,SW	CM,CF	Standard	V,VA	KF	UN	M5	NM5	GN
	Medium Cut	**GZ** □UX□	GH,Standard	Standard,CH,33	ZS,GC	Y,RE	KM,KR		MR7	RK5, RK7	
H	Finishing	FV, GH									
	Light Cut	LV									
	Carburized Layer Removal	SV									

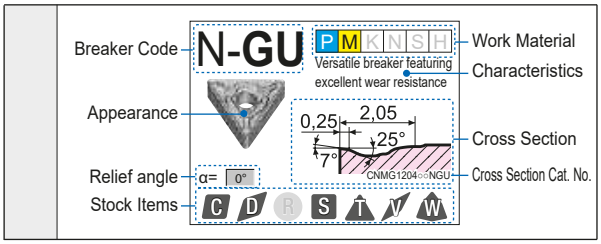
■ Positive Type

Class	Application	Sumitomo Electric	Mitsubishi	Tungaloy	Kyocera	Mitsub.-Hitachi	Sandvik	Kennametal	SECO Tools	WALTER	ISCAR
P	Finishing	**FC**	FJ,AM	01, JRP,JTS	CF,GF,VF		UM		GT-F1	FM4	
		FB, LU □FP, FK□	FP,FM,FV,SQ	PSF,PF,23	GP,XP,MQ,PP	JQ,MP	PF,UF,MF,KF	11,UF,FP	FF1	PF4	PF
	Wiper Edge	**LUW**	SW				WF	FW	W-F1	PF	WF
M		**SDW**					WK,WM	MW	W-F2		WG
	Finishing to Light Cut	**SI**	SMG	JS	CK						
K	Light Cut	**LB, SU** (SK, SF□	LP,LM,SV,MQ	PSS,PS,24	HQ,XQ,GK	JE	PM,UM,MM,PM	LF	F1	MP4,MM4,FK6	SM,14
		SC			GQ,SK			MP	MF2		
	Medium Cut	**MU**	MV,MM,MK	PM			PR,UR,MR,KR	MF	F2,M3,M5	PM5,RP4,RM4	19
N	Finishing	**AG**	AZ	AL,PP	AH		AL	HP	AL	PM2	AS,AF
	Finishing to Light Cut	**LD, GD**									
H	Finishing	**FV**									
	Light Cut	**LV**									

Chipbreaker Application

Bumpy Breaker | Standard Breaker | Handed Breaker
Break Master (CBN/PCD) | For Chamfering

Negative Type — Finishing to Medium Cutting



Fine Finishing

N-FB — P M K N S H
Better chipcontrol under low feed conditions with sharp edge shape.
0,80 | 27° | α= 0° | CNMG1204○○NFB
C D R S T V W

N-FA — P M K N S H
Profile breaker perfect for fine finishing
1,0 | 20° | α= 0° | CNMG1204○○NFA
C D R S T V W

N-FL — P M K N S H
Optimal breaker for chip management on iron sheeting
1,0 | 10° | α= 0° | CNMG1204○○NFL
C D R S T V W

N-FE — P M K N S H
Good chipcontrol from low to high feed rate
1,40 | 0,70 | 20° | α= 0° | CNMG1204○○NFE
C D R S T V W

Finishing

N-LU — P M K N S H
Effective chip management for fluctuating cut depths and copying
1,5 | 1,0 | 10° | α= 0° | CNMG1204○○NLU
C D R S T V W

N-SP — P M K N S H
Shows excellent cutting performance in finishing to light cutting
1,3 | 13° | α= 0° | CNMG1204○○NSP
C D R S T V W

N-SU — P M K N S H
Effective in high-speed fine finishing
1,3 | 13° | α= 0° | CNMG1204○○NSU
C D R S T V W

N-SE — P M K N S H
Finishing breaker reduces tool wear on rake face. Effective even for high efficiency machining.
0,1 | 1,5 | 17° | 5° | α= 0° | CNMG1204○○NSE
C D R S T V W

N-EF — P M K N S H
Chipbreaker for exotic alloy finishing with excellent chip management
1,2 | 20° | α= 0° | CNMG1204○○NEF
C D R S T V W

NLU-W — P M K N S H
High performance finishing breaker with wiper edge
Wiper
1,5 | 1,0 | 10° | α= 0° | CNMG1204○○NLUW
C D R S T V W

NSE-W — P M K N S H
New high feed finishing breaker with wiper edge
Wiper
0,13 | 1,9 | 17° | 5° | α= 0° | CNMG1204○○NSEW
C D R S T V W

L/R-FX — P M K N S H
Parallel breaker with superior sharp edge
1,5 | 14° | α= 0° | TNGG1604○○L/RFX
C D R S T V W

L/R-FY — P M K N S H
Wide type breaker with sharp edge
2,5 | 15° | α= 0° | TNGG1604○○L/RFY
C D R S T V W

L/R-FT — P M K N S H
Arc-shaped ground type finishing breaker
0,15 | 1,35 | α= 0° | TNGG1103○○L/RFT
C D R S T V W

Light to Medium

N-SJ — P M K N S H
Standard breaker with excellent cutting edge strength
0,18 | 1,2 | α= 0° | SNMG1204○○NSJ
C D R S T V W

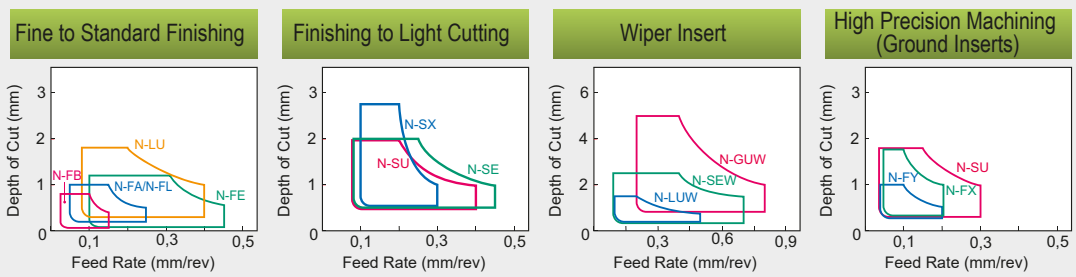
L/R-ST — P M K N S H
Arc-shaped ground type breaker for light cutting
0,15 | 1,65 | α= 0° | TNGG1603○○L/RST
C D R S T V W

N-EX — P M K N S H
Standard breaker designed especially for use with exotic alloys
2,0 | 16° | α= 0° | CNMG1204○○NEX
C D R S T V W

N-UP — P M K N S H
Double positive edge for optimal stainless steel cutting
2,1 | 10° | α= 0° | CNMG1204○○NUP
C D R S T V W

N-SX — P M K N S H
Perform copying and raise steps
1,35 | 0,2 | 15° | 3° | α= 0° | CNMG1204○○NSX
C D R S T V W

Chipbreaker Application Range (Insert IC up to Ø 12,7 mm)

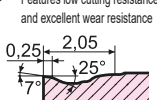


Indicated chipbreaker application ranges and shapes are representative values only. Actual values may change according to the actual catalogue number. For details, refer to stock pages (from Chapter B onward).

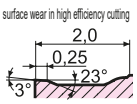
Chipbreaker Application

Negative Type — Medium to Rough Cutting

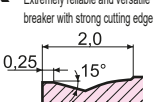
Medium

N-GU — P M K N S H
Features low cutting resistance and excellent wear resistance


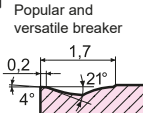
α= 0° — CNMG1204○○NGU
C D R S T V W

N-GE — P M K N S H
A versatile breaker with excellent rake surface wear in high efficiency cutting


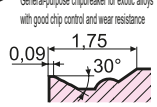
α= 0° — CNMG1204○○NGE
C D R S T V W

N-UX — P M K N S H
Extremely reliable and versatile breaker with strong cutting edge


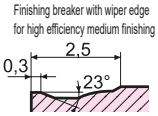
α= 0° — CNMG1204○○NUX
C D R S T V W

N-UG — P M K N S H
Popular and versatile breaker


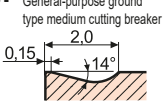
α= 0° — CNMG1204○○NUG
C D R S T V W

N-EG — P M K N S H
General-purpose chipbreaker for exotic alloys with good chip control and wear resistance


α= 0° — CNMG1204○○NEG
C D R S T V W

NGU-W — P M K N S H
Finishing breaker with wiper edge for high efficiency medium finishing


Wiper
α= 0° — CNMG1204○○NGUW
C D R S T V W

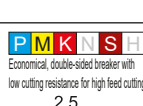
L/R-UM — P M K N S H
General-purpose ground type medium cutting breaker


α= 0° — SNMG1204○○L/RUM
C D R S T V W

Medium to Rough

N-EM — P M K N S H
Achieves excellent fracture and crater resistance

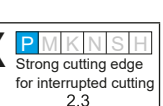

α= 0° — CNMG1204○○NEM
C D R S T V W

N-MU — P M K N S H
Economical, double-sided breaker with low cutting resistance for high feed cutting


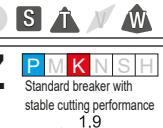
α= 0° — CNMG1204○○NMU
C D R S T V W

N-ME — P M K N S H
Chipbreaker for rough cutting that supports high-feed cutting with reduced rake face wear


α= 0° — CNMG1204○○NME
C D R S T V W

N-MX — P M K N S H
Strong cutting edge for interrupted cutting


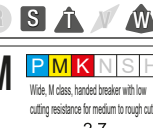
α= 0° — CNMG1204○○NMX
C D R S T V W

N-UZ — P M K N S H
Standard breaker with stable cutting performance


α= 0° — CNMG1204○○NUZ
C D R S T V W

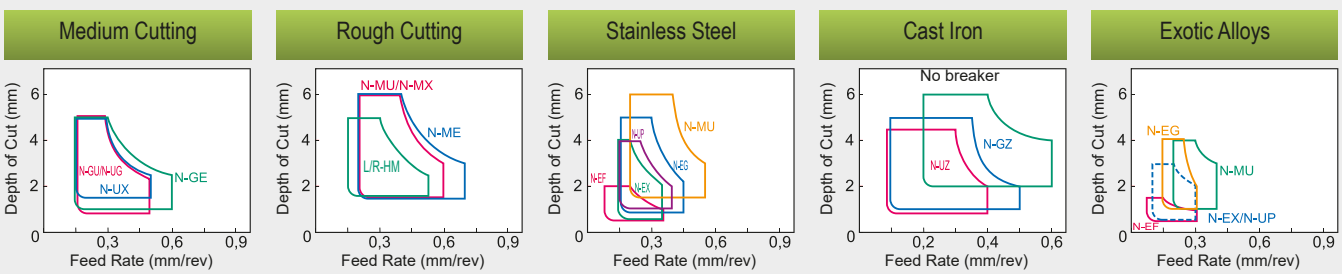
N-GZ — P M K N S H
Extremely reliable standard breaker with strong cutting edge


α= 0° — CNMG1204○○NGZ
C D R S T V W

L/R-HM — P M K N S H
Wide, M class, handed breaker with low cutting resistance for medium to rough cutting.


α= 0° — TNMG1604○○L/RHM
C D R S T V W

Chipbreaker Application Range (Insert IC up to Ø 12,7 mm)



Indicated chipbreaker application ranges and shapes are representative values only. Actual values may change according to the actual catalogue number. For details, refer to stock pages (from Chapter B onward).

Chipbreaker Application

Bumpy Breaker | Standard Breaker | Handed Breaker
SUMIBORON Break Master | For Chamfering

Negative Type — Rough Cutting

Rough to Heavy

N-HG — P M K N S H
Excellent chip management for heavy cutting
0,4 | 22° | α= 0° | CNMM1606○○NHG
C D R S T W

N-MP — P M K N S H
Single-sided breaker with low cutting resistance for rough cutting
0,3 | 22° | α= 0° | CNMM1606○○NMP
C D R S T W

N-HP — P M K N S H
Strongest cutting edge for heavy cutting
0,3~0,6 | 22° | α= 0° | CNMM1606○○NHP
C D R S T W

N-HU — P M K N S H
Strong edges and excellent chip management for heavy cutting
3,2 | 0,6 | 0,25 | -15° | 16° | α= 0° | SNMM2507○○NHU
C D R S T W

N-HW — P M K N S H
Two step breaker with excellent chip evacuation for heavy cutting
6,3 | 0,3 | 0,75 | 17° | -15° | α= 0° | SNMM3109○○NHW
C D R S T W

N-HF — P M K N S H
Strong edge chipbreaker for heavy cutting with excellent chip evacuation even in high-feed cutting
4,5 | 0,2 | 0,4 | 20° | 15° | α= 0° | SNMM1906○○NHF
C D R S T W

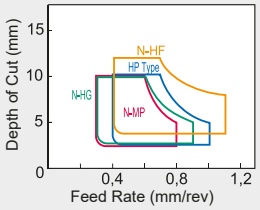
Negative Type — For Hardened Steel

Finishing

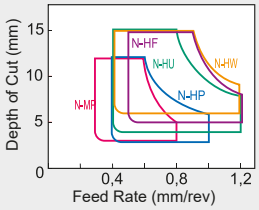
N-GH — P M K N S H
For cutting hardened steel with low cutting force and excellent chip control
3,5 | 3° | α= 0° | CNGG1204○○NGH
C D R S T W

Chipbreaker Application Range

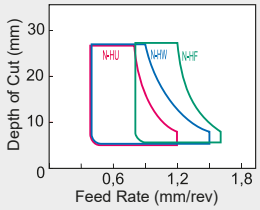
Rough to Heavy (IC Ø15,875 to 19,05 mm)



Rough to Heavy (IC Ø25,4 mm)



Rough to Heavy (IC Ø31 mm)



Indicated chipbreaker application ranges and shapes are representative values only. Actual values may change according to the actual catalogue number. For details, refer to stock pages (from Chapter B onward).

Bumpy Breaker | Standard Breaker | Handed Breaker | Break Master (CBN/PCD)

Positive Type — Medium to Rough Cutting

Finish to Light

N-FB — P M K N S H
Finishing chipbreaker for soft steel providing excellent chip control and surface finish quality
0,5 | 20°
α= 5° 7° 11° | CCMT09T3○○NFB
C D R S T V W

N-LU — P M K N S H
Chip management significantly improved in fine finishing
0,8 | 15°
α= 5° 7° 11° | CCMT09T3○○NLU
C D R S T V W

NLU-W — P M K N S H
High performance finishing breaker with wiper edge
Wiper
1,5 | 10°
α= 7° 11° | CCMT09T3○○NLUW
C D R S T V W

N-FP — P M K N S H
Provides good chip control in fine finishing
1,40 | 10°
α= 7° | CCMT09T3○○NFP
C D R S T V W

N-FK — P M K N S H
Finishing breaker with sharp edge and good chip control
1,1
α= 11° | TPMT1604○○NFK
C D R S T V W

Light to Medium

N-LB — P M K N S H
Light-cutting breaker with sharp edge and good chip control
0,8 | 15°
α= 5° 7° 11° | CCMT09T3○○NLB
C D R S T V W

N-SU — P M K N S H
General-purpose breaker with sharp edge
1,45 | 8°
α= 7° 11° | TPMT1103○○NSU
C D R S T V W

N-US — P M K N S H
Breaker for small diameter boring bars
1,95 | 10°
α= 11° | CPMH0903○○NSU
C D R S

N-MU — P M K N S H
Long lifetime breaker with low cutting resistance
0,35 | 0,1 | 1,8 | 4° | 20°
α= 7° 11° | TPMT1604○○NMU
C D R S T

N-SF — P M K N S H
Very reliable breaker with sharp edge
0,2 | 1,6 | 14°
α= 11° | TPMT1604○○NSF
C D R S T

Positive Type — G Class with Ground Chipbreaker

Finish to Light

L/R-FW — P M K N S H
Wide dimple breaker with sharp edge
0,90 | 15° (20°)
α= 5° 11° | TPMT1102○○L/RFW
C D R S T V W

L/R-FX — P M K N S H
Parallel breaker with sharp edge
0,9 | 15°
α= 5° 7° 11° | TPGT1103○○L/RFX
C D R S T V W

L/R-FY — P M K N S H
Wide breaker with sharp edge
1,5 | 15°
α= 5° 7° 11° | TPGT1103○○L/RFY
C D R S T V W

L/R-FYS — P M K N S H
Breaker for fine cutting with sharp edge
0,5 | 15°
α= 5° 7° | CCGT04X1○○L/RFYS
C D R S T V W

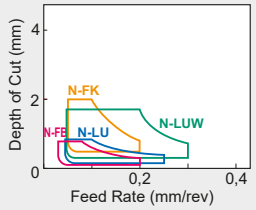
L/R-W — P M K N S H
Wide type finishing breaker
0,15 | 1,0 | 10°
α= 5° 11° | TPGR1103○○L/RW
C D R S T V W

L/R-SD — P M K N S H
Stepped parallel ground type
0,9
α= 7° 11° | TPGT1103○○L/RNSD
C D R S T V W

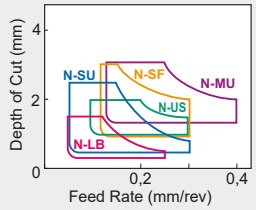
L/R-SDW — P M K N S H
Parallel ground type with high performance wiper edge
Wiper
0,9
α= 11° | TPGX1103○○L/RSDW
C D R S T V W

Chipbreaker Application Range

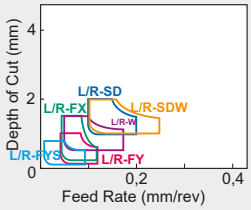
M Class Finishing to Light Cutting



M Class Light to Medium Cutting



G Class with Ground Chipbreaker



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Chipbreaker Application

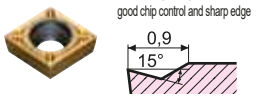
Bumpy Breaker | Standard Breaker | Handed Breaker | SUMIBORON Break Master

Positive Type — G Class

Finish to Light

N-FC* — P M K N S H

Peripheral grinding 3D breaker with good chip control and sharp edge



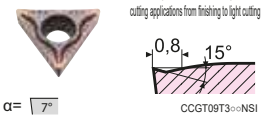
α= 7° 11°

CCGT09T3○○NFC

C D R S T V W

N-SI* — P M K N S H

Sharper-edge breaker for a wide range of cutting applications from finishing to light cutting



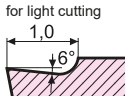
α= 7°

CCGT09T3○○NSI

C D R S T V W

N-SC* — P M K N S H

Two step breaker for light cutting



α= 7°

TCGT1103○○NSC

C D R S T V W

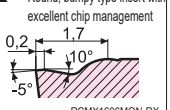
* Remarks:
N-FC, N-SI and N-SC have minus tolerance indicated by "M" after the nose radius.
Example:
DCGT 11T302 **M** NSI AC520U

Positive Type — Round Inserts

Round

N-RX — P M K N S H

Round, bumpy type insert with excellent chip management



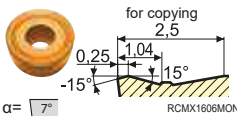
α= 7°

RCMX1606MON-RX

C D R S T V W

N-RP — P M K N S H

Standard breaker for copying



α= 7°

RCMX1606MON-RP

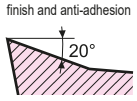
C D R S T V W

Positive Type — For Al - Alloy Machining

Finishing

N-AG — P M K N S H

Al breaker for mirror finish and anti-adhesion



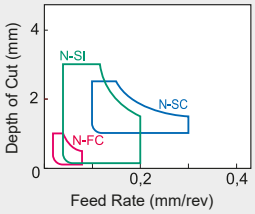
α= 7°

CCGT09T3○○NAG

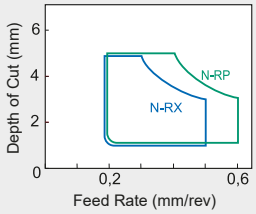
C D R S T V W

Chipbreaker Application Range

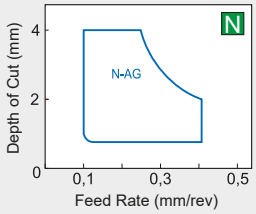
G Class Chipbreakers



Round Insers (IC up to Ø 12,7 mm)



For Aluminium Alloy Machining



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Bumpy Breaker | Standard Breaker | Handed Breaker

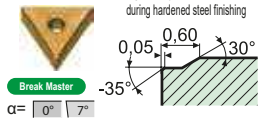
SUMIBORON Insert — CBN

Finish to Light

N-LV

P M K N S H

Significantly improved chip control during hardened steel finishing



Break Master

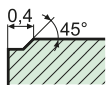
α= 0° 7°

C D R S T V W

N-FV

P M K N S H

Significantly improved chip control during hardened steel finishing



Break Master

α= 0° 7°

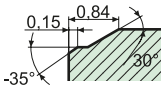
C D R S T V W

Carburized Layer Removal

N-SV

P M K N S H

Significantly improved chip management with carburized layer removal



Break Master

α= 0°

C D R S T V W

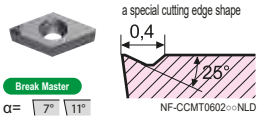
SUMIDIA Insert — PCD

Finish to Light

N-LD

P M K N S H

Ideal for finishing of Al by utilizing a special cutting edge shape



Break Master

α= 7° 11°

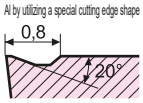
NF-CCMT0602○○NLD

C D R S T V W

N-GD

P M K N S H

Ideal for finishing to general machining of Al by utilizing a special cutting edge shape



Break Master

α= 7° 11°

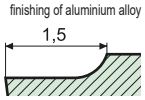
NF-CCMT0602○○NGD

C D R S T V W

L/R-DM

P M K N S H

Perfect for highspeed finishing of aluminium alloy



Break Master

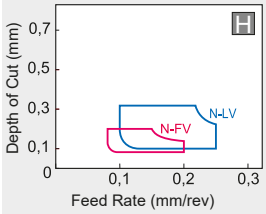
α= 7° 11°

NU-CCMT09T3○○L/R-DM

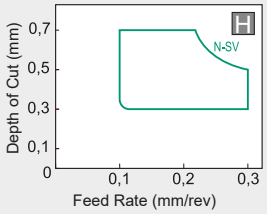
C D R S T V W

Chipbreaker Application Range

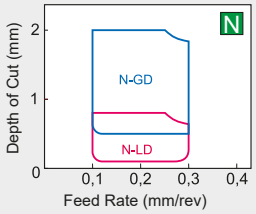
SUMIBORON (Heavy Steel Machining) (IC up to Ø 12,7 mm)



SUMIBORON (Carburized Layer Removal) (IC up to Ø 12,7 mm)



SUMIDIA (For Aluminium Alloy Machining)



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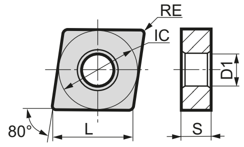
C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type — 0° Relief — With Insert Hole

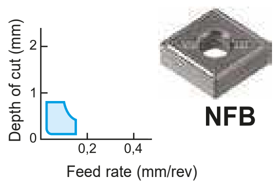


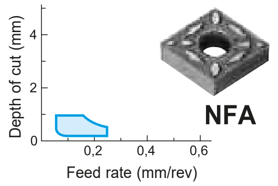
Dimensions (mm)				
CN_ _	L	IC	S	D_1
0903..	9,7	9,525	3,18	3,81
0904..	9,7	9,525	3,18	3,81
1204..	12,9	12,7	4,76	5,16

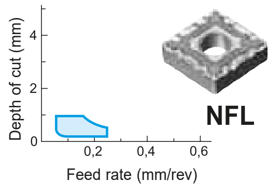
- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

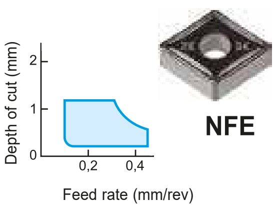
CNMG ●●●●●● ■-■■

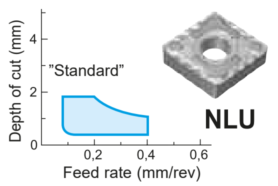
● M-Class, Double Sided Bumpy Chipbreaker

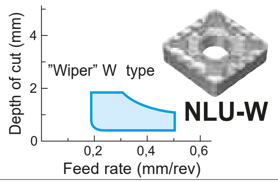


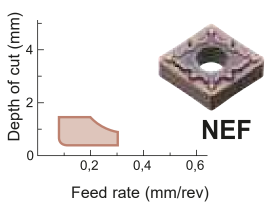












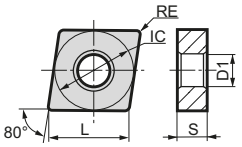
Application	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
			Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
			P	P	P	P	P	P	M	M	M	P/M	K	K	K	K	K	H	S	S	K/S	M/S	P/M	P/M	P	P	P	P	K	S	S	N
Fine Finishing	CNMG 090304 NFB	0,4									○														○	○		○				
Fine Finishing	CNMG 090308 NFB	0,8									○														○	○		○				
Fine Finishing	CNMG 090404 NFB	0,4									○														○	○		○				
Fine Finishing	CNMG 090408 NFB	0,8									○														○	○		○				
Fine Finishing	CNMG 120402 NFB	0,2									○														○	○	○	○				
Fine Finishing	CNMG 120404 NFB	0,4									○														○	○	○	○				
Fine Finishing	CNMG 120408 NFB	0,8									○														○	○	○	○				
Fine Finishing	CNMG 120402 NFA	0,2																							●	●	○	●				
Fine Finishing	CNMG 120404 NFA	0,4																							●	○	○	●				
Fine Finishing	CNMG 120408 NFA	0,8																							●	○	○	●				
Fine Finishing	CNMG 090308 NFL	0,8		○																												
Fine Finishing	CNMG 120404 NFL	0,4		○			○					○								○		▲			●	○	○	●				
Fine Finishing	CNMG 120408 NFL	0,8		○																○		▲			●	○	○	●				
Fine Finishing	CNMG 090304 NFE	0,4	○	○		▲		▲		○	○														○	○		○				
Fine Finishing	CNMG 090308 NFE	0,8	○	○		▲		▲		○	○														○	○		○				
Fine Finishing	CNMG 090404 NFE	0,4	○	○		▲		▲		○	○														○	○		○				
Fine Finishing	CNMG 090408 NFE	0,8	○	○		▲		▲		○	○														○	○		○				
Fine Finishing	CNMG 120402 NFE	0,2	○	○	○	▲		▲		○	○														○	○	○	○				
Fine Finishing	CNMG 120404 NFE	0,4	○	○	○	▲		▲		○	○														○	○	○	○				
Fine Finishing	CNMG 120408 NFE	0,8	○	○	○	▲		▲		○	○														○	○	○	○				
Fine Finishing	CNMG 120412 NFE	1,2	○	○	○	▲		▲		○	○														○	○	○	○				
Finishing	CNMG 090304 NLU	0,4	○	○		▲	▲			○															○	○		○				
Finishing	CNMG 090308 NLU	0,8	○	○		▲	▲			○		○													○	○		○				
Finishing	CNMG 120402 NLU	0,2								○		○													○	○	○	○				
Finishing	CNMG 120404 NLU	0,4	●	●	○	▲	▲			○		○													●	○	○	○				
Finishing	CNMG 120408 NLU	0,8	●	●	○	▲	▲	▲		○		○													●	●	○	○				
Finishing	CNMG 120412 NLU	1,2	●	●	○	▲	▲			○															●	○	○					
Finishing	CNMG 120404 NLU-W	0,4	●	●		▲	▲		●	○		●				▲	▲								●	●						
Finishing	CNMG 120408 NLU-W	0,8	●	●		▲	▲		●	○		●				▲	▲								●	○		○				
Finishing	CNMG 120412 NLU-W	1,2	●	●		▲	▲			○						▲	▲								○			○				
Finishing	CNMG 090404 NEF	0,4							○	○	○																					
Finishing	CNMG 090408 NEF	0,8							○	○	○																					
Finishing	CNMG 120404 NEF	0,4	○	●	○				●	●	●	○							●	●	▲	▲								●	●	
Finishing	CNMG 120408 NEF	0,8	○	●	○				●	●	●	○							●	●	▲	▲								○	○	
Finishing	CNMG 120412 NEF	1,2	○	●	○				○	●	●									●		▲										

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts — C, D, K, R, S, T, V, W

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief | With Insert Hole



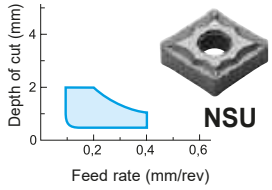
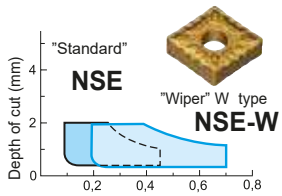
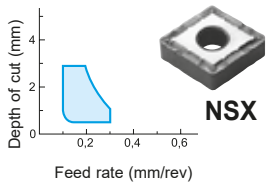
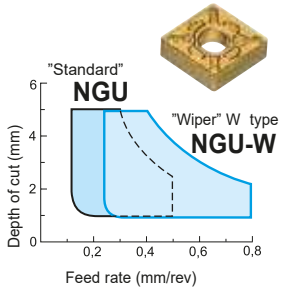
Dimensions (mm)				
CN_ _	L	IC	S	D_1
0903..	9,7	9,525	3,18	3,81
0904..	9,7	9,525	3,18	3,81
09T3..	9,7	9,525	3,97	3,81
1204..	12,9	12,7	4,46	5,16
1606..	16,1	15,875	6,35	6,35

⇨ D12, D18 D41 ⇨ E8

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMG ●●●●●● ■-■■

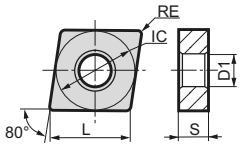
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P/M	K			H	S			P/M	Cermet Coated P				Carbide Uncoated K	S	N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NSU	CNMG 090304 NSU	0,4	○	●		▲	▲		●			●																			
		CNMG 090308 NSU	0,8	●	○		▲	▲		●			●																			
		CNMG 09T304 NSU	0,4	○	○																											
		CNMG 09T308 NSU	0,8	○	○																											
		CNMG 090404 NSU	0,4	○	○		▲	▲	▲																○		○	○				
		CNMG 090408 NSU	0,8	○	○		▲		▲																○		○	○				
		CNMG 090412 NSU	1,2	○	○		▲		▲																○		○	○				
		CNMG 120402 NSU	0,2								●	●	○						○		●		▲		○	○	○	○				
		CNMG 120404 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲	○	●	○	●	●				
		CNMG 120408 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲	○	●	○	●	●				
		CNMG 120412 NSU	1,2	●	●	○	▲	▲	▲	●	●	●	○							●	●	▲	▲		●	●	○	●				
Finishing	 NSE / NSE-W	CNMG 120404 NSE	0,4	●	●	○	▲	▲	▲																	○		○	○				
		CNMG 120408 NSE	0,8	●	●	○	▲	▲	▲																	○		○	○				
		CNMG 120412 NSE	1,2	●	●	●	▲	▲	▲																								
		CNMG 090404 NSE-W	0,4	○	○		▲		▲																								
		CNMG 090408 NSE-W	0,8	○	○		▲		▲																								
		CNMG 120404 NSE-W	0,4	●	○		▲	▲																				○				
		CNMG 120408 NSE-W	0,8	●	●		▲	▲																	○			○				
		CNMG 120412 NSE-W	1,2	○	●		▲	▲																								
Finishing	 NSX	CNMG 120404 NSX	0,4	○	○	○	▲	▲	▲																	○	○		○				
		CNMG 120408 NSX	0,8	●	●	●	▲	▲	▲																	○			○				
		CNMG 120412 NSX	1,2	●	○	○			▲																								
Medium Cut	 NGU / NGU-W	CNMG 090304 NGU	0,4	○	●			▲	▲					○	○																		
		CNMG 090308 NGU	0,8	○				▲	▲					○	○																		
		CNMG 090404 NGU	0,4		○		▲		▲																	○		○	○				
		CNMG 090408 NGU	0,8		○		▲		▲																	○		○	○				
		CNMG 090412 NGU	1,2	○	○		▲		▲					○	○											○		○	○				
		CNMG 120404 NGU	0,4	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲		○	○			○				
		CNMG 120408 NGU	0,8	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲		○	○			○				
		CNMG 120412 NGU	1,2	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲		○								
		CNMG 120416 NGU	1,6	○	●	●	▲	▲	▲					○	○																		
		CNMG 160608 NGU	0,8	●	●	○	▲	▲	▲	●	○		●	○	○																		
		CNMG 160612 NGU	1,2	●	●	●	▲	▲	▲	●	○		●	○	○																		
		CNMG 160616 NGU	1,6	●	●	○	▲	▲	▲			○	●	○	○																		
		CNMG 120408 NGU-W	0,8	●	●		▲	▲		●			●				▲	▲														
		CNMG 120412 NGU-W	1,2	●	●		▲	▲		●			●				▲	▲														
		CNMG 160612 NGU-W	1,2	○	○	○																										

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

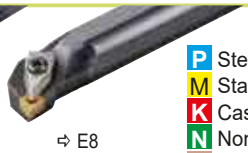
C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief / With Insert Hole



Dimensions (mm)				
CN__	L	IC	S	D_1
0903..	9,7	9,525	3,18	3,81
0904..	9,7	9,525	3,18	3,81
09T3..	9,7	9,525	3,97	3,81
1204..	12,9	12,7	4,46	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94

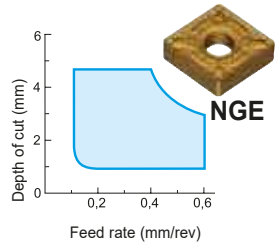
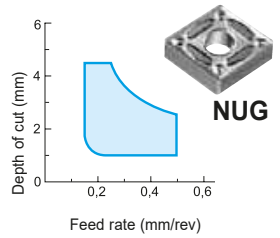
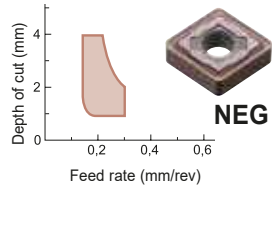
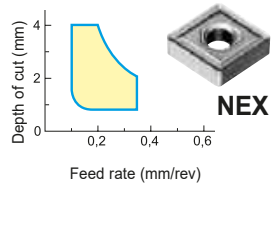

⇨ D12, D18 D41


⇨ E8

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMG ●●●●●● ■-■■

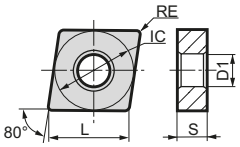
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K			Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Medium Cut	 NGE	**CNMG 120404 NGE**	0,4	●	●	●	▲	▲	▲																						
		CNMG 120408 NGE	0,8	●	●	●	▲	▲	▲																						
		CNMG 120412 NGE	1,2	●	●	●	▲	▲	▲																						
		CNMG 120416 NGE	1,6	●	●	○	▲	▲																							
		CNMG 160608 NGE	0,8	○	○	○	▲																								
		CNMG 160612 NGE	1,2	●	●	○	▲	▲	▲																						
		CNMG 160616 NGE	1,6	●	●	●	▲	▲	▲																						
		CNMG 190612 NGE	1,2	●	●	○	▲	▲	▲																						
		CNMG 190616 NGE	1,6	○	●	○	▲	▲	▲																						
Medium Cut	 NUG	**CNMG 090304 NUG**	0,4		○			▲																						
		CNMG 090308 NUG	0,8		○				▲																						
		CNMG 090404 NUG	0,4		○																										
		CNMG 090408 NUG	0,8		○			▲	▲																						
		CNMG 09T304 NUG	0,4		○																										
		CNMG 09T308 NUG	0,8		○																										
		CNMG 120404 NUG	0,4	○	●	●		▲	▲																						
		CNMG 120408 NUG	0,8	●	●	●		▲	▲																						
		CNMG 120412 NUG	1,2	●	●	●			▲																						
		CNMG 120416 NUG	1,6		○	●																									
		CNMG 160608 NUG	0,3			○																									
		CNMG 160612 NUG	1,2			○																									
		CNMG 160616 NUG	1,6	○	○	○																									
		CNMG 190608 NUG	0,8			○			▲																						
		CNMG 190612 NUG	1,2		○	●			▲																						
		CNMG 190616 NUG	1,6		○	○																									
		CNMG 190624 NUG	2,4						▲																						
Medium Cut	 NEG	**CNMG 090408 NEG**	0,8							○	○	○																			
		CNMG 090412 NEG	1,2							○	○	○																			
		CNMG 120404 NEG	0,4	○	●	○				●	●	●							○	○										●	
		CNMG 120408 NEG	0,8	○	●	○				●	●	●	●						●	●	▲	▲								●	●
		CNMG 120412 NEG	1,2	○	●	○				●	●	●	○						○	●	▲	▲								○	●
		CNMG 160608 NEG	0,8	○	●	○				○	○	○																			
		CNMG 160612 NEG	1,2	○	●	○				●	●		○						○	●	▲	▲								○	○
		CNMG 160616 NEG	1,6	○	●	○				○									○	○											
		CNMG 190612 NEG	1,2	○	○	○				●	●									○										○	○
		CNMG 190616 NEG	1,6	○	○	○				●	●		○						●	○										○	○
Medium Cut	 NEX	**CNMG 120404 NEX**	0,4							●	●	●	●						●	●	▲	▲		○							
		CNMG 120408 NEX	0,8							●	●	●	●						●	●	▲	▲		○						○	
		CNMG 120412 NEX	1,2							●	●	●	●						●	●	▲	▲									
		CNMG 160612 NEX	1,2																○	●	▲	▲									
		CNMG 190612 NEX	1,2																○	○	▲	▲									

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

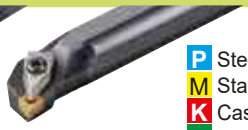
C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief | With Insert Hole



Dimensions (mm)				
CN_ _	L	IC	S	D_1
1204..	12,9	12,7	4,46	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94
2509..	25,8	25,4	9,52	9,2

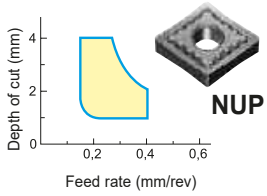
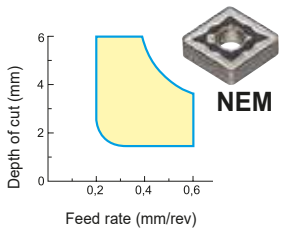

⇨ D12, D18
D41


⇨ E8

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMG ●●●●●● ■-■■

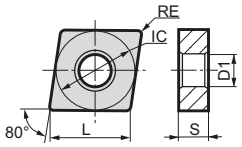
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Uncoated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Medium Cut	 NUP	**CNMG 120404 NUP**	0,4		●	●		▲	▲	●	●	●	●							●	●	▲	▲		○					○			
		CNMG 120408 NUP	0,8		●	●		▲	▲	●	●	●	●							●	●	▲	▲		○								
		CNMG 120412 NUP	1,2		●	●		▲	▲	●	●	●	●							○	○	▲	▲		○								
		CNMG 120416 NUP	1,6					▲																									
		CNMG 160612 NUP	1,2			●			▲	●			●																				
		CNMG 190612 NUP	1,2		●	●		▲	▲				●																				
Medium Cut	 NEM	**CNMG 120408 NEM**	0,8	○	●	○				●	●	●									○												
		CNMG 120412 NEM	1,2	○	●	○				●	●	●																					
		CNMG 120416 NEM	1,6	○	●	○				○	●	●																					
		CNMG 160608 NEM	0,8	○	●	○				○	○	○																					
		CNMG 160612 NEM	1,2	○	●	○				●	●	●																					
		CNMG 160616 NEM	1,6	○	●	○				●	●	●																					
		CNMG 190612 NEM	1,2	○	●	○				●	●	●																					
		CNMG 190616 NEM	1,6	○	●	○				●	●	●									○												
		CNMG 190624 NEM	2,4	○	○	○				○		○																					
		CNMG 250924 NEM	2,4	○	○	○					○																						

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

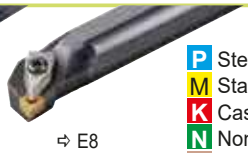
C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief / With Insert Hole



Dimensions (mm)				
CN__	L	IC	S	D_1
0903..	9,7	9,525	3,18	3,81
1204..	12,9	12,7	4,76	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94

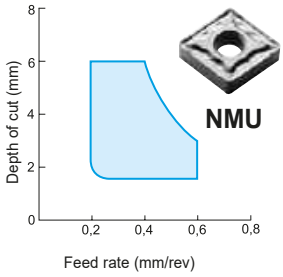
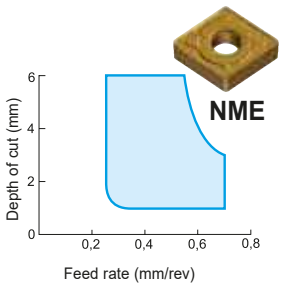
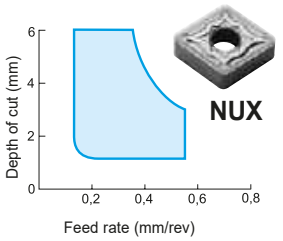
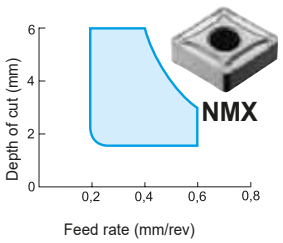

⇨ D12, D18
D41


⇨ E8

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMG ●●●●●● ■-■■

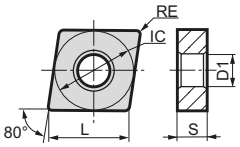
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P/M	K			H	S	K/S	M/S	P/M	Cermet Coated P				Carbide Uncoated K	S	N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing	 NMU	**CNMG 120408 NMU**	0,8	●	●	●	▲	▲	▲	●	●		●							●	●	▲	▲		○					○		
		CNMG 120412 NMU	1,2	●	●	●	▲	▲	▲	●	●		●							●	●	▲	▲									
		CNMG 120416 NMU	1,6	●	●	○	▲	▲	▲											○	●	▲	▲									
		CNMG 160608 NMU	0,8	●	●	●	▲	▲	▲	●	●		●																			
		CNMG 160612 NMU	1,2	●	●	●	▲	▲	▲	●	●		●							●	●	▲	▲									
		CNMG 160616 NMU	1,6	●	●	●	▲	▲	▲	●	●		●							●	●	▲	▲									
		CNMG 160624 NMU	2,4					▲																								
		CNMG 190608 NMU	0,8	○		●		▲	▲																							
		CNMG 190612 NMU	1,2	●	●	●	▲	▲	▲	●	●		●							○	●	▲	▲									
		CNMG 190616 NMU	1,6	●	●	●	▲	▲	▲	●	●		●							●	●	▲	▲									
		CNMG 190624 NMU	2,4	○	○	○		▲													○											
		CNMG 250924 NMU	2,4	○	○	●																										
Roughing	 NME	**CNMG 120408 NME**	0,8	●	●	●	▲	▲	▲					○	○																	
		CNMG 120412 NME	1,2	●	●	●	▲	▲	▲					○	○																	
		CNMG 120416 NME	1,6	●	●	○	▲	▲						○	○																	
		CNMG 160608 NME	0,8	○	●	○	▲	▲	▲					○	○																	
		CNMG 160612 NME	1,2	●	●	●	▲	▲	▲					○	○																	
		CNMG 160616 NME	1,6	●	●	○	▲	▲	▲					○	○																	
		CNMG 190612 NME	1,2	○	○	○	▲	▲						○	○																	
		CNMG 190616 NME	1,6	●	●	●	▲	▲	▲					○	○																	
		CNMG 190624 NME	2,4	○	○	○								○	○																	
		CNMG 250924 NME	2,4	○	○	○								○	○																	
Roughing	 NUX	**CNMG 090304 NUX**	0,4						▲																							
		CNMG 120404 NUX	0,4	○	●	●	▲	▲	▲																							
		CNMG 120408 NUX	0,8	●	●	●	▲	▲	▲																							
		CNMG 120412 NUX	1,2	●	●	●	▲	▲	▲																							
		CNMG 120416 NUX	1,6	●	●	○	▲	▲	▲																							
		CNMG 160608 NUX	0,8	●	○	○	▲	▲	▲																							
		CNMG 160612 NUX	1,2	●	●	●	▲	▲	▲							●																
		CNMG 160616 NUX	1,6	●	●	○	▲	▲	▲							●																
		CNMG 190608 NUX	0,8			●			▲																							
		CNMG 190612 NUX	1,2	○	○	○	▲	▲	▲																							
		CNMG 190616 NUX	1,6	○	●	○	▲	▲	▲																							
Roughing	 NMX	**CNMG 120408 NMX**	0,8		●	●		▲	▲																							
		CNMG 120412 NMX	1,2		●	●		▲	▲																							
		CNMG 120416 NMX	1,6		●	●		▲	▲																							
		CNMG 160608 NMX	0,8		●			▲																							
		CNMG 160612 NMX	1,2		●	●		▲	▲																							
		CNMG 160616 NMX	1,6		●	●		▲	▲																							
		CNMG 190612 NMX	1,2		●	●		▲	▲																							
		CNMG 190616 NMX	1,6		●	●		▲	▲																							

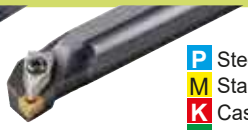
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief | With Insert Hole



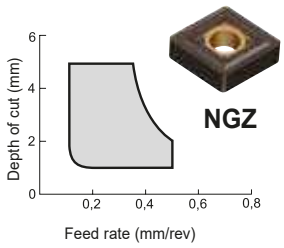
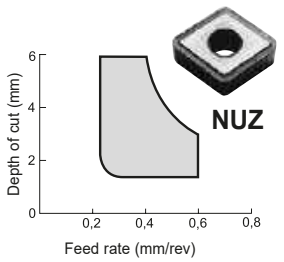
Dimensions (mm)				
CN_ _	L	IC	S	D_1
0904..	9,7	9,525	3,18	3,81
1204..	12,9	12,7	4,76	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94



- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMG ●●●●●● ■-■■

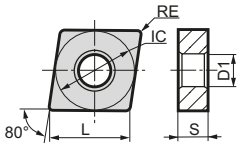
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing		**CNMG 090408 NGZ**	0,8											○	○	○	▲	▲														
		CNMG 090412 NGZ	1,2											○	○	○	▲	▲														
		CNMG 120404 NGZ	0,4											●	●	○	▲	▲														
		CNMG 120408 NGZ	0,8											●	●	●	▲	▲														
		CNMG 120412 NGZ	1,2											●	●	●	▲	▲														
		CNMG 120416 NGZ	1,6											●	●	●	▲	▲														
		CNMG 160608 NGZ	0,8											○	○			▲														
		CNMG 160612 NGZ	1,2											○	○	○	▲	▲														
		CNMG 160616 NGZ	1,6											○	●		▲	▲														
		CNMG 190612 NGZ	1,2											○	○		▲	▲														
		CNMG 190616 NGZ	1,6											○	○	○	▲	▲														
Roughing		**CNMG 120404 NUZ**	0,4		○			▲						●	○	○	▲	▲														
		CNMG 120408 NUZ	0,8		○	○		▲						●	●	●	▲	▲												○		
		CNMG 120412 NUZ	1,2		○	○								●	●	●	▲	▲														
		CNMG 120416 NUZ	1,6		○									○	○	●	▲	▲														
		CNMG 160608 NUZ	0,8		○	○												▲														
		CNMG 160612 NUZ	1,2		○	○								●	●	●	▲	▲														
		CNMG 160616 NUZ	1,6		○	○		▲						●	●	●	▲	▲														
		CNMG 190608 NUZ	0,8		○	○		▲	▲																							
		CNMG 190612 NUZ	1,2		○	○								○	○	●	▲	▲														
		CNMG 190616 NUZ	1,6		○	○		▲						○	●	●	▲	▲														

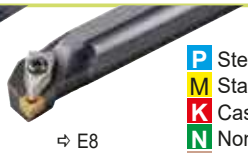
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 0° Relief | With Insert Hole



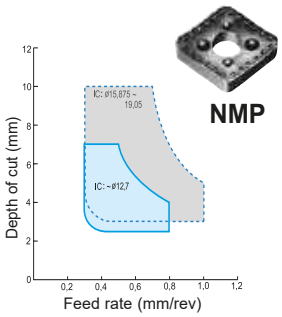
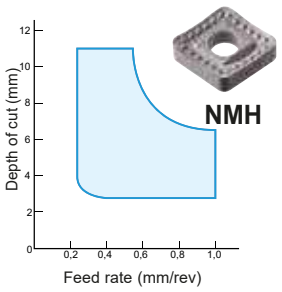
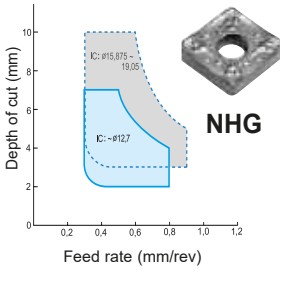
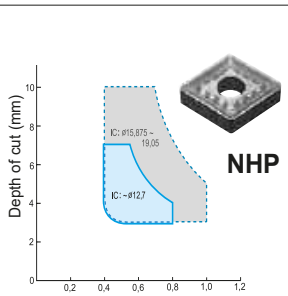
Dimensions (mm)				
CN__	L	IC	S	D_1
1204..	12,9	12,7	4,76	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94
2507..	25,8	25,4	7,94	9,2
2509..	25,8	25,4	9,52	9,2



- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CNMM ●●●●●● ■-■■

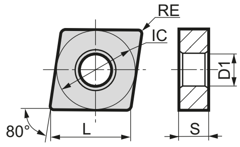
● M-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P/M	K				H	S	K/S	M/S	P/M	Cermet Coated P				Cermet Uncoated K	S	N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Heavy Roughing	 NMP	**CNMM 120408 NMP**	0,8	●	●	●	▲	▲	▲		●	●	●							○		▲										
		CNMM 120412 NMP	1,2	●	●	●	▲	▲	▲		●		●							○		▲										
		CNMM 120416 NMP	1,6	○	●	●	▲	▲	▲		●		○																			
		CNMM 160608 NMP	0,8		●	●		▲	▲		○		●							○		▲										
		CNMM 160612 NMP	1,2	●	●	●	▲	▲	▲		○		●							○		▲										
		CNMM 160616 NMP	1,6	●	●	●	▲	▲	▲		○		●							○		▲										
		CNMM 160624 NMP	2,4		●			▲																								
		CNMM 190608 NMP	0,8		●	●		▲	▲		○									○		▲										
		CNMM 190612 NMP	1,2	○	●	●		▲	▲		●		●							○		▲										
		CNMM 190616 NMP	1,6	●	●	●	▲	▲	▲		●		●							○		▲										
		CNMM 190624 NMP	2,4	○	●	●	▲	▲	▲		○		○																			
		CNMM 250724 NMP	2,4		○			▲																								
		CNMM 250924 NMP	2,4		○			▲																								
Heavy Roughing	 NMH	**CNMM 160612 NMH**	1,2	●	●	●		▲	▲		●																					
		CNMM 160616 NMH	1,6	●	●	●		▲	▲		●																					
		CNMM 190612 NMH	1,2	●	●	●		▲	▲		●																					
		CNMM 190616 NMH	1,6	●	●	●		▲	▲		●																					
		CNMM 190624 NMH	2,4	●	●	●		▲	▲																							
		CNMM 250924 NMH	2,4		●																											
Heavy Roughing	 NHG	**CNMM 120408 NHG**	0,8	●	●	●	▲	▲	▲				●																			
		CNMM 120412 NHG	1,2	●	●	●	▲	▲	▲				○																			
		CNMM 120416 NHG	1,6		○		▲	▲					●																			
		CNMM 160608 NHG	0,8	●			▲						●																			
		CNMM 160612 NHG	1,2	●	●	●	▲	▲	▲				●																			
		CNMM 160616 NHG	1,6	●	●	●	▲	▲	▲				●																			
		CNMM 160624 NHG	2,4		●			▲																								
		CNMM 190612 NHG	1,2	●	●	●	▲	▲	▲				○																			
		CNMM 190616 NHG	1,6	●	●	●	▲	▲	▲				●																			
		CNMM 190624 NHG	2,4	●	●	●	▲	▲	▲				○																			
Heavy Roughing	 NHP	**CNMM 120408 NHP**	0,8		●	●		▲	▲																							
		CNMM 120412 NHP	1,2		●	●		▲	▲																							
		CNMM 120416 NHP	1,6		○	○																										
		CNMM 160608 NHP	0,8		○	●		▲	▲																							
		CNMM 160612 NHP	1,2		○	●			▲																							
		CNMM 160616 NHP	1,6		●	●		▲	▲																							
		CNMM 190608 NHP	0,8		○	●		▲	▲				○																			
		CNMM 190612 NHP	1,2		●	●		▲	▲				○																			
		CNMM 190616 NHP	1,6		●	●		▲	▲				○																			
		CNMM 190624 NHP	2,4		●	●		▲	▲				○																			

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type — 0° Relief — With Insert Hole



Dimensions (mm)				
CN_ _	L	IC	S	D_1
1906..	19,3	19,05	6,35	7,94
2509..	25,8	25,4	9,52	9,2

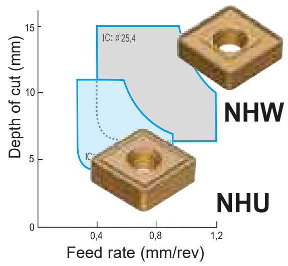
- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

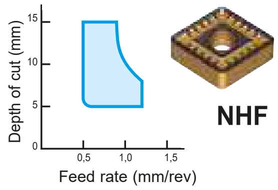
CNMM ●●●●●● ■-■■

● M-Class   One Sided Bumpy Chipbreaker

Grades: Carbide Coated — P: AC8015P, AC8025P, AC8035P, AC810P, AC820P, AC830P; M: AC6020M, AC6030M, AC6040M; P/M: AC630M; K: AC4010K, AC4015K, AC420K, AC405K, AC415K; H: AC503U; S: AC5015S, AC5025S; K/S: AC510U; M/S: AC520U; AC1030U; P/M: AC530U. Cermet (Coated / Uncoated) — P: T1500Z, T3000Z, T1000A, T1500A. Carbide Uncoated — K: G10E; S: EH510, EH520; N: H1.

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Heavy Roughing	NHU	**CNMM 190616 NHU**	1,6				▲		▲				●																				
	NHU	**CNMM 190624 NHU**	2,4					▲																									
	NHU	**CNMM 250924 NHU**	2,4				▲	▲					●																				
	NHW	**CNMM 250924 NHW**	2,4						▲				●																				
Heavy Roughing	NHF	**CNMM 190616 NHF**	1,6		○	○		▲	▲																								
	NHF	**CNMM 190624 NHF**	2,4		○	○		▲	▲																								
	NHF	**CNMM 250924 NHF**	2,4		○	○		▲	▲																								
	NHF	**CNMM 250932 NHF**	3,2		○	○		▲	▲																								

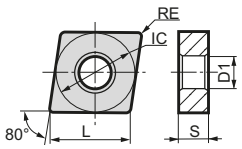




● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

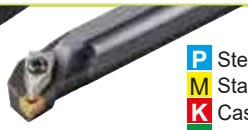
Neg. Inserts — C D K R S T V W

80° Diamond Type | 0° Relief | With Insert Hole



Dimensions (mm)				
CN__	L	IC	S	D_1
1204..	12,9	12,7	4,76	5,16
1606..	16,1	15,875	6,35	6,35
1906..	19,3	19,05	6,35	7,94

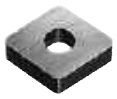
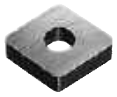

⇨ D12, D18


⇨ E8

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

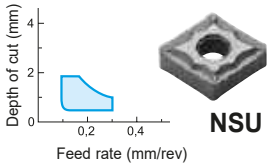
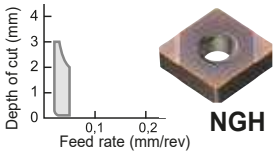
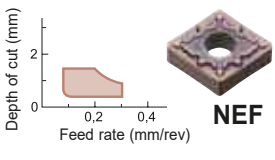
CNMA / CNGA / CNMX

● Flat and One Side Handed Inserts

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K					Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P			Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing		**CNMA 120404**	0,4											○	○	●	▲	▲											●			
		CNMA 120408	0,8											●	●	●	▲	▲											●			
		CNMA 120412	1,2											●	●	●	▲	▲														
		CNMA 120416	1,6											●	●	●	▲	▲														
		CNMA 160608	0,8											○	○			▲														
		CNMA 160612	1,2											○	●	●	▲	▲														
		CNMA 160616	1,6											●	●	●	▲	▲														
		CNMA 190612	1,2											○	●	●	▲	▲														
		CNMA 190616	1,6											○	●	●	▲	▲														
Medium Cut		**CNGA 120402**	0,2																○													
		CNGA 120404	0,4																○													
		CNGA 120408	0,8																○													
Heavy Roughing		**CNMX 120408 L**	0,8		●			▲																								
		**CNMX 120408 R**	0,8		●			▲																								

CNGG ●●●●●● ■-■■

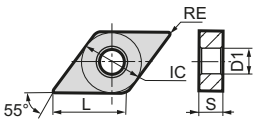
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K					Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P			Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NSU	**CNGG 120402 NSU**	0,2																	○	○					○	○	○	○				
		CNGG 120404 NSU	0,4																	○	○					○	○	○	○				
		CNGG 120408 NSU	0,8																	○	○					○	○	○	○				
Finishing	 NGH	**CNGG 120402 NGH**	0,2																○													
		CNGG 120404 NGH	0,4																○													
		CNGG 120408 NGH	0,8																○													
Finishing	 NEF	**CNGG 120402 NEF**	0,2										○							○										○		
		CNGG 120404 NEF	0,4										○							○										○		
		CNGG 120408 NEF	0,8																														

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief | With Insert Hole



Dimensions (mm)				
DN_ _	L	IC	S	D_1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16


⇨ D13, D19 D41


⇨ E9

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

DNMG ●●●●●● ■-■■

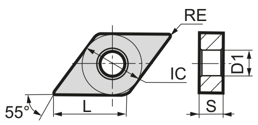
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P/M	Carbide Coated M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC630M	AC6020M	AC4010K	AC503U	AC5015S	AC510U	AC520U	AC1030U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				AC8025P	AC6030M	AC6030M	AC4015K	AC420K	AC5025S			AC530U								
				AC8035P	AC6040M	AC6040M		AC405K												
				AC810P				AC415K												
				AC820P																
				AC830P																
Fine Finishing	NFB	DNMG 110404 NFB	0,4										○	○		○				
		DNMG 110408 NFB	0,8										○	○		○				
		DNMG 150404 NFB	0,4										○	○	○	○				
		DNMG 150408 NFB	0,8										○	○	○	○				
		DNMG 150604 NFB	0,4										○	○	○	○				
		DNMG 150608 NFB	0,8										○	○	○	○				
Fine Finishing	NFA	DNMG 150404 NFA	0,4										○	○	○	○				
		DNMG 150408 NFA	0,8										○	○	○	○				
		DNMG 150604 NFA	0,4										●		●	●				
		DNMG 150608 NFA	0,8										●		○	●				
Fine Finishing	NFL	DNMG 150404 NFL	0,4		○		▲						○	○	○	○				
		DNMG 150408 NFL	0,8		○		▲						○	○	○	○				
		DNMG 150412 NFL	1,2		○															
		DNMG 150604 NFL	0,4				▲						●	●						
		DNMG 150608 NFL	0,8				▲						●	●						
Fine Finishing	NFE	DNMG 110404 NFE	0,4	○	○	○	▲		▲				○	○		○				
		DNMG 110408 NFE	0,8	○	○	○	▲		▲				○	○		○				
		DNMG 110412 NFE	1,2	○	○	○	▲		▲				○	○		○				
		DNMG 150402 NFE	0,2	○	○	○	▲		▲				○	○	○	○				
		DNMG 150404 NFE	0,4	○	○	○	▲		▲				○	○	○	○				
		DNMG 150408 NFE	0,8	○	○	○	▲		▲				○	○	○	○				
		DNMG 150412 NFE	1,2	○	○	○	▲		▲				○	○	○	○				
		DNMG 150602 NFE	0,2	○	○	○	▲		▲				○	○	○	○				
		DNMG 150604 NFE	0,4	○	○	○	▲		▲				○	○	○	○				
		DNMG 150608 NFE	0,8	○	○	○	▲		▲				○	○	○	○				
		DNMG 150612 NFE	1,2	○	○	○	▲		▲				○	○	○	○				
Finishing	NLU	DNMG 110404 NLU	0,4	●	●		▲		▲				●			○				
		DNMG 110408 NLU	0,8	●	○		▲		▲				●			○				
		DNMG 150402 NLU	0,2	○	○		▲		▲				○	○	○	○				
		DNMG 150404 NLU	0,4	○	○	○	▲		▲			○	○	○	○	○				
		DNMG 150408 NLU	0,8	○	○	○	▲		▲			○	○	○	○	○				
		DNMG 150412 NLU	1,2	○	○	○	▲		▲			○	○			○				
		DNMG 150604 NLU	0,4	●	●		▲		▲				●							
		DNMG 150608 NLU	0,8	●	●		▲		▲				●							
		DNMG 150612 NLU	1,2	●	●		▲		▲				●							

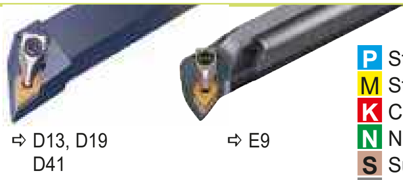
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief | With Insert Hole



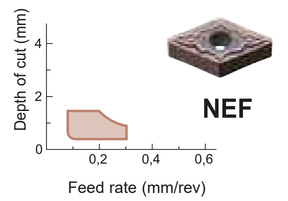
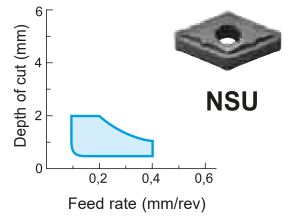
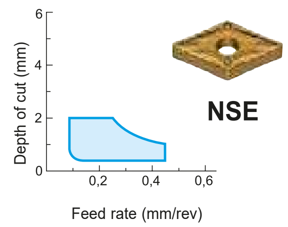
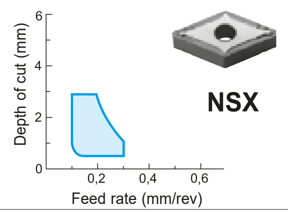
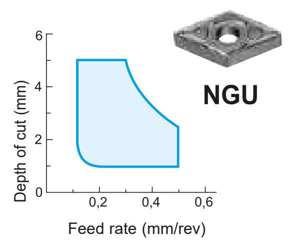
Dimensions (mm)				
DN_ _	L	IC	S	D1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16



- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

DNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S		P/M	P				K	S		N
Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing		DNMG 110404 NEF	0,4	○	●	○				●	●	●									○		▲										
		DNMG 110408 NEF	0,8	○	●	○				●	●	●									○		▲										
		DNMG 110412 NEF	1,2	○	○	○				○	●	●									○		▲										
		DNMG 150404 NEF	0,4	○	○	○				○	○	○	○							○	○	▲	▲								○	○	
		DNMG 150408 NEF	0,8	○	○	○				○	○	○	○							○	○	▲	▲								○	○	
		DNMG 150412 NEF	1,2	○	○	○				○	○										○												
		DNMG 150604 NEF	0,4	○	●	○				●	●	●	○							●	●	▲	▲								○	○	
		DNMG 150608 NEF	0,8	○	●	○				●	●	●	○							●	●	▲	▲								○	○	
		DNMG 150612 NEF	1,2	○	●	○				●	●	○								●													
Finishing		DNMG 110404 NSU	0,4	●	●	○	▲	▲		●	○		●							●	●	▲	▲										
		DNMG 110408 NSU	0,8	●	●	○	▲	▲	▲	●	○		●							●	●	▲	▲										
		DNMG 110412 NSU	1,2	○	○	○																											
		DNMG 150402 NSU	0,2								○	○	○								○		▲		○	○	○	○	○				
		DNMG 150404 NSU	0,4	○	○	○	▲	▲	▲		○	○	○							○	○		▲		○	○	○	○					
		DNMG 150408 NSU	0,8	○	○	○	▲	▲	▲		○	○	○							○	○	▲	▲		○	○	○	○					
		DNMG 150412 NSU	1,2	○	○			▲			○		○													○	○	○	○				
		DNMG 150604 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲			●		○	●				
		DNMG 150608 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲			●		○	●				
		DNMG 150612 NSU	1,2	●	●	●	▲	▲	▲												●		▲			●		●	●				
Finishing		DNMG 110408 NSE	0,8	●	○	○	▲																										
		DNMG 150404 NSE	0,4	○	○	○	▲	▲	▲																	○		○	○				
		DNMG 150408 NSE	0,8	○	○	○	▲	▲	▲																	○		○	○				
		DNMG 150412 NSE	1,2	○	○	○	▲	▲																		○		○	○				
		DNMG 150604 NSE	0,4	●	●		▲	▲																				○					
		DNMG 150608 NSE	0,8	●	●		▲	▲																				○					
		DNMG 150612 NSE	1,2	●	●		▲	▲																									
Finishing		DNMG 150404 NSX	0,4	○	○	○	▲	▲																		○	○						
		DNMG 150408 NSX	0,8	○	○	○		▲																		○	○		○				
		DNMG 150412 NSX	1,2	○	○	○			▲																								
		DNMG 150604 NSX	0,4					▲																		○			○				
		DNMG 150608 NSX	0,8	●																						○			○				
Medium Cut		DNMG 110404 NGU	0,4	●	●	○	▲	▲	▲	●	●		○	○	○																		
		DNMG 110408 NGU	0,8	●	●	●	▲	▲	▲	●	●	○	●	○	○			▲															
		DNMG 110412 NGU	1,2	●	●	○	▲	▲		●			●	○	○			▲															
		DNMG 150404 NGU	0,4	○	○	○	▲	▲	▲	○	○	○	○	○	○						○		▲			○			○				
		DNMG 150408 NGU	0,8	○	○	○	▲	▲	▲	○	○	○	○	○	○								▲		○	○			○				
		DNMG 150412 NGU	1,2	○	○	○	▲	▲		○	○		○	○	○								▲		○	○			○				
		DNMG 150416 NGU	1,6		○									○	○																		
		DNMG 150604 NGU	0,4	●	●	●	▲	▲	▲	●	●	●	●	○	○																		
		DNMG 150608 NGU	0,8	●	●	●	▲	▲	▲	●	●	●	●	○	○																		
		DNMG 150612 NGU	1,2	●	●	○	▲	▲	▲	●	●	○	●	○	○																		
		DNMG 150616 NGU	1,6		○			▲						○	○																		

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
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K
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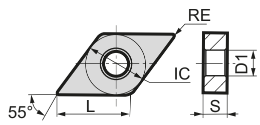
D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief | With Insert Hole



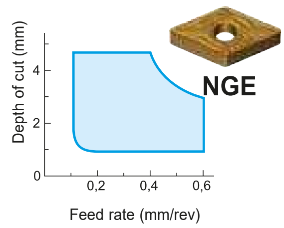
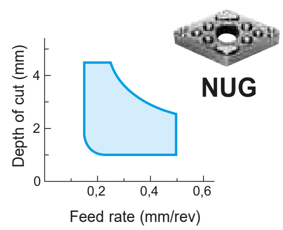
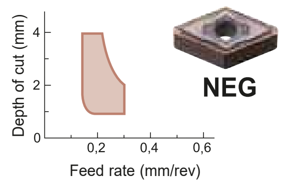
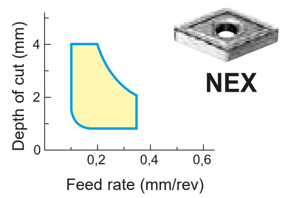
Dimensions (mm)				
DN_ _	L	IC	S	D_1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16

➪ D13, D19, D41   ➪ E9

- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

DNMG ●●●●●● ■-■■

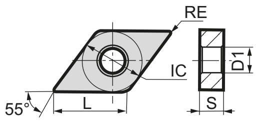
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Medium Cut	 NGE	**DNMG 110408 NGE**	0,8	○	○	○	▲	▲	▲																								
		DNMG 110412 NGE	1,2	○	○	○																											
		DNMG 150404 NGE	0,4	○	○	○	▲	▲	▲																								
		DNMG 150408 NGE	0,8	○	○	○	▲	▲	▲																								
		DNMG 150412 NGE	1,2	○	○	○			▲																								
		DNMG 150416 NGE	1,6		○																												
		DNMG 150604 NGE	0,4	●	●	○	▲	▲	▲																								
		DNMG 150608 NGE	0,8	●	●	●	▲	▲	▲																								
		DNMG 150612 NGE	1,2	●	●	●	▲	▲	▲																								
		DNMG 150616 NGE	1,6	●	●	○	▲	▲	▲																								
Medium Cut	 NUG	**DNMG 110404 NUG**	0,4		○	●			▲																								
		DNMG 110408 NUG	0,8		○	○			▲																								
		DNMG 150404 NUG	0,4			○																											
		DNMG 150408 NUG	0,8	○	○	○																											
		DNMG 150412 NUG	1,2		○	○																											
		DNMG 150604 NUG	0,4	●	○																												
		DNMG 150608 NUG	0,8	●	●	○		▲	▲																								
		DNMG 150612 NUG	1,2		○				▲																								
		DNMG 150616 NUG	1,6		○				▲																								
Medium Cut	 NEG	**DNMG 110408 NEG**	0,8	○	●	○				●	●	●									○		▲										
		DNMG 110412 NEG	1,2	○	●	○				●	●	●									○		▲										
		DNMG 150404 NEG	0,4	○	○	○				○	○	○								○												○	
		DNMG 150408 NEG	0,8	○	○	○				○	○	○	○							○	○	▲	▲								○	○	
		DNMG 150412 NEG	1,2	○	○	○				○	○	○	○							○	○	▲	▲								○	○	
		DNMG 150604 NEG	0,4	○	●	○				●	●	●	○							○	○										○		
		DNMG 150608 NEG	0,8	○	●	○				●	●	●	●							●	●	▲	▲								○	●	
		DNMG 150612 NEG	1,2	○	●	○				●	●	●	○							●	●	▲	▲								○	○	
Medium Cut	 NEX	**DNMG 110404 NEX**	0,4								●		●							●	●	▲	▲										
		DNMG 110408 NEX	0,8								●		●							●	●	▲	▲										
		DNMG 150404 NEX	0,4							○	○	○								○	○												
		DNMG 150408 NEX	0,8							○	○	○								○	○												
		DNMG 150412 NEX	1,2							○	○									○	○												
		DNMG 150604 NEX	0,4							●	●	●	●							●	●	▲	▲										
		DNMG 150608 NEX	0,8							●	●	●	●							●	●	▲	▲										
		DNMG 150612 NEX	1,2							●	●	○	○							●	●	▲	▲										

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

55° Diamond Type

0° Relief
With Insert Hole

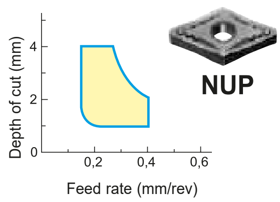
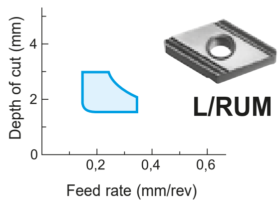
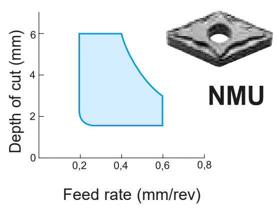
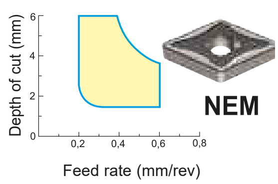
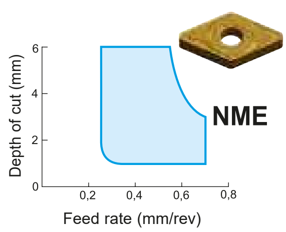


DN_ _	L	IC	S	D_1
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16

P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

DNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated M	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Uncoated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated S	Carbide Uncoated N
Medium Cut	 NUP	DNMG 150404 NUP	0,4					▲	▲		○	○	○							○	○	▲	▲										
		DNMG 150408 NUP	0,8					▲	▲		○	○	○							●	○	▲	▲										
		DNMG 150412 NUP	1,2					▲			○		○							○	○	▲	▲										
		DNMG 150604 NUP	0,4		●	●		▲	▲	●	●	●	●							●	●	▲	▲										
		DNMG 150608 NUP	0,8		●	●		▲	▲	●	●	●	●							●	●	▲	▲										
		DNMG 150612 NUP	1,2			●			▲	●			●							●	●	▲	▲										
Medium Cut	 L/RUM	DNMG 150404 LUM	0,4																							○			○				
		DNMG 150408 LUM	0,8																							○			○				
		DNMG 150404 RUM	0,4																							○			○				
		DNMG 150408 RUM	0,8																							○			○				
Roughing	 NMU	DNMG 150404 NMU	0,4				▲						○																				
		DNMG 150408 NMU	0,8	○	○	○	▲	▲	▲		○		○							○	○	▲	▲										
		DNMG 150412 NMU	1,2	○	○	○	▲	▲	▲		○									○	○	▲	▲										
		DNMG 150416 NMU	1,6		○	○		▲	▲												○		▲										
		DNMG 150608 NMU	0,8	●	●	●	▲	▲	▲	●	●		○																				
		DNMG 150612 NMU	1,2	●	●	●	▲	▲	▲	●	●		○																				
		DNMG 150616 NMU	1,6	●	●		▲	▲		●																							
Roughing	 NEM	DNMG 150408 NEM	0,8	○	○	○				○	○	○																					
		DNMG 150412 NEM	1,2	○	○	○				○	○	○																					
		DNMG 150416 NEM	1,6		○	○				○	○	○																					
		DNMG 150608 NEM	0,8	○	●	○				●	●	●																					
		DNMG 150612 NEM	1,2	○	●	○				●	●	●																					
		DNMG 150616 NEM	1,6		●																												
Roughing	 NME	DNMG 150408 NME	0,8	○	○	○		▲						○	○																		
		DNMG 150412 NME	1,2	○	○	○			▲					○	○																		
		DNMG 150416 NME	1,6		○									○	○																		
		DNMG 150608 NME	0,8	●	●	●	▲	▲	▲					○	○																		
		DNMG 150612 NME	1,2	●	●	○	▲	▲	▲					○	○																		
		DNMG 150616 NME	1,6	●	●	○	▲	▲	▲					○	●																		

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
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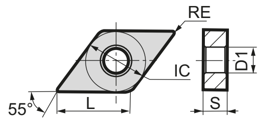
D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type — 0° Relief — With Insert Hole

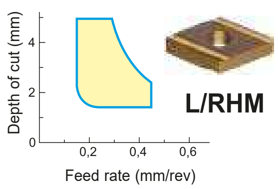
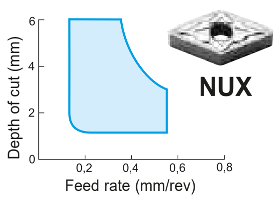
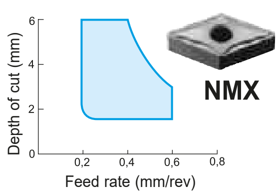
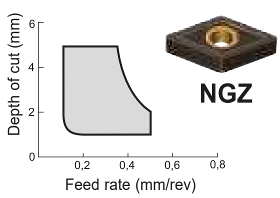
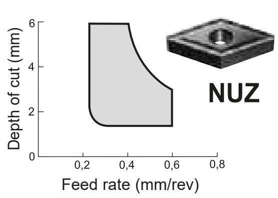


Dimensions (mm)				
DN_ _	L	IC	S	D_1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16

- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

DNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

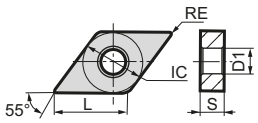
Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P	P	P	P	P	P	M	M	M	P/M	K	K	K	K	K	H	S	S	K/S	M/S	P/M	P/M	P	P	P	P	K	S	S	N
Roughing	 L/RHM	DNMG 150404 LHM	0,4		○						○																						
		DNMG 150408 LHM	0,8		○						○																						
		DNMG 150404 RHM	0,4	○	○	○		▲	▲		○																						
		DNMG 150408 RHM	0,8	○	○	○	▲	▲	▲		○																						
Roughing	 NUX	DNMG 110408 NUX	0,8	○	○	○			▲																								
		DNMG 150404 NUX	0,4	○	○	○	▲	▲																									
		DNMG 150408 NUX	0,8	○	○	○	▲	▲																									
		DNMG 150412 NUX	1,2	○	○	○	▲	▲																									
		DNMG 150604 NUX	0,4	○	●	○		▲	▲																								
		DNMG 150608 NUX	0,8	●	●	●	▲	▲	▲																								
		DNMG 150612 NUX	1,2	●	●	●	▲	▲	▲																								
		DNMG 150616 NUX	1,6		●			▲																									
Roughing	 NMX	DNMG 150408 NMX	0,8		○	○		▲	▲																								
		DNMG 150412 NMX	1,2		○	○		▲																									
		DNMG 150608 NMX	0,8		●			▲																									
		DNMG 150612 NMX	1,2		●			▲																									
Roughing	 NGZ	DNMG 110408 NGZ	0,8											○	○	●	▲	▲															
		DNMG 110412 NGZ	1,2											○	○	●	▲	▲															
		DNMG 150404 NGZ	0,4											○	○																		
		DNMG 150408 NGZ	0,8					▲						○	○	○		▲															
		DNMG 150412 NGZ	1,2											○	○			▲															
		DNMG 150604 NGZ	0,4															▲															
		DNMG 150608 NGZ	0,8											●	●	●	▲	▲															
		DNMG 150612 NGZ	1,2											○	○	●	▲	▲															
Roughing	 NUZ	DNMG 150404 NUZ	0,4		○									○	○																		
		DNMG 150408 NUZ	0,8		○	○		▲						○	○	○		▲															
		DNMG 150412 NUZ	1,2		○	○								○	○																		
		DNMG 150608 NUZ	0,8		○			▲						○	●	●	▲	▲															
		DNMG 150612 NUZ	1,2		○									○	○	●	▲	▲															

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
D
K
R
S
T
V
W

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief | With Insert Hole



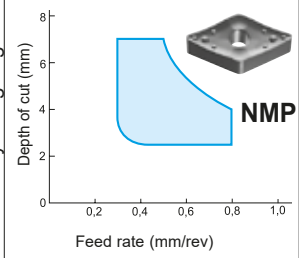
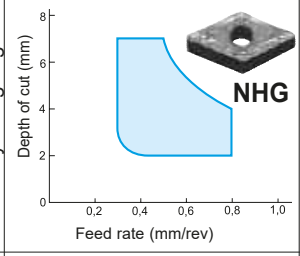
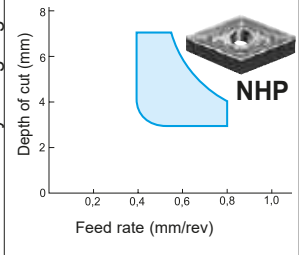
Dimensions (mm)				
DN__	L	IC	S	D_1
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16

⇨ D13, D19 ⇨ E9

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

DNMM ●●●●●● ■-■■

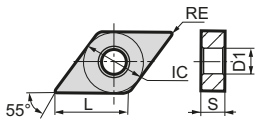
● M-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Heavy Roughing	 NMP	**DNMM 150404 NMP**	0,4		○	○		▲	▲																						
		DNMM 150408 NMP	0,8	○	○	○	▲	▲																							
		DNMM 150412 NMP	1,2	○	○	○	▲	▲	▲																						
		DNMM 150416 NMP	1,6	○	○																										
		DNMM 150604 NMP	0,4		●	●		▲	▲																						
		DNMM 150608 NMP	0,8	●	●	●	▲	▲	▲				●																		
		DNMM 150612 NMP	1,2	●	●	●	▲	▲	▲				●																		
		DNMM 150616 NMP	1,6	○	●	●	▲	▲	▲				●																		
Heavy Roughing	 NHG	**DNMM 150604 NHG**	0,4				▲	▲																							
		DNMM 150608 NHG	0,8	●		●	▲	▲	▲				●																		
		DNMM 150612 NHG	1,2	●	●		▲	▲	▲				●																		
		DNMM 150616 NHG	1,6	●	●		▲	▲	▲				●																		
Heavy Roughing	 NHP	**DNMM 150404 NHP**	0,4		○	○																									
		DNMM 150408 NHP	0,8		○	○																									
		DNMM 150412 NHP	1,2		○	○																									
		DNMM 150416 NHP	1,6		○																										
		DNMM 150604 NHP	0,4		○																										
		DNMM 150608 NHP	0,8		●	○		▲	▲																						
		DNMM 150612 NHP	1,2		○	○		▲	▲																						
		DNMM 150616 NHP	1,6		○				▲																						

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief | With Insert Hole



Dimensions (mm)				
DN_ _	L	IC	S	D_1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16
1506..	15,5	12,7	6,35	5,16


⇨ D13, D19

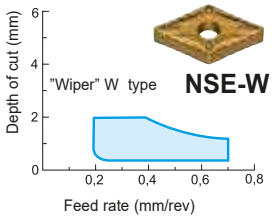

⇨ E9

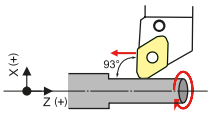
- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

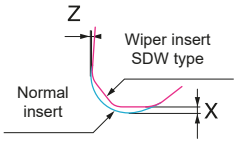
DNMA / DNMX

Flat Inserts and One Side Handed Inserts

●M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated G10E	Carbide Uncoated EH510	EH520	H1
Roughing		**DNMA 150404**	0,4											○	○																	
		DNMA 150408	0,8											○	○	○																
		DNMA 150412	1,2											○	○		▲															
		DNMA 150608	0,8											●	●	●	▲	▲														
		DNMA 150612	1,2											○	○	●	▲	▲														
		**DNMX 150608 L**	0,8					▲																								
		**DNMX 150608 R**	0,8					▲																								
Finishing		**DNMX 110404 NSE-W**	0,4	●	○	○	▲	▲	▲																							
		DNMX 110408 NSE-W	0,8	○	○	○	▲	▲	▲																							
		DNMX 110412 NSE-W	1,2	○	○	○	▲	▲	▲																							
		DNMX 150404 NSE-W	0,4	○	○		▲																			○		○				
		DNMX 150408 NSE-W	0,8	○	○																					○						
		DNMX 150412 NSE-W	1,2	○	○																											
		DNMX 150604 NSE-W	0,4	●	●		▲	▲																								
		DNMX 150608 NSE-W	0,8	●	●		▲	▲																								
		DNMX 150612 NSE-W	1,2	●			▲	▲																								





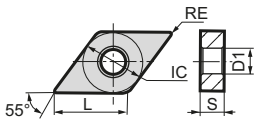
(Note) The cutting point position of the SDW type does not follow the ISO standard.
Wenn using on a boring holder with a 93° approach angle, there is a need to revise the cutting point position (refer to right table) relative to using standard inserts.

r	Compensation (mm) X (Diam. change)	Z
0,4	-0,14 (Ø : -0,28)	-0,02
0,8	-0,14 (Ø : -0,28)	-0,02
1,2	-0,1 (Ø : -0,2)	-0,03

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 0° Relief / With Insert Hole



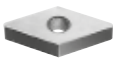
Dimensions (mm)				
DN__	L	IC	S	D_1
1104..	11,6	9,525	4,76	3,81
1504..	15,5	12,7	4,76	5,16

⇨ D13, D19 ⇨ E9

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

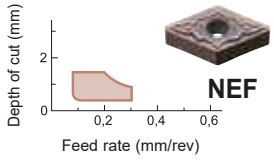
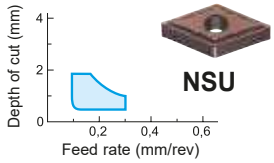
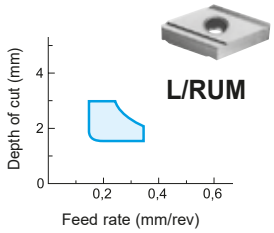
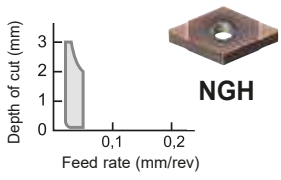
DNGA ●●●●●●

● G-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated: T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated: G10E	EH510	EH520	Carbide Uncoated: H1
Medium Cut		**DNGA 150402**	0,2																○														
		DNGA 150404	0,4																○								○						
		DNGA 150408	0,8																○								○						

DNGG ●●●●●● ■-■■

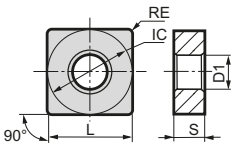
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated: T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated: G10E	EH510	EH520	Carbide Uncoated: H1
Finishing	 NEF	**DNGG 150404 NEF**	0,4																													○	
		DNGG 150408 NEF	0,8																		○												
Finishing	 NSU	**DNGG 150402 NSU**	0,2																	○	○					○		○	○				
		DNGG 150404 NSU	0,4																	○	○					○	○	○	○				
		DNGG 150408 NSU	0,8																	○	○					○	○	○	○				
Medium Cut	 L/RUM	**DNGG 110404 LUM**	0,4																							○		○	○				
		DNGG 110408 LUM	0,8																							○		○	○				
		DNGG 150404 LUM	0,4																							○		○	○				
		DNGG 150408 LUM	0,8																							○		○	○				
		DNGG 110404 RUM	0,4																							○		○	○	○			
		DNGG 110408 RUM	0,8																							○		○	○				
		DNGG 150404 RUM	0,4																							○		○	○				
		DNGG 150408 RUM	0,8																							○		○	○				
Finishing	 NGH	**DNGG 150402 NGH**	0,2																○														
		DNGG 150404 NGH	0,4																○														
		DNGG 150408 NGH	0,8																○														

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
SN_ _	L	IC	S	D_1
1204..	12,7	12,7	4,76	5,16

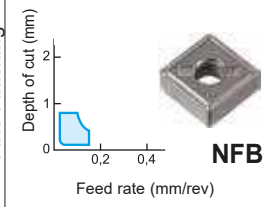
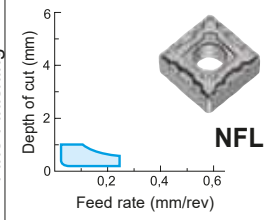
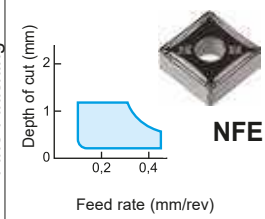
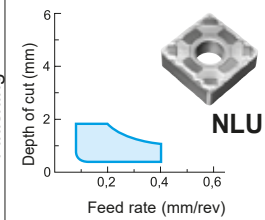
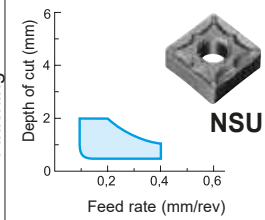
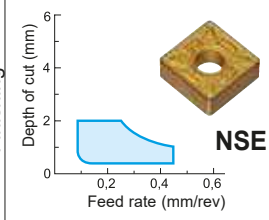

⇨ D14, D20~21
D41


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SNMG ●●●●●● ■-■■

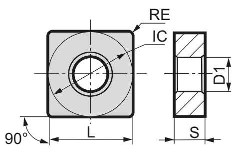
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Coated P	Cermet Coated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Fine Finishing	 NFB	**SNMG 120404 NFB**	0,4									○														○	○	○	○				
		SNMG 120408 NFB	0,8									○														○	○	○	○				
Fine Finishing	 NFL	**SNMG 120408 NFL**	0,8		○			▲																		○	○		○				
Fine Finishing	 NFE	**SNMG 120404 NFE**	0,4	○	○	○	▲		▲		○	○														○	○	○	○				
		SNMG 120408 NFE	0,8	○	○	○	▲		▲		○	○														○	○	○	○				
		SNMG 120412 NFE	1,2	○	○	○	▲		▲		○	○														○	○	○	○				
Finishing	 NLU	**SNMG 120408 NLU**	0,8	○	○		▲	▲			○	○														○	○		○				
		SNMG 120412 NLU	1,2	○	●		▲	▲			○		○													○	○						
Finishing	 NSU	**SNMG 120408 NSU**	0,8	●	●	○	▲	▲	▲	●	●	●	○							●	●	▲	▲			○	○	○	○				
		SNMG 120412 NSU	1,2																		●	▲	▲										
Finishing	 NSE	**SNMG 120408 NSE**	0,8	○	○	○	▲	▲																									
		SNMG 120412 NSE	1,2	●	●	○	▲	▲	▲																								

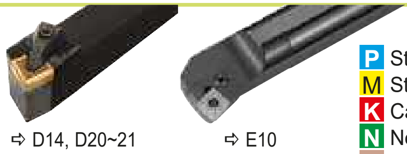
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

90° Square Type

0° Relief
With Insert Hole



Dimensions (mm)				
SN_ _	L	IC	S	D_1
0903..	9,525	9,525	3,18	3,81
1204..	12,7	12,7	4,76	5,16
1506..	15,875	15,875	6,35	6,35



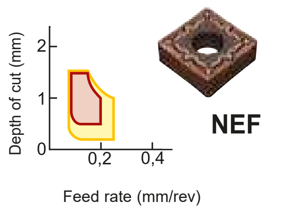
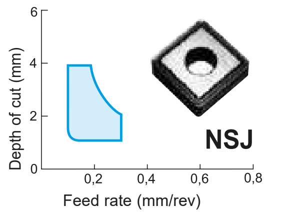
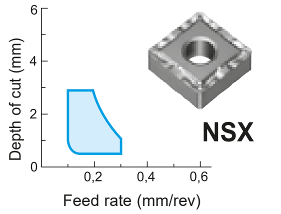
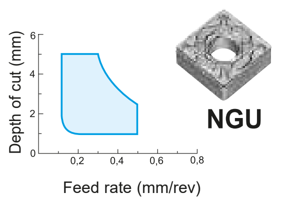
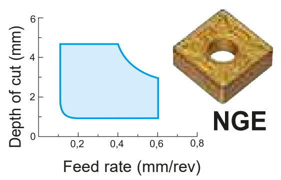
⇨ D14, D20~21
D41

⇨ E10

- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

SNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Finishing		SNMG 120404 NEF	0,4	○	○	○				●	●	●																					
		SNMG 120408 NEF	0,8	○	●	○				○	●	●																					
Finishing		SNMG 090304 NSJ	0,4																										○				
		SNMG 120404 NSJ	0,4																										○				
Finishing		SNMG 120404 NSX	0,4																							○	○		○				
		SNMG 120408 NSX	0,8	○	○	○																				○	○		○				
		SNMG 120412 NSX	1,2	○	○	○																											
Medium Cut		SNMG 090304 NGU	0,4		●			▲						○	○																		
		SNMG 090308 NGU	0,8	○	●	○		▲	▲					○	○											○			○				
		SNMG 120404 NGU	0,4	●	●	○	▲	▲	▲	○	●	●	○	○	○						○		▲						○				
		SNMG 120408 NGU	0,8	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲			○			○				
		SNMG 120412 NGU	1,2	●	●	●	▲	▲	▲	●	●	●	○	○	○						○		▲										
		SNMG 120416 NGU	1,6	●	●	○		▲	▲		●		●	○	○																		
		SNMG 150608 NGU	0,8	○	○	○					○			○	○																		
		SNMG 150612 NGU	1,2	○	○	○		▲	▲		○			○	○																		
		SNMG 150616 NGU	1,6	○	○	○	▲							○	○																		
Medium Cut		SNMG 120408 NGE	0,8	○	●	○	▲	▲	▲																								
		SNMG 120412 NGE	1,2	○	●	●	▲	▲	▲																								
		SNMG 120416 NGE	1,6	○	●	○	▲	▲	▲																								
		SNMG 150608 NGE	0,8	○	○	○																											
		SNMG 150612 NGE	1,2	○	○	○																											
		SNMG 150616 NGE	1,6	○	○	○	▲																										

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
D
K
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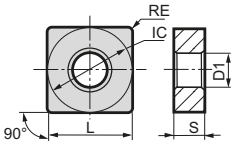
S
T
V
W

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
SN_ _	L	IC	S	D_1
0903..	9,525	9,525	3,18	3,81
1204..	12,7	12,7	4,76	5,16
1506..	15,875	15,875	6,35	6,35
1906..	19,05	19,05	6,35	7,94
2509..	25,4	25,4	9,52	9,2

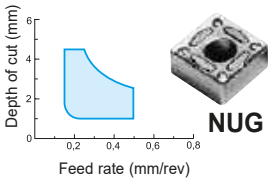
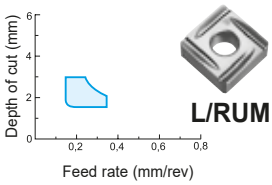
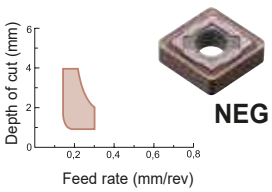
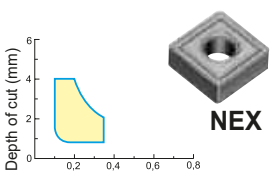
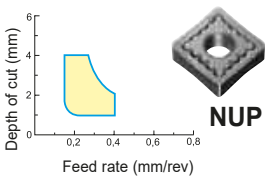

⇨ D14, D20~21 D41


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

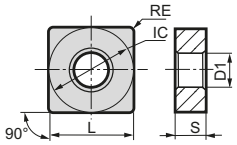
SNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P/M	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Medium Cut	 NUG	**SNMG 090308 NUG**	0,8		○	●		▲	▲																							
		SNMG 120408 NUG	0,8	○	○	●			▲																							
		SNMG 120412 NUG	1,2		○	●																										
		SNMG 120416 NUG	1,6	●		○			▲																							
		SNMG 150612 NUG	1,2			○																										
		SNMG 190612 NUG	1,2			○			▲																							
		SNMG 190616 NUG	1,6			○																										
		SNMG 250924 NUG	2,4			○			▲																							
Medium Cut	 L/RUM	**SNMG 120404 LUM**	0,4																										○			
		SNMG 120408 LUM	0,8																										○			
		SNMG 120412 LUM	1,2																										○			
		SNMG 120404 RUM	0,4																										○			
		SNMG 120408 RUM	0,8																										○			
Medium Cut	 NEG	**SNMG 120404 NEG**	0,4	○	●	○				○	●	●								●	●	▲	▲							○	●	
		SNMG 120408 NEG	0,8	○	●	○				●	●	●	○							○	○	▲	▲							●	○	
		SNMG 120412 NEG	1,2	○	●	○				●	●	●	○																			
		SNMG 150608 NEG	0,8	○	○	○				○																						
		SNMG 150612 NEG	1,2	○	○	○				●	●		○							○	○									○		
		SNMG 150616 NEG	1,6	○	○	○				○																						
		SNMG 190612 NEG	1,2	○	○	○				○	●									○	○									○	○	
		SNMG 190616 NEG	1,6	○	○	○				○	●										○									○	○	
Medium Cut	 NEX	**SNMG 120404 NEX**	0,4							●	●	●	○							○	●	▲	▲									
		SNMG 120408 NEX	0,8							●	●	●	●							○	●	▲	▲									
		SNMG 120412 NEX	1,2							●	●	●	○							○	●	▲	▲									
		SNMG 150612 NEX	1,2																	○	○	▲	▲									
		SNMG 190612 NEX	1,2																	○	○	▲	▲									
		SNMG 190616 NEX	1,6																		●	▲	▲									
Medium Cut	 NUP	**SNMG 120404 NUP**	0,4		●	●		▲	▲		●		○							●	●	▲	▲									
		SNMG 120408 NUP	0,8		●	●		▲	▲	●	●	●	●							●	○	▲	▲						○			
		SNMG 120412 NUP	1,2					▲	▲	●	●	●	○							○	○	▲	▲									

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
SN__	L	IC	S	D_1
0903..	9,525	9,525	3,18	3,81
1204..	12,7	12,7	4,46	5,16
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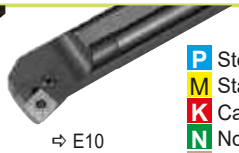
1906..	19,05	19,05	6,35	7,94
2509..	25,4	25,4	9,52	9,2

⇨ D14, D20~21
D41

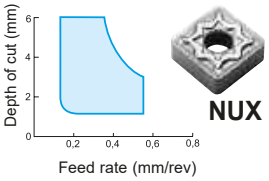
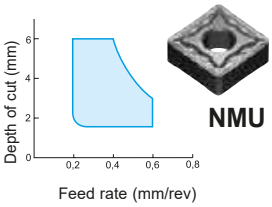
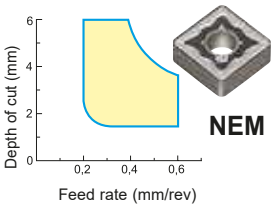
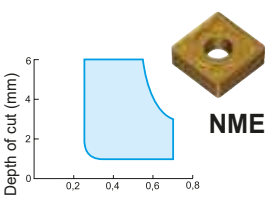


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SNMG ●●●●●● ■-■■

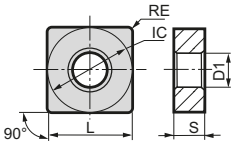
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	Carbide Coated M	AC6020M	AC6030M	AC6040M	Carbide Coated P/M	AC630M	Carbide Coated K	AC4010K	AC4015K	AC420K	AC405K	AC415K	Carbide Coated H	AC503U	Carbide Coated S	AC5015S	AC5025S	Carbide Coated K/S	AC510U	Carbide Coated M/S	AC520U	Carbide Coated P/M	AC1030U	AC530U	Cermet Coated P	T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated P	Carbide Uncoated K	G10E	Carbide Uncoated S	EH510	EH520	Carbide Uncoated N	H1
Roughing	 NUX	**SNMG 090308 NUX**	0,8				○																																							
		SNMG 120404 NUX	0,4				○																																							
		SNMG 120408 NUX	0,8	●	●	●	●	▲	▲	▲																																				
		SNMG 120412 NUX	1,2	●	●	●	●	▲	▲	▲																																				
		SNMG 120416 NUX	1,6	○	○	○	○	▲	▲	▲																																				
		SNMG 190612 NUX	1,2	○	○	○	○	▲	▲	▲																																				
		SNMG 190616 NUX	1,6	○	○	○	○	▲	▲	▲																																				
Roughing	 NMU	**SNMG 120408 NMU**	0,8	●	●	●	●	▲	▲	▲	●	●		●												●	●	▲	▲			○	○															
		SNMG 120412 NMU	1,2	○	●	●	●	▲	▲	▲	●	●		●												●	●	▲	▲			○	○															
		SNMG 120416 NMU	1,6	●	●	○	●	▲	▲	▲	●			●																																		
		SNMG 150608 NMU	0,8	○	○	○																																								
		SNMG 150612 NMU	1,2	●	○	●	●	▲	▲	▲	●	●		●												○	○	▲	▲																			
		SNMG 150616 NMU	1,6	●	●	●	●	▲	▲	▲	●	●		●												○	○	▲	▲																			
		SNMG 190612 NMU	1,2	●	●	●	●	▲	▲	▲	●	●		●												○	●	▲	▲																			
		SNMG 190616 NMU	1,6	●	●	●	●	▲	▲	▲	●	●		●												○	●	▲	▲																			
		SNMG 190624 NMU	2,4	○	○	○																																								
		SNMG 250924 NMU	2,4	○	○	●			▲																																					
Roughing	 NEM	**SNMG 120408 NEM**	0,8	○	●	○				●	●	●													○	○																					
		SNMG 120412 NEM	1,2	○	●	○				●	●	●													○	○																					
		SNMG 120416 NEM	1,6		●																																										
		SNMG 150608 NEM	0,8	○	○	○				○	○	○																																		
		SNMG 150612 NEM	1,2	○	●	○				●	●	●													○	○																					
		SNMG 150616 NEM	1,6	○	●	○				●	●	●																																		
		SNMG 190612 NEM	1,2	○	●	○				●	●	●																																		
		SNMG 190616 NEM	1,6	○	●	○				●	●	●																																		
		SNMG 190624 NEM	2,4	○	○	○				○		○																																		
		SNMG 250924 NEM	2,4	○	○	○					○	○																																		
Roughing	 NME	**SNMG 120408 NME**	0,8	○	●	●	▲	▲	▲					○	○																																	
		SNMG 120412 NME	1,2	○	○	○	▲	▲	▲					○	○																																	
		SNMG 120416 NME	1,6	○	○	○	▲	▲	▲					○	○																																	
		SNMG 150608 NME	0,8	○	○	○								○	○																																	
		SNMG 150612 NME	1,2	○	●	○	▲		▲					○	○																																	
		SNMG 150616 NME	1,6	○	○	○	▲	▲	▲					○	○																																	
		SNMG 190612 NME	1,2	○	○	○	▲	▲	▲					○	○																																	
		SNMG 190616 NME	1,6	○	●	●	▲	▲	▲					○	○																																	
		SNMG 190624 NME	2,4	○	○	○		▲						○	○																																	
		SNMG 250924 NME	2,4	○	○	○								○	○																																	

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
SN_ _	L	IC	S	D_1
1204..	12,7	12,7	4,46	5,16
1506..	15,875	15,875	6,35	6,35
1906..	19,05	19,05	6,35	7,94

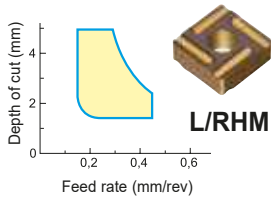
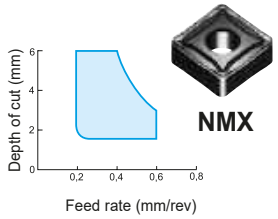
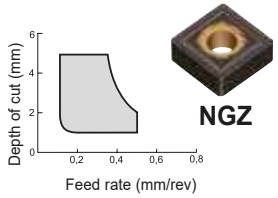
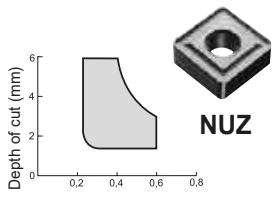

⇨ D14, D20~21
D41


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P/M	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC630M	AC6020M	AC630M	AC4010K	AC503U	AC5015S	AC510U	AC520U	AC1030U	T1500Z	T3000Z	G10E	EH510	H1
				AC8025P	AC6030M	AC6030M	AC6040M	AC4015K	AC5025S	AC5025S			AC530U	T1000A	T1500A		EH520	
				AC8035P	AC6040M	AC6040M		AC420K										
				AC810P				AC405K										
				AC820P				AC415K										
				AC830P														
Roughing		**SNMG 120408 LHM**	0,8	○	○	○	●											
	L/RHM	**SNMG 120408 RHM**	0,8	○	○	○	●											
Roughing		**SNMG 120408 NMX**	0,8		○	○		▲	▲									
	NMX	**SNMG 120412 NMX**	1,2		○	●		▲	▲									
		SNMG 120416 NMX	1,6		○			▲	▲									
		SNMG 150612 NMX	1,2		●			▲	▲									
		SNMG 150616 NMX	1,6		●			▲	▲									
		SNMG 190612 NMX	1,2		●	●		▲	▲									
		SNMG 190616 NMX	1,6		○	●		▲	▲									
Roughing		**SNMG 120408 NGZ**	0,8					●	●	●	▲	▲						
	NGZ	**SNMG 120412 NGZ**	1,2					○	●	●	▲	▲						
		SNMG 120416 NGZ	1,6					○	○	●	▲	▲						
		SNMG 150612 NGZ	1,2					○	○	○	▲	▲						
		SNMG 150616 NGZ	1,6					○	○	○	▲	▲						
		SNMG 190612 NGZ	1,2					○	○	○		▲						
		SNMG 190616 NGZ	1,6					○	○	○		▲						
Roughing		**SNMG 120408 NUZ**	0,8		○	○		▲								○		
	NUZ	**SNMG 120412 NUZ**	1,2		○	○			▲									
		SNMG 120416 NUZ	1,6		○	○				●	▲	▲						
		SNMG 150612 NUZ	1,2		○	○				●	▲	▲						
		SNMG 150616 NUZ	1,6							●		▲						
		SNMG 190612 NUZ	1,2		○	○			▲	●		▲						
		SNMG 190616 NUZ	1,6		○	○			▲	●		▲						

● = Euro stock
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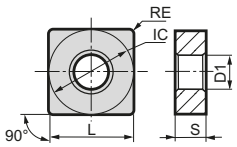
S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
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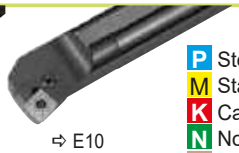
1204..	12,7	12,7	4,46	5,16
1506..	15,875	15,875	6,35	6,35
1906..	19,05	19,05	6,35	7,94
2507..	25,4	25,4	7,94	9,2
2509..	25,4	25,4	9,52	9,2
3109..	31,75	31,75	9,52	8,8

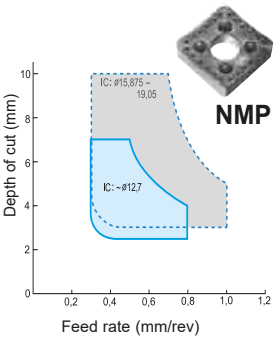
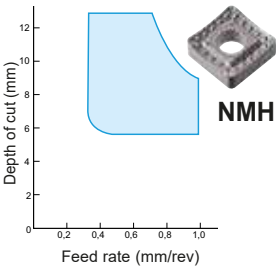
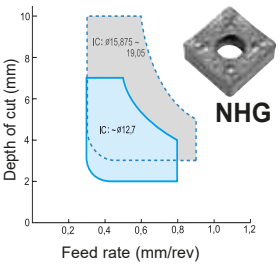
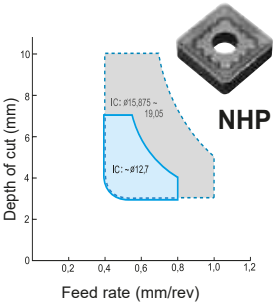

⇨ D14, D20~21


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SNMM ●●●●●● ■-■■

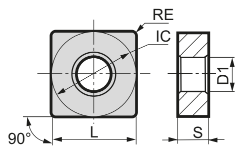
● M-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K			Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Heavy Roughing	 NMP	**SNMM 120408 NMP**	0,8	○	●	●	▲	▲	▲		●		○							○		▲										
		SNMM 120412 NMP	1,2	○	○	●		▲	▲		●		●							○		▲										
		SNMM 120416 NMP	1,6	○	●	○	▲	▲	▲		●		○							○		▲										
		SNMM 120420 NMP	2,0		●	●		▲	▲																							
		SNMM 150612 NMP	1,2	○	●	●	▲	▲	▲		○		●																			
		SNMM 150616 NMP	1,6	●	●	●	▲	▲	▲		○		●																			
		SNMM 190612 NMP	1,2	○	●	●	▲	▲	▲		●		●							○		▲										
		SNMM 190616 NMP	1,6	●	●	●	▲	▲	▲		●		○							○		▲										
		SNMM 190624 NMP	2,4	●	●			▲	▲																							
		SNMM 250724 NMP	2,4	○	○	●	▲	▲	▲		○		○																			
		SNMM 250924 NMP	2,4	○	○		▲	▲			○		○																			
		SNMM 310924 NMP	2,4	○	○			▲			○		○																			
Heavy Roughing	 NMH	**SNMM 190612 NMH**	1,2	●	●	●		▲	▲		●																				
		SNMM 190616 NMH	1,6	●	●	●		▲	▲		●																				
		SNMM 250724 NMH	2,4		●	●																										
		SNMM 250924 NMH	2,4		●	●																										
Heavy Roughing	 NHG	**SNMM 120408 NHG**	0,8	●	○	○	▲	▲	▲				○																			
		SNMM 120412 NHG	1,2	○	●	○	▲	▲	▲				○																			
		SNMM 120416 NHG	1,6	○	●	○	▲	▲	▲				○																			
		SNMM 150612 NHG	1,2				▲						●																			
		SNMM 150616 NHG	1,6	○	●		▲	▲					●																			
		SNMM 190612 NHG	1,2	○	○	●	▲	▲	▲				○																			
		SNMM 190616 NHG	1,6	●	●	●	▲	▲	▲				●																			
		SNMM 190624 NHG	2,4	○	●	●		▲	▲				○																			
		SNMM 190616 NHGS	1,6		●			▲																								
Heavy Roughing	 NHP	**SNMM 120408 NHP**	0,8		○	●		▲	▲																							
		SNMM 120412 NHP	1,2		●	●		▲	▲																							
		SNMM 120416 NHP	1,6		○	○			▲																							
		SNMM 150612 NHP	1,2			●			▲																							
		SNMM 190612 NHP	1,2		●	●		▲	▲				○																			
		SNMM 190616 NHP	1,6		●	●		▲	▲				●																			
		SNMM 190624 NHP	2,4		●	●	▲	▲	▲																							
		SNMM 250724 NHP	2,4		●	●		▲	▲				○																			
		SNMM 250924 NHP	2,4		○	●	▲	▲	▲				○																			
		SNMM 310924 NHP	2,4			●	▲						○																			

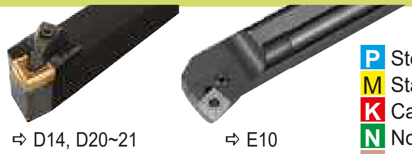
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type — 0° Relief — With Insert Hole



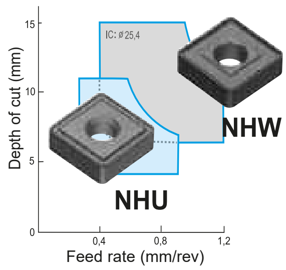
Dimensions (mm)				
SN_ _	L	IC	S	D1
1906..	19,05	19,05	6,35	7,94
2507..	25,4	25,4	7,94	9,2
2509..	25,4	25,4	9,52	9,2
3109..	31,75	31,75	9,52	8,8

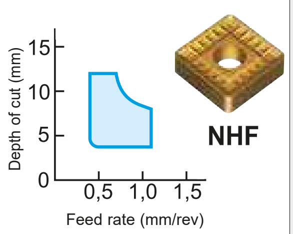


P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

SNMM ●●●●●● ■-■■

● M-Class One Sided Bumpy Chipbreaker





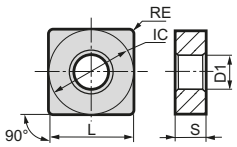
Application	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
			Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
			P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Heavy Roughing	SNMM 190616 NHU	1,6				▲						●																				
Heavy Roughing	SNMM 250724 NHU	2,4		●		▲	▲					●																				
Heavy Roughing	SNMM 250924 NHU	2,4		○		▲	▲					●																				
Heavy Roughing	SNMM 310924 NHU	2,4		○			▲																									
Heavy Roughing	SNMM 190616 NHW	1,6				▲						●																				
Heavy Roughing	SNMM 250724 NHW	2,4		●		▲	▲	▲				○																				
Heavy Roughing	SNMM 250924 NHW	2,4		●		▲	▲					○																				
Heavy Roughing	SNMM 310924 NHW	2,4		○			▲					○																				
Heavy Roughing	SNMM 190612 NHF	1,2					▲	▲																								
Heavy Roughing	SNMM 190616 NHF	1,6		○	○		▲	▲																								
Heavy Roughing	SNMM 190624 NHF	2,4		○	●	▲	▲	▲																								
Heavy Roughing	SNMM 250724 NHF	2,4		○	○		▲	▲				○																				
Heavy Roughing	SNMM 250732 NHF	3,2		○	○		▲																									
Heavy Roughing	SNMM 250924 NHF	2,4		○	●		▲	▲				○																				
Heavy Roughing	SNMM 250932 NHF	3,2		○	○		▲																									
Heavy Roughing	SNMM 310924 NHF	2,4		○	○		▲																									

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts | C | D | K | R | S | T | V | W

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | With Insert Hole



Dimensions (mm)				
SN__	L	IC	S	D_1
0903..	9,525	9,525	3,18	3,81
1204..	12,7	12,7	4,76	5,16
1506..	15,875	15,875	6,35	6,35
1906..	19,05	19,05	6,35	7,94

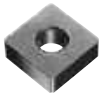
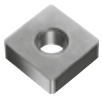

⇨ D14, D20-21
D25


⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

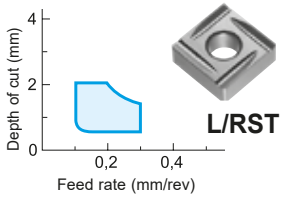
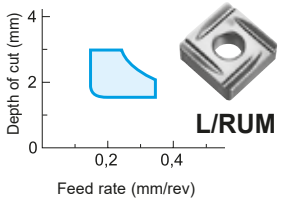
SNMA/SNGA ●●●●●●

● G/M-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing		**SNMA 120404**	0,4											○	○																		
		SNMA 120408	0,8											○	○	●	▲	▲											○				
		SNMA 120412	1,2											●	●	●	▲	▲															
		SNMA 120416	1,6											○	●	●	▲	▲															
		SNMA 120420	2,0											○	○																		
		SNMA 150612	1,2											○	○	○		▲															
		SNMA 150616	1,6											○	○			▲															
		SNMA 190612	1,2											○	○	●	▲	▲															
		SNMA 190616	1,6											○	○	●	▲	▲															
Medium Cut		**SNGA 120404**	0,4																○														
		SNGA 120408	0,8																○														
		SNGA 120412	1,2																									○					

SNGG ●●●●●● ■-■■

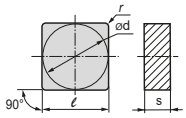
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cutting		**SNGG 090304 LST**	0,4																									○	○				
		SNGG 090308 LST	0,8																									○	○				
		SNGG 090304 RST	0,4																									○	○				
		SNGG 090308 RST	0,8																									○	○				
Medium Cut		**SNGG 120404 LUM**	0,4																									○	●				
		SNGG 120408 LUM	0,8																									○	●				
		SNGG 120404 RUM	0,4																									○	●				
		SNGG 120408 RUM	0,8																									●	●				
		SNGG 120412 RUM	1,2																									○	●				

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 0° Relief | Without Insert Hole



Dimensions (mm)				
SN_ _	L	IC	S	D_1
1204..	12,7	12,7	4,76	5,16

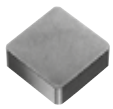
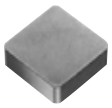
⇨ D14, D20-21
D25

⇨ E10

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

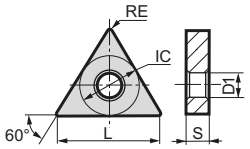
SN_N ●●●●●● ■-■■

● G/M-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	P/M: AC630M	K: AC4010K	AC4015K	AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	K/S: AC510U	M/S: AC520U	P/M: AC1030U	AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Medium Cut		**SNGN 120408**	0,8																						○		○	○				
Medium Cut		**SNMN 120408**	0,8											○	○										○		○	○				
		SNMN 120412	1,2											○	○																	
		SNMN 120416	1,6											○	○	○																

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

60° Triangle Type | 0° Relief | With Insert Hole



Dimensions (mm)				
TN__	L	IC	S	D_1
1604..	16,5	9,525	4,76	3,81

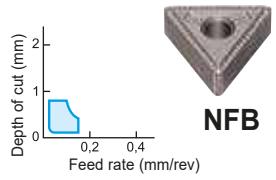
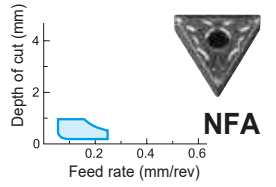
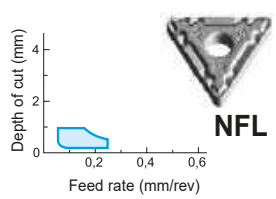
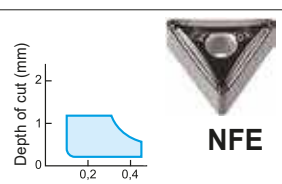
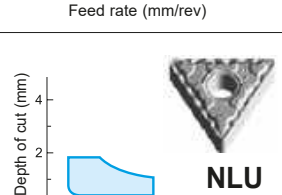
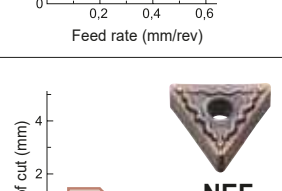
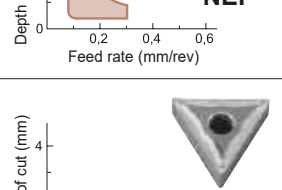
⇨ D15, D22~23
D42

⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TNMG ●●●●●● ■-■■

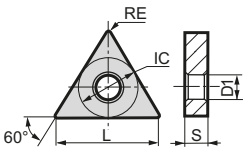
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K			Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P			Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Fine Finishing	 NFB	**TNMG 160402 NFB**	0,2									○														○	○	○	○				
		TNMG 160404 NFB	0,4									○														○	○	○	○				
		TNMG 160408 NFB	0,8									○														○	○	○	○				
Fine Finishing	 NFA	**TNMG 160402 NFA**	0,2																							●	○	○	●				
		TNMG 160404 NFA	0,4																							●	○	○	●				
		TNMG 160408 NFA	0,8																							●	○	○	●				
Fine Finishing	 NFL	**TNMG 160404 NFL**	0,4		○			▲					○													●	●	○	●				
		TNMG 160408 NFL	0,8		○			▲					○													●	○	○	●				
Fine Finishing	 NFE	**TNMG 160402 NFE**	0,2	○	○	○	▲		▲		○	○														○	○	○	○				
		TNMG 160404 NFE	0,4	○	○	○	▲		▲		○	○														○	○	○	○				
		TNMG 160408 NFE	0,8	○	○	○	▲		▲		○	○														○	○	○	○				
		TNMG 160412 NFE	1,2	○	○	○	▲		▲		○	○														○	○	○	○				
Finishing	 NLU	**TNMG 160402 NLU**	0,2								○		○													○	○	○					
		TNMG 160404 NLU	0,4	●	●	○	▲	▲			○		○													●	●	○	●				
		TNMG 160408 NLU	0,8	●	●	○	▲	▲			○		○													●	○	○	●				
		TNMG 160412 NLU	1,2	●	●	○	▲	▲	▲		○		○													●	●	○	●				
Finishing	 NEF	**TNMG 160404 NEF**	0,4	○	●	○				●	●	●	○							○	○	▲	▲							○	○		
		TNMG 160408 NEF	0,8	○	●	○				●	●	●	○							○	○	▲	▲							○	○		
Finishing	 NSU	**TNMG 160402 NSU**	0,2							●	●	●	○									▲				○	○	○	○				
		TNMG 160404 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲		○	●	○	●	●				
		TNMG 160408 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲		○	●	○	●	●				
		TNMG 160412 NSU	1,2	●	●		▲	▲	▲		●		○							○	○	▲	▲			●	●	○	●				

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 0° Relief | With Insert Hole



Dimensions (mm)				
TN__	L	IC	S	D_1
1603..	16,5	9,525	3,18	3,81
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16

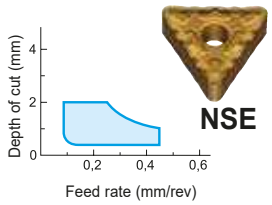
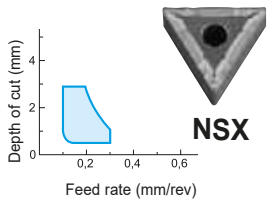
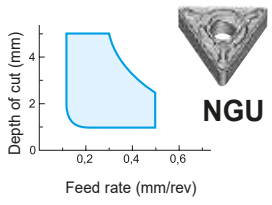
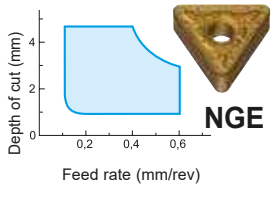
⇨ D15, D22~23 D42

⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TNMG ●●●●●● ■-■■

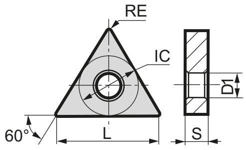
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K			Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P			Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N	
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NSE	**TNMG 160404 NSE**	0,4	●	●	○	▲	▲	▲																○		○	○				
		TNMG 160408 NSE	0,8	●	●	○	▲	▲	▲																○		○	○				
		TNMG 160412 NSE	1,2	●	●	○	▲	▲	▲																							
		TNMG 220404 NSE	0,4	●	●	○	▲	▲	▲																							
		TNMG 220408 NSE	0,8	●	○	○	▲	▲	▲																							
		TNMG 220412 NSE	1,2	○	○	○	▲																									
Finishing	 NSX	**TNMG 160308 NSX**	0,8			○																										
		TNMG 160404 NSX	0,4	●	○	○		▲																	○	○		○				
		TNMG 160408 NSX	0,8	○	●	○		▲	▲																○	○		○				
		TNMG 220404 NSX	0,4	○	○	○		▲																								
		TNMG 220408 NSX	0,8	○	○	○		▲																								
		TNMG 220412 NSX	1,2	○	○	○																										
Medium Cut	 NGU	**TNMG 160404 NGU**	0,4	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲			○	○		○				
		TNMG 160408 NGU	0,8	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲			○	○		○				
		TNMG 160412 NGU	1,2	●	●	●	▲	▲	▲	●	●	●	○	○	○						○		▲										
		TNMG 160416 NGU	1,6	○	●	●		▲	▲					○	○																		
		TNMG 220404 NGU	0,4		○			▲	▲					○	○							▲											
		TNMG 220408 NGU	0,8	●	●	○	▲	▲	▲				●	○	○																		
		TNMG 220412 NGU	1,2	●	○	●	▲	▲	▲				●	○	○																		
Medium Cut	 NGE	**TNMG 160404 NGE**	0,4	●	●	○	▲	▲	▲																							
		TNMG 160408 NGE	0,8	●	●	○	▲	▲	▲																							
		TNMG 160412 NGE	1,2	●	●	●	▲	▲	▲																							
		TNMG 220408 NGE	0,8	○	●	●	▲	▲	▲																							
		TNMG 220412 NGE	1,2	○	○	●	▲	▲	▲																							

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type — 0° Relief — With Insert Hole

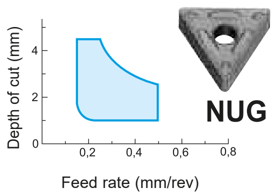
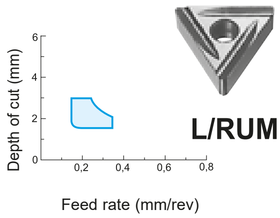
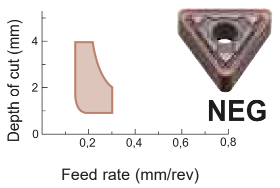
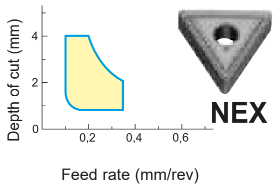
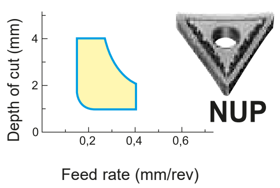


Dimensions (mm)				
TN_ _	L	IC	S	D_1
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16

P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

TNMG ●●●●●● ■-■■

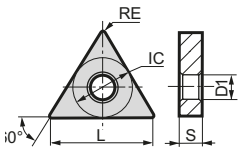
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Medium Cut	 NUG	TNMG 160404 NUG	0,4	●	○	●		▲	▲																								
		TNMG 160408 NUG	0,8	●	●	●		▲	▲																								
		TNMG 160412 NUG	1,2		○	○																											
		TNMG 160416 NUG	1,6	●	○	○																											
		TNMG 220408 NUG	0,8		○	●			▲																								
		TNMG 220412 NUG	1,2	○	○	○																											
Medium Cut	 L/RUM	TNMG 160404 LUM	0,4																							○	○	○	○				
		TNMG 160408 LUM	0,8																							○	○	○	○				
		TNMG 220404 LUM	0,4																										○				
		TNMG 220408 LUM	0,8						▲																				○				
		TNMG 160404 RUM	0,4	●																						○	○	○	○				
		TNMG 160408 RUM	0,8	●																						○	○	○	○				
		TNMG 220404 RUM	0,4																										○				
		TNMG 220408 RUM	0,8					▲	▲																				○				
Medium Cut	 NEG	TNMG 160404 NEG	0,4	○	●	○				○	●	●																					
		TNMG 160408 NEG	0,8	○	●	○				●	●	●	○							●	●	▲	▲								○	○	
		TNMG 160412 NEG	1,2	○	●	○				●	●	●	○							○	○	▲	▲								○	○	
Medium Cut	 NEX	TNMG 160404 NEX	0,4							●	●	●	●							○	●	▲	▲										
		TNMG 160408 NEX	0,8							●	●	●	●							●	●	▲	▲		○								
		TNMG 160412 NEX	1,2							●	●	●	○							●	○	▲	▲										
Medium Cut	 NUP	TNMG 160404 NUP	0,4		●	●		▲	▲	●	●	●	●							●	○	▲	▲		○					○			
		TNMG 160408 NUP	0,8		●	●		▲	▲	●	●	●	●							●	○	▲	▲							○			
		TNMG 160412 NUP	1,2					▲			●	●	○							●	○	▲	▲										
		TNMG 220408 NUP	0,8		●	●		▲	▲											○	○												
		TNMG 220412 NUP	1,2					▲	▲																								

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 0° Relief | With Insert Hole



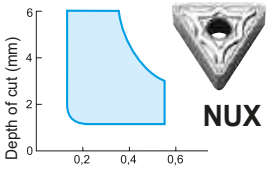
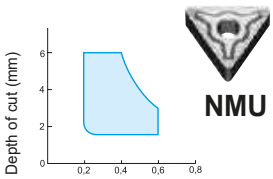
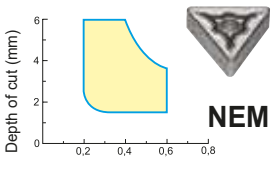
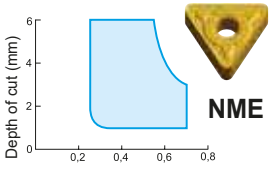
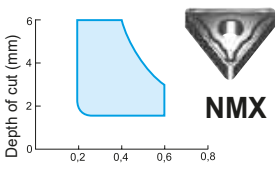
Dimensions (mm)				
TN__	L	IC	S	D_1
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16
2706..	27,5	15,875	6,35	6,35
3309..	33,0	19,05	9,52	7,93

⇨ D15, D22~23 D42 ⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

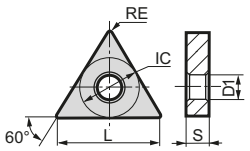
TNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P/M	K				H	S	K/S	M/S	P/M	Cermet Coated P				Carbide Uncoated K	S	N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing	 NUX	**TNMG 160404 NUX**	0,4	○	●	○	▲	▲	▲																						
		TNMG 160408 NUX	0,8	●	●	●	▲	▲	▲																						
		TNMG 160412 NUX	1,2	●	●	○	▲	▲	▲																						
		TNMG 220408 NUX	0,8	○	○	○	▲	▲	▲																						
		TNMG 220412 NUX	1,2	○	●	○	▲	▲	▲																						
Roughing	 NMU	**TNMG 160408 NMU**	0,8	●	●	●	▲	▲	▲	●	●		●								○			○							
		TNMG 160412 NMU	1,2	●	●	○	▲	▲	▲	●	●		○								○			○							
		TNMG 220408 NMU	0,8	●	●	●	▲	▲	▲	●			●								●										
		TNMG 220412 NMU	1,2	●	●	●	▲	▲	▲	●			●																		
		TNMG 220416 NMU	1,6	●	●	●	▲	▲	▲	●			●																		
		TNMG 270612 NMU	1,2	○	●	●		▲	▲																						
		TNMG 270616 NMU	1,6	○	○			▲																							
Roughing	 NEM	**TNMG 160408 NEM**	0,8	○	●	○				●	●	●									○										
		TNMG 160412 NEM	1,2	○	●	○				●	●	●																			
		TNMG 330924 NEM	2,4		○	○					○	○																			
Roughing	 NME	**TNMG 160408 NME**	0,8	○	●	○	▲	▲	▲					○	○																
		TNMG 160412 NME	1,2	●	●	○	▲	▲	▲																						
		TNMG 220408 NME	0,8	○	○	○		▲						○	○																
		TNMG 220412 NME	1,2	○	○	○		▲						○	○																
		TNMG 220416 NME	1,6	○	○	○	▲							○	○																
Roughing	 NMX	**TNMG 160408 NMX**	0,8		○	○		▲	▲																						
		TNMG 160412 NMX	1,2		●	●		▲	▲																						
		TNMG 220408 NMX	0,8		○	○		▲	▲																						
		TNMG 220412 NMX	1,2		○	○		▲	▲																						

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

60° Triangle Type | 0° Relief | With Insert Hole



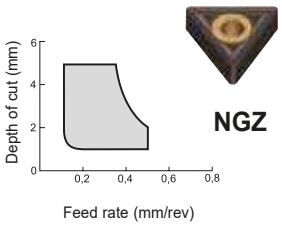
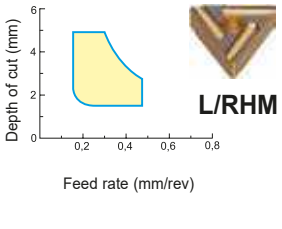
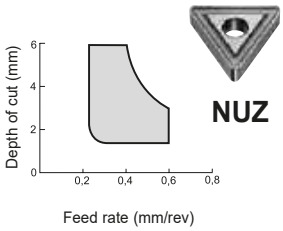
Dimensions (mm)				
TN__	L	IC	S	D_1
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16
2706..	27,5	15,875	6,35	6,35

⇨ D15, D22~23 D42 ⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TNMG ●●●●●● ■-■■

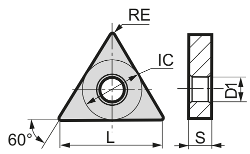
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K						Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P			Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing	 NGZ	TNMG 160404 NGZ	0,4											○	○	○	▲	▲														
		TNMG 160408 NGZ	0,8					▲						●	●	●	▲	▲														
		TNMG 160412 NGZ	1,2											○	○	●	▲	▲														
		TNMG 220408 NGZ	0,8											○	○		▲	▲														
		TNMG 220412 NGZ	1,2											○	○		▲	▲														
		TNMG 220416 NGZ	1,6											○	○		▲	▲														
Roughing	 L/RHM	TNMG 160404 LHM	0,4	○	○	○	▲	▲			●																					
		TNMG 160408 LHM	0,8	○	○	○	▲	▲			●																					
		TNMG 220404 LHM	0,4	○	○	○			▲																							
		TNMG 220408 LHM	0,8	○	○	○			▲																							
		TNMG 160404 RHM	0,4	●	○	○	▲	▲	▲		●		○																			
		TNMG 160408 RHM	0,8	○	○	○	▲	▲	▲		●																					
		TNMG 220404 RHM	0,4	○	○	○		▲	▲				○																			
		TNMG 220408 RHM	0,8	○	○	○	▲	▲	▲				○																			
Roughing	 NUZ	TNMG 160404 NUZ	0,4		○			▲						○	○	○	▲	▲														
		TNMG 160408 NUZ	0,8		○	○		▲						●	●	●	▲	▲														
		TNMG 160412 NUZ	1,2		○	○	▲							○	○	●	▲	▲														
		TNMG 160416 NUZ	1,6		○									○	○			▲														
		TNMG 160420 NUZ	2,0		○									○	○																	
		TNMG 220408 NUZ	0,8		○	●		▲	▲					○	○	○		▲														
		TNMG 220412 NUZ	1,2		○	○								○	○	○	▲	▲														
		TNMG 220416 NUZ	1,6		○	○								○	○	○	▲	▲														
		TNMG 270608 NUZ	0,8		○			▲																								
		TNMG 270612 NUZ	1,2		○																											
		TNMG 270616 NUZ	1,6		○				▲																							

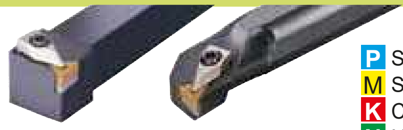
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type
0° Relief
With Insert Hole



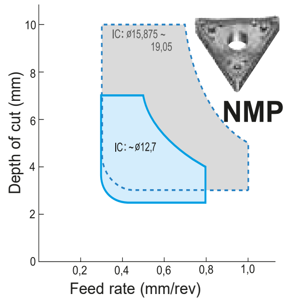
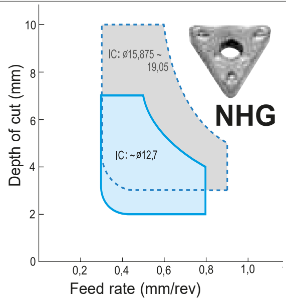
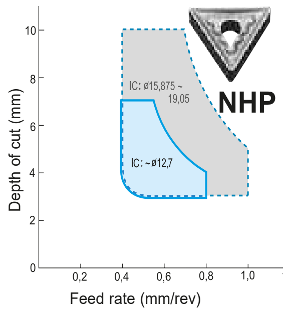
Dimensions (mm)				
TN_ _	L	IC	S	D1
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16
2706..	27,5	15,875	6,35	6,35



- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

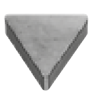
TNMM ●●●●●● ■-■■

● M-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Cermet Coated	Cermet Coated	Cermet Uncoated	Cermet Uncoated	Carbide Uncoated	Carbide Uncoated	Carbide Uncoated	Carbide Uncoated
				P	P	P	P	P	P	M	M	M	P/M	K	K	K	K	K	H	S	S	K/S	M/S	P/M	P/M	P	P	P	P	K	S	S	N
Heavy Roughing		TNMM 160404 NMP	0,4		○																												
		TNMM 160408 NMP	0,8	●	●	●	▲	▲	▲				●																				
		TNMM 160412 NMP	1,2		●	●		▲	▲				●																				
		TNMM 160416 NMP	1,6					▲																									
		TNMM 220408 NMP	0,8		●	●	▲	▲	▲																								
		TNMM 220412 NMP	1,2	●	●	●	▲	▲	▲				●																				
		TNMM 220416 NMP	1,6		●	●	▲	▲	▲				●																				
		TNMM 270612 NMP	1,2		○			▲																									
		TNMM 270616 NMP	1,6		○			▲	▲																								
Heavy Roughing		TNMM 160408 NHG	0,8	●			▲		▲				●																				
		TNMM 160412 NHG	1,2	●			▲		▲				●																				
		TNMM 160416 NHG	1,6				▲																										
		TNMM 220408 NHG	0,8		○	○		▲	▲																								
		TNMM 220412 NHG	1,2		●	●	▲	▲	▲																								
		TNMM 220416 NHG	1,6		●	○	▲	▲	▲																								
Heavy Roughing		TNMM 160408 NHP	0,8		○	○		▲	▲																								
		TNMM 160412 NHP	1,2		○	●		▲	▲																								
		TNMM 220408 NHP	0,8		○	○			▲																								
		TNMM 220412 NHP	1,2		○	●		▲	▲																								
		TNMM 220416 NHP	1,6		○			▲	▲																								
		TNMM 270612 NHP	1,2		○	●			▲																								
		TNMM 270616 NHP	1,6		○	○			▲																								

TNMN ●●●●●●

● M-Class No Chipbreaker

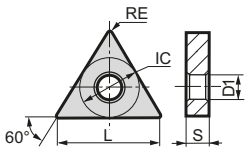
Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Carbide Coated	Cermet Coated	Cermet Coated	Cermet Uncoated	Cermet Uncoated	Carbide Uncoated	Carbide Uncoated	Carbide Uncoated	Carbide Uncoated
				P	P	P	P	P	P	M	M	M	P/M	K	K	K	K	K	H	S	S	K/S	M/S	P/M	P/M	P	P	P	P	K	S	S	N
Medium Cut		TNMN 160408	0,8											○	○	○																	
		TNMN 160412	1,2											○	○																		
		TNMN 160416	1,6											○	○	○																	

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
D
K
R
S
T
V
W

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 0° Relief | With Insert Hole



Dimensions (mm)				
TN__	L	IC	S	D_1
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16

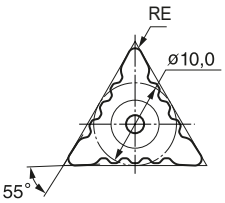
⇨ D15, D22~23 ⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TNMA ○○○○○○

● G/M-Class No Chipbreaker

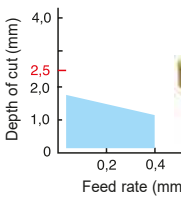
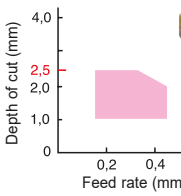
Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing		**TNMA 160404**	0,4											○	○	○	▲	▲											○	○		
		TNMA 160408	0,8											○	○	●	▲	▲											○			
		TNMA 160412	1,2											○	○	●	▲	▲														
		TNMA 160416	1,6											○	●	○	▲	▲														
		TNMA 160420	2,0											○	○																	
		TNMA 220408	0,8											○	○	○	▲	▲														
		TNMA 220412	1,2											○	●	○	▲	▲														
		TNMA 220416	1,6											○	●	○	▲	▲														



⇨ D11 ⇨ E11

TRM ○○○○○○ -■■

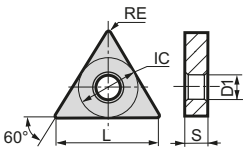
● M-Class Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Fine Finishing	 -FL	**TRM 551704 -FL**	0,4		○																					○	○					
		TRM 551708 -FL	0,8		○																					○	○					
Finishing	 -LU	**TRM 551704 -LU**	0,4	●	○		▲	▲	▲																	○	○					
		TRM 551708 -LU	0,8	●	○		▲	▲	▲																	○	○					
		TRM 551712 -LU	1,2	○	○		▲	▲																		○	○					
	  -SU	**TRM 551704 -SU**	0,4		○			▲					○													○	○					
		TRM 551708 -SU	0,8		○		▲	▲					○													○	○					
		TRM 551712 -SU	1,2		○			▲					○																			
Light Cut	  -GU	**TRM 551704 -GU**	0,4	○	○		▲	▲	▲				○																			
		TRM 551708 -GU	0,8	○	○		▲	▲	▲				○																			
		TRM 551712 -GU	1,2	○	○		▲	▲	▲																							

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 0° Relief | With Insert Hole



Dimensions (mm)				
TN__	L	IC	S	D_1
1103..	11,0	6,35	3,18	2,26
1603..	16,5	9,525	3,18	3,81
1604..	16,5	9,525	4,76	3,81

⇨ D15, D22~23 ⇨ E12

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TNGG ●●●●●● ■-■■

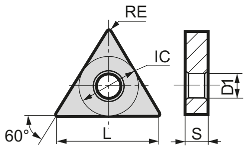
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M AC6020M	AC6030M	AC6040M	PM AC630M	K AC4010K	AC4015K	AC420K	AC405K	AC415K	H AC503U	S AC5015S	AC5025S	KS AC510U	MS AC520U	PM AC1030U	AC530U	Cermet Coated P T1500Z	T3000Z	Uncoated P T1000A	T1500A	Carbide Uncoated K G10E	S EH510	EH520	N H1
Finishing	L/RFT	**TNGG 110302 LFT**	0,2																								○	○				
		TNGG 110304 LFT	0,4																								○	○				
		TNGG 110302 RFT	0,2																								○	○				
		TNGG 110304 RFT	0,4																								○	○				
Light Cutting	L/RST	**TNGG 160302 LST**	0,2																								○	○				
		TNGG 160304 LST	0,4																								○	○				
		TNGG 160308 LST	0,8																								○	○				
		TNGG 160402 LST	0,2																								○	○				
		TNGG 160404 LST	0,4																								○	○				
		TNGG 160408 LST	0,8																								○	○				
		TNGG 160412 LST	1,2																									○				
		TNGG 160302 RST	0,2																								○	○				
		TNGG 160304 RST	0,4																								○	○				
		TNGG 160308 RST	0,8																								○	○				
		TNGG 160402 RST	0,2																								○	○				
		TNGG 160404 RST	0,4																								○	○				
		TNGG 160408 RST	0,8																								○	○				
		TNGG 160412 RST	1,2																									○				
Finishing	NSU	**TNGG 160402 NSU**	0,2																	○	○					○	●	○	○				
		TNGG 160404 NSU	0,4																	○	○					○	○	○	○				
		TNGG 160408 NSU	0,8																	○	○					○	○	○	○				
Finishing	L/RFY	**TNGG 160401 LFY**	0,1																							○		○	○				
		TNGG 160402 LFY	0,2																					○		○	○	○	○				
		TNGG 160404 LFY	0,4																					○		○	○	○	○				
		TNGG 160408 LFY	0,8																					○		○		○	○				
		TNGG 160412 LFY	1,2																							○			○				
		TNGG 160401 RFY	0,1																							○		○	○				
		TNGG 160402 RFY	0,2																		○			○		○	○	○	○				
		TNGG 160404 RFY	0,4																					○		○	○	○	○				
		TNGG 160408 RFY	0,8																					○		○		○	○				
		TNGG 160412 RFY	1,2																							○			○				
Finishing	L/RFX	**TNGG 160402 LFX**	0,2																					○		○	○	○	○				
		TNGG 160404 LFX	0,4																					○	○	○	○	○	○				
		TNGG 160408 LFX	0,8																					○									
		TNGG 160402 RFX	0,2																					○		○	●	○	○				
		TNGG 160404 RFX	0,4																					○		○	○	○	○				
		TNGG 160408 RFX	0,8																					○									

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

60° Triangle Type

0° Relief
With Insert Hole



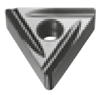
TN_ _	L	IC	S	D1
1103..	11,0	6,35	3,18	2,26
1604..	16,5	9,525	4,76	3,81
2204..	22,0	12,7	4,76	5,16

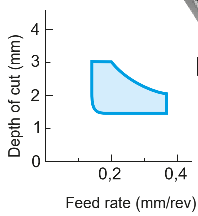
Dimensions (mm)

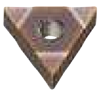
P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

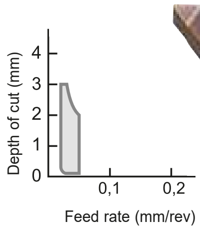
TNGG ●●●●●● ■-■■

● G-Class Double Sided Bumpy Chipbreaker


L/RUM



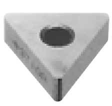

NGH



Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated P						M			P/M	K					H	S		K/S	M/S	P/M		Cermet Coated P	Cermet Uncoated			Carbide Uncoated K	S		N
Medium Cut	L/RUM	TNGG 160402 LUM	0,2																							○	●	○	○				
		TNGG 160404 LUM	0,4																							○	○	●	●				
		TNGG 160408 LUM	0,8																							○	○	○	●				
		TNGG 160412 LUM	1,2																									○	○				
		TNGG 220404 LUM	0,4																									○	○				
		TNGG 220408 LUM	0,8																									○	○				
		TNGG 160402 RUM	0,2																							○	○	○	●				
		TNGG 160404 RUM	0,4																							○	○	●	●				○
		TNGG 160408 RUM	0,8																							○	○	○	●				
		TNGG 160412 RUM	1,2																									○	○				
		TNGG 220404 RUM	0,4																									○	○				
		TNGG 220408 RUM	0,8																									○	○				
Finishing	NGH	TNGG 160402 NGH	0,2																○														
		TNGG 160404 NGH	0,4																○														
		TNGG 160408 NGH	0,8																○														

TNGA ●●●●●●

● G-Class No Chipbreaker

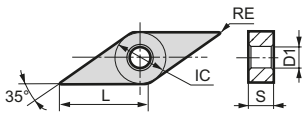


Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated P						M			P/M	K					H	S		K/S	M/S	P/M		Cermet Coated P	Cermet Uncoated			Carbide Uncoated K	S		N
Medium Cut		TNGA 110308	0,8																									○					
		TNGA 160402	0,2																○														
		TNGA 160404	0,4																○									○					
		TNGA 160408	0,8																○									○	○	○			○

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

V DIAMOND TYPE
INSERTS FOR TURNING

35° Diamond Type | 0° Relief | With Insert Hole



Dimensions (mm)				
VN__	L	IC	S	D_1
1604..	16,6	9,525	4,76	3,81

⇨ D16

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

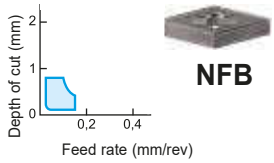
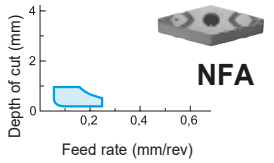
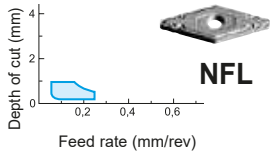
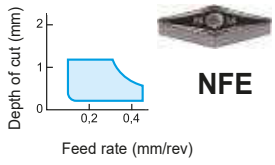
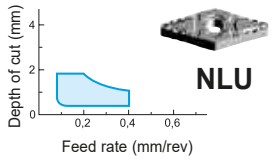
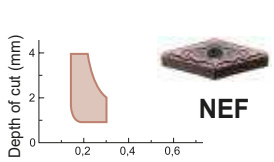
VNMA ●●●●●●

● M-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated: T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated: G10E	Carbide Uncoated: EH510	EH520	H1
Roughing		**VNMA 160404**	0,4											○	○	○	▲	▲															
		VNMA 160408	0,8											○	○	○	▲	▲															
		VNMA 160412	1,2											○	○	○	▲	▲															

VNMG ●●●●●● ■-■■

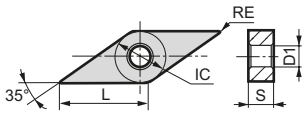
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated: T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated: G10E	Carbide Uncoated: EH510	EH520	H1
Fine Finishing	 NFB	**VNMG 160404 NFB**	0,4									○													○	○	○	○				
		VNMG 160408 NFB	0,8									○													○	○	○	○				
Fine Finishing	 NFA	**VNMG 160404 NFA**	0,4																						○	○	○	○				
		VNMG 160408 NFA	0,8																						○	○	○	○				
Fine Finishing	 NFL	**VNMG 160404 NFL**	0,4		○			▲					○													●	●	○	●				
		VNMG 160408 NFL	0,8		●			▲					○													●	●	○	●				
Fine Finishing	 NFE	**VNMG 160402 NFE**	0,2	○	○	○	▲		▲		○	○														○	○	○	○				
		VNMG 160404 NFE	0,4	○	○	○	▲		▲		○	○														○	○	○	○				
		VNMG 160408 NFE	0,8	○	○	○	▲		▲		○	○														○	○	○	○				
		VNMG 160412 NFE	1,2	○	○	○	▲		▲		○	○														○	○	○	○				
Finishing	 NLU	**VNMG 160402 NLU**	0,2								○		○													●	●	○	●				
		VNMG 160404 NLU	0,4	●	●		▲	▲			○		○													●	○	○	●				
		VNMG 160408 NLU	0,8	●	●		▲	▲			○		○													●	○	○	●				
		VNMG 160412 NLU	1,2	●			▲																											
Medium Cut	 NEF	**VNMG 160402 NEF**	0,2	○	○	○				●	●		○																	○			
		VNMG 160404 NEF	0,4	○	●	○				●	●	●	○							○	○	▲	▲							○	●		
		VNMG 160408 NEF	0,8	○	●	○				●	●	●	●							○	○	▲	▲							○	○		

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

V DIAMOND TYPE
INSERTS FOR TURNING

35° Diamond Type | 0° Relief | With Insert Hole



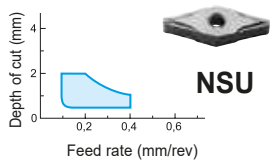
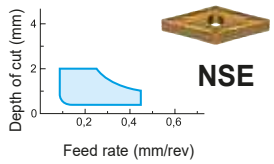
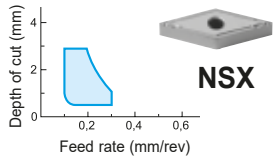
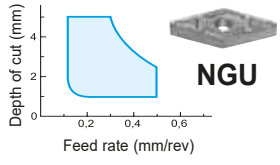
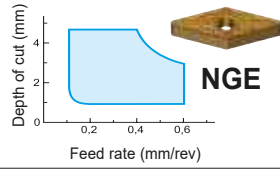
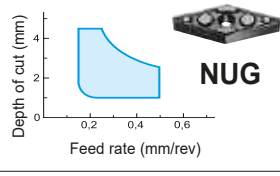
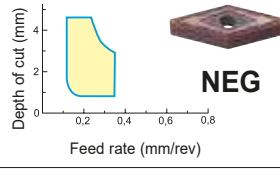
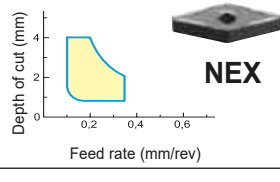
Dimensions (mm)				
VN__	L	IC	S	D_1
1604..	16,6	9,525	4,76	3,81

⇨ D16

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

VNMG ●●●●●● ■-■■

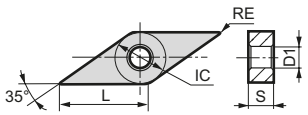
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated PM	Carbide Coated K			Carbide Coated H	Carbide Coated S			Carbide Coated KS	Carbide Coated MS	Carbide Coated PM	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NSU	**VNMG 160402 NSU**	0,2					▲		●	●	○									○		▲		○	○	○		○				
		VNMG 160404 NSU	0,4	●	●	○	▲	▲	▲	●	●	●	●							○	○	▲	▲		○	○	○	○	○				
		VNMG 160408 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●							●	○	▲	▲		○	○	○	○	○				
Medium Cut	 NSE	**VNMG 160404 NSE**	0,4	○	○	○	▲	▲																		○		○	○				
		VNMG 160408 NSE	0,8	●	●	○	▲	▲																		○		○	○				
Medium Cut	 NSX	**VNMG 160404 NSX**	0,4	○	○	○																				○			○				
		VNMG 160408 NSX	0,8	○	○	○		▲																		○			○				
Medium Cut	 NGU	**VNMG 160404 NGU**	0,4	●	●	○	▲	▲	▲	●	●	●	○	○	○						○		▲			○			○				
		VNMG 160408 NGU	0,8	●	●	○	▲	▲	▲	●	●	●	●	○	○						○		▲			○			○				
		VNMG 160412 NGU	1,2	○	●	○		▲				●		○	○						○		▲										
Medium Cut	 NGE	**VNMG 160404 NGE**	0,4	○	○	○		▲	▲																								
		VNMG 160408 NGE	0,8	○	●	○	▲	▲	▲																								
		VNMG 160412 NGE	1,2	○	○	○		▲																									
Medium Cut	 NUG	**VNMG 160404 NUG**	0,4	○	○	○		▲																									
		VNMG 160408 NUG	0,8	○	○	○		▲	▲																								
		VNMG 160412 NUG	1,2	●																													
Medium Cut	 NEG	**VNMG 160404 NEG**	0,4	○	●	○				●	●	●																		○	○		
		VNMG 160408 NEG	0,8	○	●	○				●	●	●									○									○	○		
		VNMG 160412 NEG	1,2	○	●	○				●	●	●																					
Medium Cut	 NEX	**VNMG 160404 NEX**	0,4							●	●	●	●							●	○	▲	▲										
		VNMG 160408 NEX	0,8							●	●	●	●							●	●	▲	▲		○								

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

V DIAMOND TYPE
INSERTS FOR TURNING

35° Diamond Type | 0° Relief | With Insert Hole



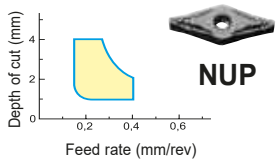
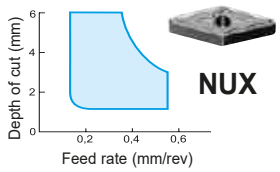
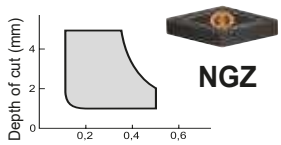
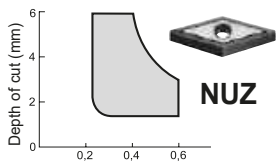
Dimensions (mm)				
VN__	L	IC	S	D_1
1604..	16,6	9,525	4,76	3,81

⇨ D16

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

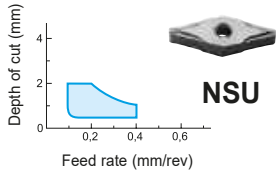
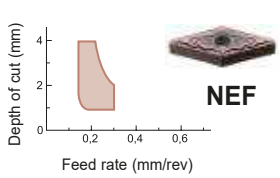
VNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	PM: AC630M	K: AC4010K	AC4015K	AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	KS/MS: AC510U	AC520U	PM: AC1030U	AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Medium Cut	 NUP	**VNMG 160404 NUP**	0,4	●	●		▲	▲	●	●		○							●		▲	▲							○			
		VNMG 160408 NUP	0,8	●	●		▲	▲	●	●	○	○							●	●	▲	▲							○			
Medium Cut	 NUX	**VNMG 160404 NUX**	0,4	○	○	○	▲	▲	▲																							
		VNMG 160408 NUX	0,8	○	○	○	▲	▲	▲																							
		VNMG 160412 NUX	1,2	○	○	○	▲	▲	▲																							
Medium Cut	 NGZ	**VNMG 160404 NGZ**	0,4											○	○	○	▲	▲														
		VNMG 160408 NGZ	0,8											●	●	○	▲	▲														
		VNMG 160412 NGZ	1,2											●	○	○	▲	▲														
Medium Cut	 NUZ	**VNMG 160404 NUZ**	0,4		○	○								○	○		▲	▲														
		VNMG 160408 NUZ	0,8		○	○								○	○		▲	▲														
		VNMG 160412 NUZ	1,2		○	○								○	○	○	▲	▲														

VNGG ●●●●●● ■-■■

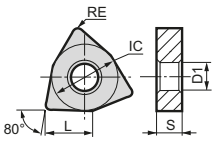
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	PM: AC630M	K: AC4010K	AC4015K	AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	KS/MS: AC510U	AC520U	PM: AC1030U	AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Finishing	 NSU	**VNGG 160402 NSU**	0,2																							○	○	○	○				
		VNGG 160404 NSU	0,4																							○	○	○	○				
		VNGG 160408 NSU	0,8																							○	○	○	○				
Medium Cut	 NEF	**VNGG 160402 NEF**	0,2																		○												
		VNGG 160404 NEF	0,4										○																				

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

W TRIGON TYPE
INSERTS FOR TURNING

80° Trigon Type | 0° Relief / With Insert Hole



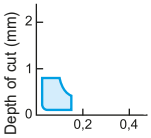
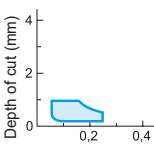
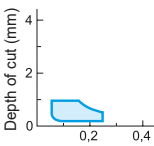
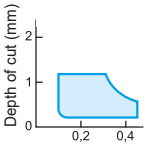
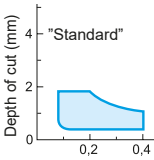
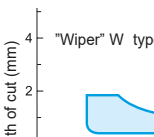
Dimensions (mm)				
WN_ _	L	IC	S	D_1
0604..	6,5	9,525	4,76	3,81
0804..	8,7	12,7	4,76	5,16

⇨ D17, D24 D42 ⇨ E13

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WNMG ●●●●●● ■-■■

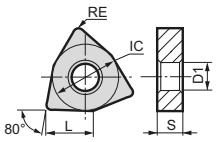
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	PM: AC630M	AC4010K	AC4015K	K: AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	KS: AC510U	MS: AC520U	PM: AC1030U	AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Fine Finishing	 NFB  Depth of cut (mm) 0 1 2 0,2 0,4 Feed rate (mm/rev)	**WNMG 060404 NFB**	0,4									○														○	○		○				
		WNMG 060408 NFB	0,8									○														○	○		○				
		WNMG 080402 NFB	0,2									○														○	○	○	○				
		WNMG 080404 NFB	0,4									○														○	○	○	○				
		WNMG 080408 NFB	0,8									○														○	○	○	○				
Fine Finishing	 NFA  Depth of cut (mm) 0 2 4 0,2 0,4 0,6 Feed rate (mm/rev)	**WNMG 080402 NFA**	0,2																							○		○	○				
		WNMG 080404 NFA	0,4																							●	○	○	●				
		WNMG 080408 NFA	0,8																							●	○	○	●				
Fine Finishing	 NFL  Depth of cut (mm) 0 2 4 0,2 0,4 0,6 Feed rate (mm/rev)	**WNMG 080404 NFL**	0,4		○			▲					○														●	○	○	●				
		WNMG 080408 NFL	0,8		○			▲					○														●	●	○	●				
Fine Finishing	 NFE  Depth of cut (mm) 0 1 2 0,2 0,4 Feed rate (mm/rev)	**WNMG 060404 NFE**	0,4	○	○	○	▲		▲		○	○														○	○		○				
		WNMG 060408 NFE	0,8	○	○	○	▲		▲		○	○														○	○		○				
		WNMG 080402 NFE	0,2	○	○	○	▲		▲		○	○														○	○	○	○				
		WNMG 080404 NFE	0,4	○	○	○	▲		▲		○	○														○	○	○	○				
		WNMG 080408 NFE	0,8	○	○	○	▲		▲		○	○														○	○	○	○				
		WNMG 080412 NFE	1,2	○	○	○	▲		▲		○	○														○	○	○	○				
Finishing	 NLU  Depth of cut (mm) "Standard" 0 2 4 0,2 0,4 0,6 Feed rate (mm/rev)	**WNMG 060404 NLU**	0,4	○	○	○																				●	○	○	●				
		WNMG 060408 NLU	0,8	○	○	○																				●	○	○	●				
		WNMG 060412 NLU	1,2	○	○	○																				●	○		●				
		WNMG 080404 NLU	0,4	●	●	○	▲	▲			○		○													●	○	○	●				
		WNMG 080408 NLU	0,8	●	●	○	▲	▲			○		○													●	○	○	●				
		WNMG 080412 NLU	1,2	○	●	○	▲	▲			○		○													●	○		●				
Finishing	 NLU-W  Depth of cut (mm) "Wiper" W type 0 2 4 0,2 0,4 0,6 Feed rate (mm/rev)	**WNMG 060404 NLU-W**	0,4	●	●		▲	▲		●	○		○				▲	▲								●			●				
		WNMG 060408 NLU-W	0,8	●	●		▲	▲		●	○		○				▲	▲								●			●				
		WNMG 080404 NLU-W	0,4	●	●		▲	▲		●	○		○				▲	▲								●	○		●				
		WNMG 080408 NLU-W	0,8	●	●		▲	▲		●	○		○				▲	▲								●	●		●				
		WNMG 080412 NLU-W	1,2	●	●		▲	▲			○		○				▲	▲								○	○		○				

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

W TRIGON TYPE
INSERTS FOR TURNING

80° Trigon Type | 0° Relief | With Insert Hole



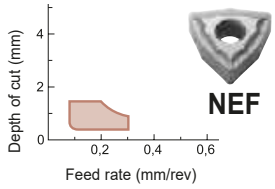
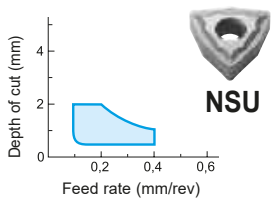
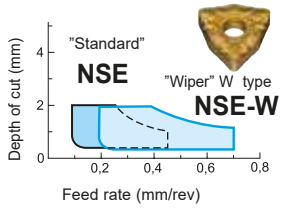
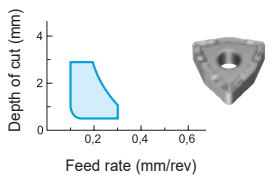
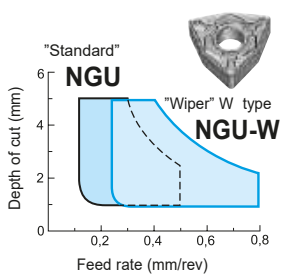
Dimensions (mm)				
WN_ _	L	IC	S	D_1
0604..	6,5	9,525	4,76	3,81
06T3..	6,5	9,525	3,97	3,81
0804..	8,7	12,7	4,76	5,16

⇨ D17, D24 D42 ⇨ E13

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WNMG ●●●●●● ■-■■

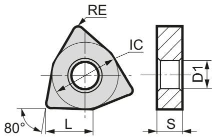
●

Application	Shape	ISO Cat. No.	RE	Carbide Coated P					M			P M	K				H	S		K S	M S	P M	Cermet Coated P				Cermet Uncoated K	Carbide Uncoated S		N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NEF	WNMG 060404 NEF	0,4	○	●	○				●	●	●								○	○		▲									
		WNMG 060408 NEF	0,8	○	●	○				●	●	●								○	○		▲									
		WNMG 080404 NEF	0,4	○	●	○				●	●	●	○							○	○	▲	▲							○	○	
		WNMG 080408 NEF	0,8	○	●	○				●	●	●	○							●	●	▲	▲							○	○	
Finishing	 NSU	WNMG 060404 NSU	0,4	●	●	○	▲	▲	▲	●	○	○	●							●	●	▲	▲									
		WNMG 060408 NSU	0,8	●	●	○	▲	▲	▲	●	○		●							●	●	▲	▲									
		WNMG 060412 NSU	1,2	○	○	○																										
		WNMG 06T304 NSU	0,4		○			▲																								
		WNMG 06T308 NSU	0,8		○			▲																								
		WNMG 080404 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●							○	●	▲	▲		○	●	○	○	●				
		WNMG 080408 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●							●	●	▲	▲		○	●	○	○	●				
		WNMG 080412 NSU	1,2	●	●	●	▲	▲	▲		●	●	●							○	○	▲	▲		○	○	●	○	○				
Finishing	 "Standard" NSE "Wiper" W type NSE-W	WNMG 080404 NSE	0,4	●	●	○	▲	▲	▲																○		○	○				
		WNMG 080408 NSE	0,8	●	●	○	▲	▲	▲																○		○	○				
		WNMG 080412 NSE	1,2	●	●	○	▲	▲	▲																							
		WNMG 060404 NSE-W	0,4	○	○	○																										
		WNMG 060408 NSE-W	0,8	○	○	○	▲	▲	▲																							
		WNMG 080404 NSE-W	0,4	●	●		▲	▲																	○							
		WNMG 080408 NSE-W	0,8	●	●		▲	▲																	○			○				
		WNMG 080412 NSE-W	1,2	●	●		▲	▲																								
Finishing		WNMG 080404 NSX	0,4	○	○	○																			○	○		○				
		WNMG 080408 NSX	0,8	●	○	●		▲	▲																○	○		○				
		WNMG 080412 NSX	1,2	○	○	○																										
Medium Cut	 "Standard" NGU "Wiper" W type NGU-W	WNMG 060404 NGU	0,4	●	●	○	▲	▲	▲	●	○	○	●	○	○																	
		WNMG 060408 NGU	0,8	●	●	○	▲	▲		●	○		●	○	○																	
		WNMG 060412 NGU	1,2	●	●	○	▲	▲			●		●	○	○																	
		WNMG 080404 NGU	0,4	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲			○		○				
		WNMG 080408 NGU	0,8	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲			○		○				
		WNMG 080412 NGU	1,2	●	●	●	▲	▲	▲	●	●	●	●	○	○						○		▲									
		WNMG 060408 NGU-W	0,8	○	○	○		▲																								
		WNMG 080408 NGU-W	0,8	●	●		▲	▲					●				▲	▲														
		WNMG 080412 NGU-W	1,2	●	●		▲	▲					●				▲	▲														

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

80° Trigon Type

0° Relief
With Insert Hole



Dimensions (mm)				
WN_ _	L	IC	S	D_1
0604..	6,5	9,525	4,76	3,81
06T3..	6,5	9,525	3,97	3,81
0804..	8,7	12,7	4,76	5,16

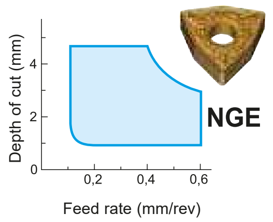
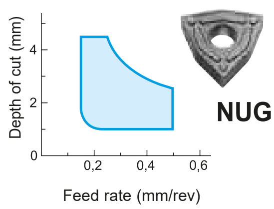
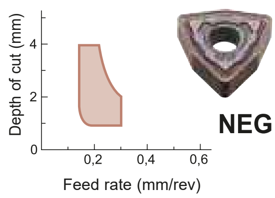
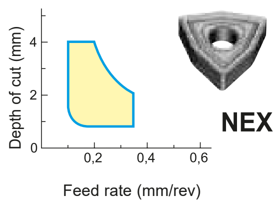
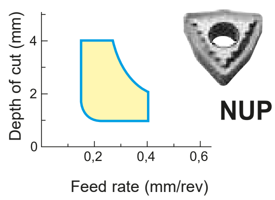
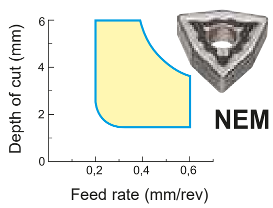
➪ D17, D24
D42

➪ E13

- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

WNMG ●●●●●● ■-■■

● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated P						M			P/M	K					H	S		K/S	M/S	P/M		Cermet Coated P		Cermet Uncoated		Carbide Uncoated K	S		N
Medium Cut	 NGE	WNMG 060408 NGE	0,8	●	○	○	▲	▲	▲																								
		WNMG 060412 NGE	1,2	●	●	○	▲	▲	▲																								
		WNMG 080404 NGE	0,4	○	●	○	▲	▲	▲																								
		WNMG 080408 NGE	0,8	●	●	●	▲	▲	▲																								
		WNMG 080412 NGE	1,2	●	●	●	▲	▲	▲																								
		WNMG 080416 NGE	1,6	●	●	○	▲	▲	▲																								
Medium Cut	 NUG	WNMG 060404 NUG	0,4		○																												
		WNMG 060408 NUG	0,8		○																												
		WNMG 06T304 NUG	0,4		○			▲																									
		WNMG 06T308 NUG	0,8		○			▲																									
		WNMG 080404 NUG	0,4		○	○		▲																									
		WNMG 080408 NUG	0,8	●	●	●		▲	▲																								
		WNMG 080412 NUG	1,2		●	●			▲																								
Medium Cut	 NEG	WNMG 060408 NEG	0,8	○	●	○				○	○	○																					
		WNMG 060412 NEG	1,2	○	●	○				○	●	●									○		▲										
		WNMG 080404 NEG	0,4	○	●	○				●	●	●																					
		WNMG 080408 NEG	0,8	○	●	○				●	●	●	●							●	●	▲	▲								●	○	
		WNMG 080412 NEG	1,2	○	●	○				●	●	●	○							○	○	▲	▲								○	○	
Medium Cut	 NEX	WNMG 060404 NEX	0,4							●			●							●	●	▲	▲										
		WNMG 060408 NEX	0,8							●			●							●	●	▲	▲										
		WNMG 080404 NEX	0,4							●	●	●	●							●	○	▲	▲										
		WNMG 080408 NEX	0,8							●	●	●	●							●	●	▲	▲		○								
		WNMG 080412 NEX	1,2							●	●	●	●							○	●	▲	▲										
Medium Cut	 NUP	WNMG 080408 NUP	0,8		●	●		▲	▲	●	●	●	●							●	●	▲	▲										
		WNMG 080412 NUP	1,2		●			▲	▲		●	●	○							○	○	▲	▲										
Medium Cut	 NEM	WNMG 080408 NEM	0,8	○	●	○				●	●	●																					
		WNMG 080412 NEM	1,2	○	●	○				●	●	●																					

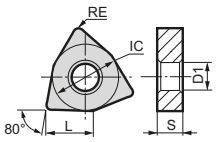
(Shape charts: Depth of cut (mm) vs. Feed rate (mm/rev), axes 0–4 / 0–6 and 0,2 / 0,4 / 0,6)

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

Neg. Inserts
C
D
K
R
S
T
V
W

W TRIGON TYPE
INSERTS FOR TURNING

80° Trigon Type | 0° Relief | With Insert Hole



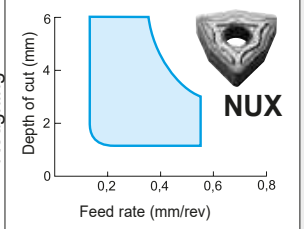
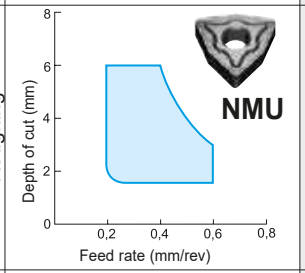
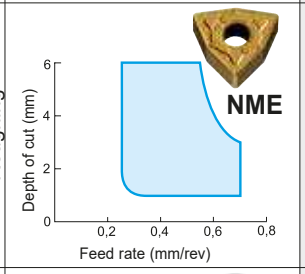
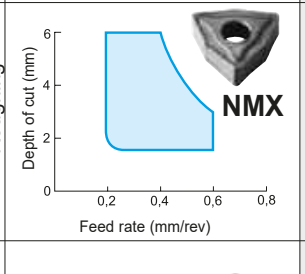
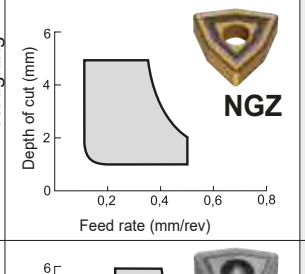
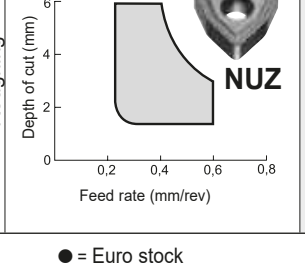
Dimensions (mm)				
WN_ _	L	IC	S	D_1
0604..	6,5	9,525	4,76	3,81
0804..	8,7	12,7	4,76	5,16

⇨ D17, D24 D42 ⇨ E13

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WNMG ●●●●●● ■-■■

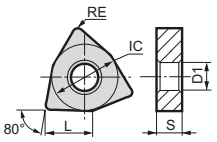
● M-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	P/M: AC630M	K: AC4010K	AC4015K	AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	K/S: AC510U	AC520U	M/S: AC1030U	P/M: AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Roughing	 NUX	**WNMG 080404 NUX**	0,4	○	●	●	▲	▲	▲																								
		WNMG 080408 NUX	0,8	●	●	●	▲	▲	▲																								
		WNMG 080412 NUX	1,2	●	●	●	▲	▲	▲																								
Roughing	 NMU	**WNMG 060408 NMU**	0,8	●	○	●	▲	▲	▲	●			●							●	●	▲	▲										
		WNMG 060412 NMU	1,2	●	●		▲	▲	▲	●			●									▲	▲										
		WNMG 080408 NMU	0,8	●	●	●	▲	▲	▲	●	●		●							○	●	▲	▲		○								
		WNMG 080412 NMU	1,2	●	●	●	▲	▲	▲	●	●		●							○	●	▲	▲		○								
		WNMG 080416 NMU	1,6	●	●		▲	▲	▲																								
Roughing	 NME	**WNMG 060408 NME**	0,8	○	○	○			▲					○	○																		
		WNMG 060412 NME	1,2	○	●	○	▲	▲	▲					○	○																		
		WNMG 080408 NME	0,8	●	●	●	▲	▲	▲					○	○																		
		WNMG 080412 NME	1,2	●	●	●	▲	▲	▲					○	○																		
		WNMG 080416 NME	1,6	●	●	○	▲	▲	▲					○	○																		
Roughing	 NMX	**WNMG 080408 NMX**	0,8		○	●		▲	▲																								
		WNMG 080412 NMX	1,2		○	●		▲	▲																								
Roughing	 NGZ	**WNMG 060408 NGZ**	0,8											○	○	●	▲	▲															
		WNMG 060412 NGZ	1,2											○	○	●	▲	▲															
		WNMG 080404 NGZ	0,4											○	○	○	▲	▲															
		WNMG 080408 NGZ	0,8											○	●	●	▲	▲															
		WNMG 080412 NGZ	1,2											○	●	●	▲	▲															
Roughing	 NUZ	**WNMG 080404 NUZ**	0,4		○									○	○	○	▲	▲															
		WNMG 080408 NUZ	0,8		○									○	●	●	▲	▲															
		WNMG 080412 NUZ	1,2		○									●	○	○	▲	▲															

● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

W TRIGON TYPE
INSERTS FOR TURNING

80° Trigon Type | 0° Relief | With Insert Hole



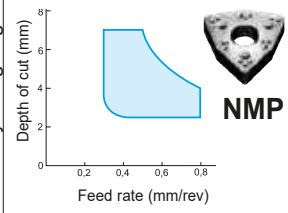
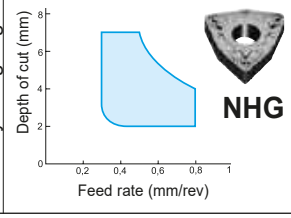
Dimensions (mm)				
WN_ _	L	IC	S	D_1
0804..	8,7	12,7	4,76	5,16

⇨ D17, D24 ⇨ E13

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WNMM ●●●●●● ■-■■

● M-Class One Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated P				Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N	
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Heavy Roughing	 **NMP**	**WNMM 080408 NMP**	0,8	●	●	●	▲	▲	▲				●																				
		WNMM 080412 NMP	1,2	●	●	●	▲	▲	▲				●																				
Heavy Roughing	 **NHG**	**WNMM 080408 NHG**	0,8				▲	▲	▲				●																				
		WNMM 080412 NHG	1,2	●			▲	▲	▲				●																				

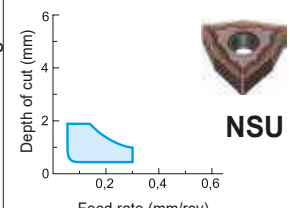
WNMA ●●●●●●

● M-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated P				Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N	
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing		**WNMA 080408**	0,8											○	●	●	▲	▲																
		WNMA 080412	1,2											○	●	●	▲	▲																
		WNMA 080416	1,6											○	●	●	▲	▲																

WNGG ●●●●●● ■-■■

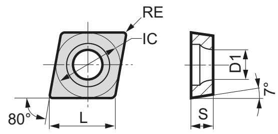
● G-Class Double Sided Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated P				Carbide Coated K				Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N	
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 **NSU**	**WNGG 080404 NSU**	0,4																							○	○	○	○					

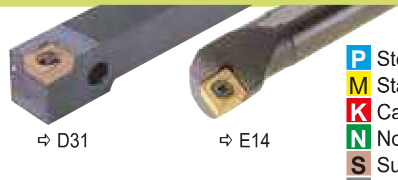
● = Euro stock
○ = Stock item in Japan
▲ = To be replaced by new item

80° Diamond Type

7° Relief
With Insert Hole



Dimensions (mm)				
CC_ _	L	IC	S	D_1
03X1..	3,55	3,5	1,4	1,9
04X1..	4,37	4,3	1,8	2,3
0602..	6,4	6,35	2,38	2,8
09T3..	9,7	9,525	3,97	4,4

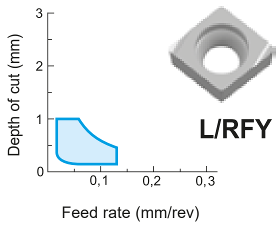


- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

CCET ●●●●●● ●-■■

● E-Class

Application: Finishing. Shape: L/RFY.



Grades: Carbide Coated (AC8015P – AC530U); Cermet Coated (T1500Z, T3000Z), Cermet Uncoated (T1000A, T1500A); Carbide Uncoated (G10E, EH510, EH520, H1).

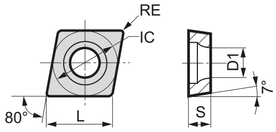
ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
CCET 03X1003 LFY	0,03																						○			○	○				
CCET 03X101 LFY	0,1																						○			○	○				
CCET 03X102 LFY	0,2																						○			○	○				
CCET 03X104 LFY	0,4																						○			○	○				
CCET 04X1003 LFY	0,03																						○			○	○				
CCET 04X101 LFY	0,1																						○			○	○				
CCET 04X102 LFY	0,2																						○			○	○				
CCET 04X104 LFY	0,4																						○			○					
CCET 060201 LFY	0,1																									○	○				
CCET 060202 LFY	0,2																									○	○				
CCET 09T301 LFY	0,1																									○	○				
CCET 09T302 LFY	0,2																									○	○				
CCET 03X1003 RFY	0,03																									○	○				
CCET 03X101 RFY	0,1																									○	○				
CCET 03X102 RFY	0,2																									○	○				
CCET 03X104 RFY	0,4																									○	○				
CCET 04X1003 RFY	0,03																									○	○				
CCET 04X101 RFY	0,1																									○	○				
CCET 04X102 RFY	0,2																									○	○				
CCET 04X104 RFY	0,4																									○	○				
CCET 060201 RFY	0,1																									○	○				
CCET 060202 RFY	0,2																									○	○				
CCET 09T301 RFY	0,1																									○	○				
CCET 09T302 RFY	0,2																									○	○				

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

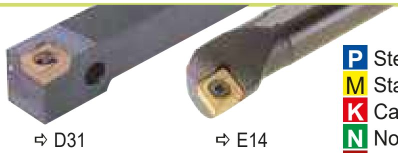
7° Positive Inserts

80° Diamond Type

7° Relief
With Insert Hole



Dimensions (mm)				
CC_ _	L	IC	S	D_1
03X1..	3,55	3,5	1,4	1,9
04X1..	4,37	4,3	1,8	2,3
0602..	6,4	6,35	2,38	2,8
09T3..	9,7	9,525	3,97	4,4

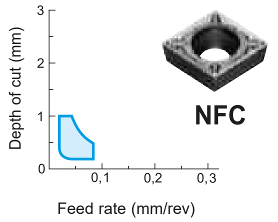
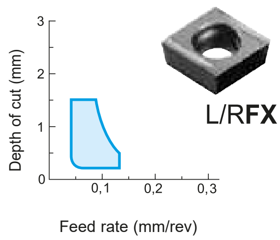
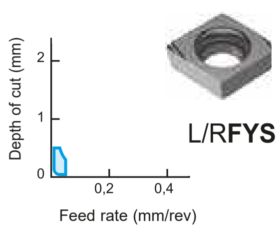


P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

CCGT ●●●●●● ●-■■

● G-Class

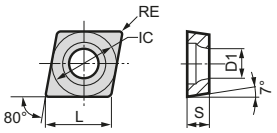
Grade groups: Carbide Coated — P: AC8015P, AC8025P, AC8035P, AC810P, AC820P, AC830P; M: AC6020M, AC6030M, AC6040M; P/M: AC630M; K: AC4010K, AC4015K, AC420K, AC405K, AC415K; H: AC503U; S: AC5015S, AC5025S; K/S: AC510U; M/S: AC520U; P/M: AC1030U, AC530U. Cermet (P) — Coated: T1500Z, T3000Z; Uncoated: T1000A, T1500A. Carbide Uncoated — K: G10E; S: EH510, EH520; N: H1.

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NFC	CCGT 060201M NFC	<0,1																					●	●			○	○				
		CCGT 060202M NFC	<0,2																					●	●			●	○				
		CCGT 060204M NFC	<0,4																					●	●			○	○				
		CCGT 09T301M NFC	<0,1																					●	●			○	○				
		CCGT 09T302M NFC	<0,2																					●	●			○	○				
		CCGT 09T304M NFC	<0,4																					●	●			○	○				
Finishing	 L/RFX	CCGT 0602003 LFX	0,03																					○	○			○					
		CCGT 060201 LFX	0,1																					○	○	●		○	●				
		CCGT 060202 LFX	0,2																					●	●	●		○	●				
		CCGT 060204 LFX	0,4																					●	●	●		●	●				
		CCGT 09T3003 LFX	0,03																					○	○								
		CCGT 09T301 LFX	0,1																					●	○	●		○	●				
		CCGT 09T302 LFX	0,2																					●	●	●		○	●				
		CCGT 09T304 LFX	0,4																					●	●	●		●	●				
		CCGT 09T308 LFX	0,8																					○	○								
		CCGT 0602003 RFX	0,03																					○	○			○					
		CCGT 060201 RFX	0,1																					○	○	●		○	●				
		CCGT 060202 RFX	0,2																					●	●	●		●	●				
		CCGT 060204 RFX	0,4																					●	●	●		●	●				
		CCGT 09T3003 RFX	0,03																					●	●			○					
		CCGT 09T301 RFX	0,1																					●	●	●		○	●				
		CCGT 09T302 RFX	0,2																					●	●	●		○	●				
		CCGT 09T304 RFX	0,4																					●	●	●		●	●				
		CCGT 09T308 RFX	0,8																					○	○								
Finishing	 L/RFYS	CCGT 03X1003 LFYS	0,03																					○									
		CCGT 03X101 LFYS	0,1																					○									
		CCGT 03X102 LFYS	0,2																					○									
		CCGT 03X104 LFYS	0,4																					○									
		CCGT 04X1003 LFYS	0,03																					○									
		CCGT 04X101 LFYS	0,1																					○									
		CCGT 04X102 LFYS	0,2																					○									
		CCGT 04X104 LFYS	0,4																					○									
		CCGT 03X1003 RFYS	0,03																					○									
		CCGT 03X101 RFYS	0,1																					○									
		CCGT 03X102 RFYS	0,2																					○									
		CCGT 03X104 RFYS	0,4																					○									
		CCGT 04X1003 RFYS	0,03																					○									
		CCGT 04X101 RFYS	0,1																					○									
		CCGT 04X102 RFYS	0,2																					○									
		CCGT 04X104 RFYS	0,4																					○									

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 7° Relief | With Insert Hole



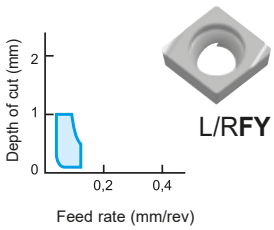
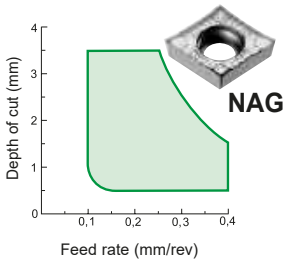
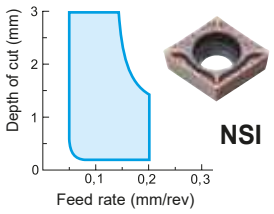
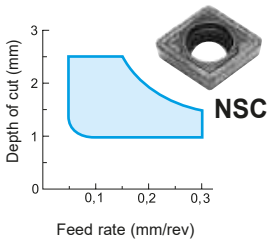
Dimensions (mm)				
CC_ _	L	IC	S	D_1
03X1..	3,55	3,5	1,4	1,9
04X1..	4,37	4,3	1,8	2,3
0602..	6,4	6,35	2,38	2,8
0903..	9,7	9,525	3,18	4,4
09T3..	9,7	9,525	3,97	4,4
1204..	12,9	12,7	4,76	5,5

⇨ E14

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

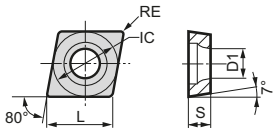
CCGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated T1500Z	T3000Z	Cermet Uncoated T1000A	T1500A	Carbide Uncoated G10E	EH510	EH520	H1
Finishing	 L/RFY	**CCGT 03X101 LFY**	0,1																				○	○								
		CCGT 03X102 LFY	0,2																				○	○			○					
		CCGT 03X104 LFY	0,4																				○	○								
		CCGT 04X101 LFY	0,1																				○	○								
		CCGT 04X102 LFY	0,2																				○	○								
		CCGT 04X104 LFY	0,4																				○	○								
		CCGT 03X101 RFY	0,1																				○	○								
		CCGT 03X102 RFY	0,2																				○	○								
		CCGT 03X104 RFY	0,4																				○	○								
		CCGT 04X101 RFY	0,1																				○	○								
		CCGT 04X102 RFY	0,2																				○	○								
		CCGT 04X104 RFY	0,4																				○	○								
Light Cut	 NAG	**CCGT 060202 NAG**	0,2																													●
		CCGT 060204 NAG	0,4																													●
		CCGT 09T302 NAG	0,2																													●
		CCGT 09T304 NAG	0,4																													●
		CCGT 09T308 NAG	0,8																													●
		CCGT 120404 NAG	0,4																													●
		CCGT 120408 NAG	0,8																													●
Light cut	 NSI	**CCGT 09T301M NSI**	<0,1										○							●	●	▲	▲	●	●	●		○		○			
		CCGT 09T302M NSI	<0,2										○							●	●	▲	▲	●	●	●		○					
		CCGT 09T304M NSI	<0,4										○							●	●	▲	▲	●	●	●		○		○			
Light cut	 NSC	**CCGT 0602003 NSC**	0,03																					○	○	○		○		○			
		CCGT 09T3003 NSC	0,03																					●	●	○		○		○			
		CCGT 060201M NSC	<0,1																					○	○	●		○		●			
		CCGT 060202M NSC	<0,2																					●	●	●		●		●			
		CCGT 060204M NSC	<0,4																					●	●	●				●			
		CCGT 080201M NSC	<0,1																							○		○		○			
		CCGT 080202M NSC	<0,2																							○		○		○			
		CCGT 090301M NSC	<0,1																							○		○		○			
		CCGT 090302M NSC	<0,2																							○		○		○			
		CCGT 09T301M NSC	<0,1																					●	●	●		○		●			
		CCGT 09T302M NSC	<0,2																					●	●	●		●		●			
		CCGT 09T304M NSC	<0,4																					●	●	●				●			
		CCGT 09T308M NSC	<0,8																					●	●	●				●			

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

80° Diamond Type | 7° Relief | With Insert Hole



Dimensions (mm)				
CC__	L	IC	S	D_1
0602..	6,4	6,35	2,38	2,8
09T3..	9,7	9,525	3,97	4,4
1204..	12,9	12,7	4,76	5,5

⇨ D31 ⇨ E14

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

CCMT ●●●●●● ●-■■

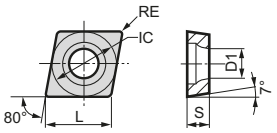
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M		Carbide Coated K			Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	NFB	CCMT 060202 NFB	0,2																					○	●	○	○	●				
		CCMT 060204 NFB	0,4																					○	●	○	●	●				
		CCMT 09T304 NFB	0,4																					○	●	○	●	●				
		CCMT 09T308 NFB	0,8																					○	●	○	○	●				
Finishing ~ Light Cut	NFP	CCMT 060202 NFP	0,2																						▲	▲	▲	▲				
		CCMT 060204 NFP	0,4																						▲	▲	▲	▲				
		CCMT 060208 NFP	0,8																						▲	▲	▲	▲				
		CCMT 09T302 NFP	0,2																						▲	▲	▲	▲				
		CCMT 09T304 NFP	0,4																						▲	▲	▲	▲				
		CCMT 09T308 NFP	0,8																						▲	▲	▲	▲				
		CCMT 120404 NFP	0,4																						▲			▲				
		CCMT 120408 NFP	0,8																						▲			▲				
Finishing	NLU	CCMT 060202 NLU	0,2	●	●		▲	▲		●	●	●	○											●	○	○	○	○				
		CCMT 060204 NLU	0,4	●	●		▲	▲		●	●	●	○											●	○	●	○	○				
		CCMT 09T302 NLU	0,2							●														●		●						
		CCMT 09T304 NLU	0,4	●	●		▲	▲		●	●	●	○											●	○	●	○	○				
		CCMT 09T308 NLU	0,8	●	●		▲	▲		●	●	●	○											●	○	○	○	○				
	NLU-W	CCMT 09T304 NLU-W	0,4	●	●		▲	▲		●			●				▲	▲						●	●	●		○				
		CCMT 09T308 NLU-W	0,8	●	●		▲	▲		●			○				▲	▲						●	●	●		○				
Light Cut	NLB	CCMT 060202 NLB	0,2		○	○		▲	▲	○	●	●													●	○		●				
		CCMT 060204 NLB	0,4		○	○		▲	▲	○	●	●													●	●		●				
		CCMT 060208 NLB	0,8		○	○		▲	▲	○	●	●													●	○		●				
		CCMT 09T302 NLB	0,2		○	○		▲	▲	○	●	●													●	○		●				
		CCMT 09T304 NLB	0,4		○	○		▲	▲	○	●	●													●	●		●				
		CCMT 09T308 NLB	0,8		○	○		▲	▲	○	●	●													●	○		●				
Light Cut	NSU	CCMT 060202 NSU	0,2	●	●	●	▲	▲	▲	●	●	●	●				▲	▲			●	▲	▲		●	●	●	○	●				
		CCMT 060204 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲		●	●	●	○	●				
		CCMT 060208 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●												●	●	●	○	●				
		CCMT 09T302 NSU	0,2	○	●	○		▲	▲	●	●	●	○												●	●	○	●	●				
		CCMT 09T304 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲		●	●	●	○	●				
		CCMT 09T308 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲		●	●	●	●	●				
		CCMT 120404 NSU	0,4	●	●	●	▲	▲	▲	●			●				▲	▲							●								
		CCMT 120408 NSU	0,8	●	●	●	▲	▲	▲	●			●				▲	▲							●								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 7° Relief | With Insert Hole



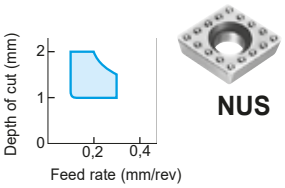
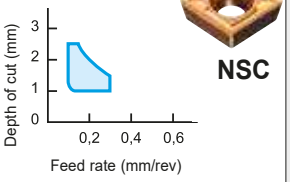
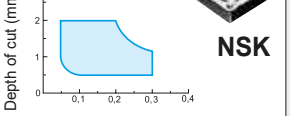
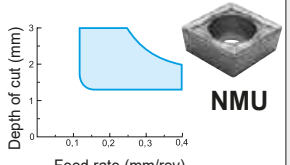
Dimensions (mm)				
C_ _ _	L	IC	S	D_1
0602..	6,4	6,35	2,38	2,8
0803..	8,0	7,94	3,18	3,4
0903..	9,7	9,525	3,18	4,4
09T3..	9,7	9,525	3,97	4,4
1204..	12,9	12,7	4,76	5,5

⇨ E15

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

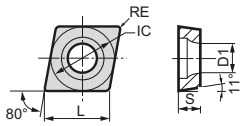
CCMT/-W ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P M	K			H	S	K S	M S	P M	Cermet Coated P				Carbide Uncoated K	S	N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut	 NUS	**CCMT 09T308 NUS**	0,8			●																									
Light Cut	  NSC	**CCMT 060204 NSC**	0,4		❍																						❍			
		CCMT 080304 NSC	0,4		●			▲																						
		CCMT 090304 NSC	0,4																								❍			
		CCMT 090308 NSC	0,8		❍			▲																						
		CCMT 120408 NSC	0,8		❍			▲	▲																					
Light Cut	  NSK	**CCMT 060204 NSK**	0,4	●	●	●		▲	▲																					
		CCMT 060208 NSK	0,8	❍	●	●		▲	▲																					
		CCMT 060212 NSK	1,2						▲																					
		CCMT 09T304 NSK	0,4	❍	●	●		▲	▲																					
		CCMT 09T308 NSK	0,8	❍	●	●		▲	▲																					
		CCMT 120404 NSK	0,4		●	●		▲	▲																					
		CCMT 120408 NSK	0,8		●	●		▲	▲																					
		CCMT 120412 NSK	1,2					▲																						
Roughing	 NMU	**CCMT 09T304 NMU**	0,4	●	●	●	▲	▲	▲	●	●		●	❍	●	●	▲	▲												
		CCMT 09T308 NMU	0,8	●	●	●	▲	▲	▲	●	●		●	●	●	●	▲	▲												
Roughing		**CCMW 060204**	0,4											❍	❍			▲												
		CCMW 09T304	0,4											❍	❍	❍	▲	▲												
		CCMW 09T308	0,8											❍	●	❍	▲	▲												

● = Euro stock
❍ = Japan stock
▲ = To be replaced by new item

80° Diamond Type | 11° Relief | With Insert Hole



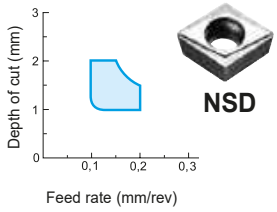
Dimensions (mm)				
CP__	L	IC	S	D_1
0802..	8,0	7,94	2,38	3,4
0903..	9,7	9,525	3,18	4,4
1204..	12,9	12,7	4,76	5,5

⇨ E15

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

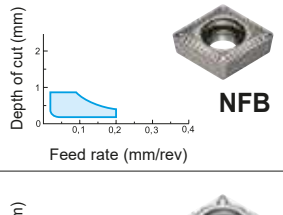
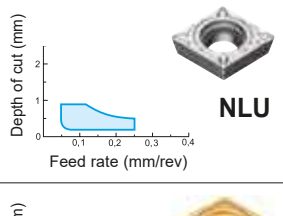
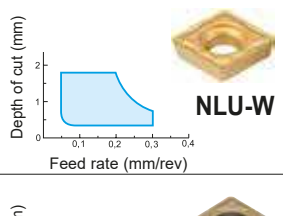
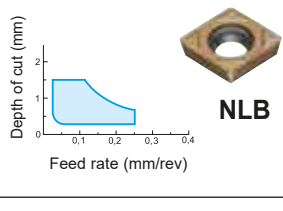
CPGT ●●●●●● NSD

● G-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated				Carbide Uncoated			
				P						M				K					H	S						P				K	S		N
Finishing ~ Light Cut	 NSD	**CPGT 080202 NSD**	0,2																	○	○								●	●			
		CPGT 080204 NSD	0,4																	○	○					●	○		●	●			
		CPGT 080208 NSD	0,8																							○			○	○			
		CPGT 090302 NSD	0,2																										○	○			
		CPGT 090304 NSD	0,4																	○						○	○		●	●			
		CPGT 090308 NSD	0,8																							○			○	○			
		CPGT 120402 NSD	0,2																										○	○			
		CPGT 120404 NSD	0,4																	○						○			○	○			
		CPGT 120408 NSD	0,8																										○	○			

CPMT ●●●●●● ●-■■

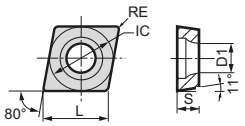
● M-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated				Carbide Uncoated			
				P						M				K					H	S						P				K	S		N
Finishing	 NFB	**CPMT 080204 NFB**	0,4																						○	●	○	○	○				
		CPMT 090304 NFB	0,4																						○	●	○	○	○				
		CPMT 090308 NFB	0,8																						○	●	○	○	○				
Finishing	 NLU	**CPMT 080204 NLU**	0,4	○	○																					○	○	○	○				
		CPMT 090304 NLU	0,4	○	○						○	○														○	○	○	○				
		CPMT 090308 NLU	0,8	○	○						○	○														○	○	○	○				
	 NLU-W	**CPMT 090304 NLU-W**	0,4	○	○																					○	○		○				
		CPMT 090308 NLU-W	0,8	○	○																					○	○		○				
Light Cut	 NLB	**CPMT 080204 NLB**	0,4		○	○		▲	▲	○	○	○														○	○						
		CPMT 090304 NLB	0,4		○	○		▲	▲	○	●	●														○	○		○				
		CPMT 090308 NLB	0,8		○	○		▲		○	●	●														○	○		○				

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

C DIAMOND TYPE
INSERTS FOR TURNING

80° Diamond Type | 11° Relief | With Insert Hole



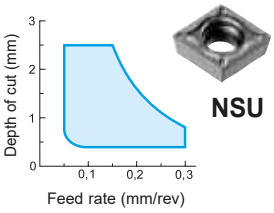
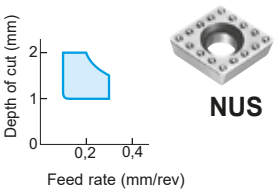
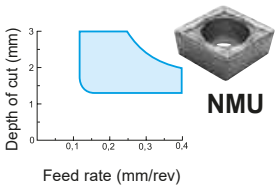
Dimensions (mm)				
CP_ _	L	IC	S	D_1
0602..	6,4	6,35	2,38	2,8
0802..	8,0	7,94	2,38	3,4
0903..	9,7	9,525	3,18	4,4
09T3..	9,7	9,525	3,97	4,4
1204..	12,9	12,7	4,76	5,5
1604..	16,1	15,875	4,76	6,5

⇨ E15

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

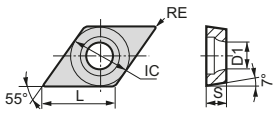
CPMT/-H ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut	 NSU	**CPMT 060204 NSU**	0,4	○																												
		CPMT 060208 NSU	0,8	○																												
		CPMT 080204 NSU	0,4	○	○	○	▲	▲	▲				○												○		○	○				
		CPMT 080208 NSU	0,8	○	○	○	▲	▲	▲				○												○	○	○	○				
		CPMT 090304 NSU	0,4	○	○	○	▲	▲	▲	○	○		○												○	○	○	○				
		CPMT 090308 NSU	0,8	○	●	○	▲	▲	▲	○	○		○												○	○	○	○				
Light Cut	 NUS	**CPMT 060204 NUS**	0,4			●							○																			
		CPMT 080308 NUS	0,8			●							○																			
		CPMT 09T308 NUS	0,8			●							○																			
		CPMH 120408 NUS	0,8			●																										
		CPMH 160408 NUS	0,8										○																			
Light -Medium Cut	 NMU	**CPMT 080204 NMU**	0,4	○	○									○	○																	
		CPMT 080208 NMU	0,8	○	○									○	○																	
		CPMT 090304 NMU	0,4	○	○					○	○			○	○																	
		CPMT 090308 NMU	0,8	○	○					○	○			○	○																	

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

55° Diamond Type | 7° Relief | With Insert Hole



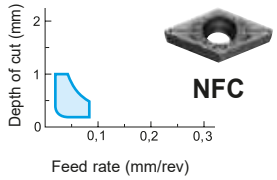
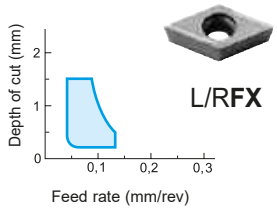
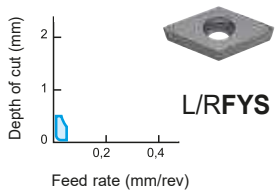
Dimensions (mm)				
DC__	L	IC	S	D_1
0702..	7,7	6,35	2,38	2,8
11T3..	11,6	9,525	3,97	4,4

➪ D32–33 ➪ E16–17

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

DCGT ●●●●●● ●-■■

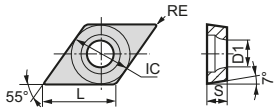
● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NFC	**DCGT 070201M NFC**	<0,1																	❍				●	●			❍	❍				
		DCGT 070202M NFC	<0,2																	❍				●	●			❍	❍				
		DCGT 070204M NFC	<0,4																	❍				●	●			❍	❍				
		DCGT 11T301M NFC	<0,1																	❍				●	●			❍	❍				
		DCGT 11T302M NFC	<0,2																	❍				●	●			❍	❍				
		DCGT 11T304M NFC	<0,4																	❍				●	●			❍	❍				
Finishing	 L/R**FX**	**DCGT 0702003 LFX**	0,03																	❍				❍	❍								
		DCGT 070201 LFX	0,1																	❍			▲	●	●	●		❍	●				
		DCGT 070202 LFX	0,2																	❍			▲	●	●	●		❍	●				
		DCGT 070204 LFX	0,4																					●	●	●		●	●				
		DCGT 11T3003 LFX	0,03																	❍			▲	❍	❍								
		DCGT 11T301 LFX	0,1																	❍			▲	●	●	●		❍	●				
		DCGT 11T302 LFX	0,2																	❍			▲	●	●	●		●	●				
		DCGT 11T304 LFX	0,4																					●	●	●		●	●				
		DCGT 0702003 RFX	0,03																	❍				❍	❍								
		DCGT 070201 RFX	0,1																	❍			▲	●	●	●		●	●				
		DCGT 070202 RFX	0,2																	❍			▲	●	●	●		❍	●				
		DCGT 070204 RFX	0,4																					●	●	●		●	●				
		DCGT 11T3003 RFX	0,03																	❍			▲	❍	❍								
		DCGT 11T301 RFX	0,1																	❍			▲	●	●	●		❍	●				
		DCGT 11T302 RFX	0,2																	❍			▲	●	●	●		●	●				
		DCGT 11T304 RFX	0,4																					●	●	●		●	●				
Finishing	 L/R**FYS**	**DCGT 0702003 LFYS**	0,03																					❍									
		DCGT 070201 LFYS	0,1																					❍									
		DCGT 070202 LFYS	0,2																					❍									
		DCGT 070204 LFYS	0,4																					❍									
		DCGT 11T3003 LFYS	0,03																					❍									
		DCGT 11T301 LFYS	0,1																					❍									
		DCGT 11T302 LFYS	0,2																					❍									
		DCGT 11T304 LFYS	0,4																					❍									
		DCGT 0702003 RFYS	0,03																					❍									
		DCGT 070201 RFYS	0,1																					❍									
		DCGT 070202 RFYS	0,2																					❍									
		DCGT 070204 RFYS	0,4																					❍									
		DCGT 11T3003 RFYS	0,03																					❍									
		DCGT 11T301 RFYS	0,1																					❍									
		DCGT 11T302 RFYS	0,2																					❍									
		DCGT 11T304 RFYS	0,4																					❍									

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 7° Relief | With Insert Hole



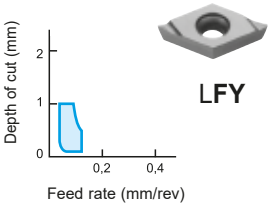
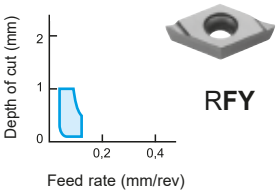
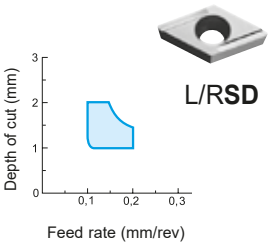
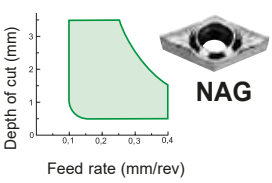
Dimensions (mm)				
DC_ _	L	IC	S	D_1
0702..	7,7	6,35	2,38	2,8
11T3..	11,6	9,525	3,97	4,4

⇨ D32–33 ⇨ E16–17

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

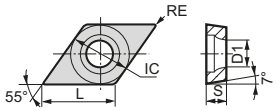
DCGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Coated P	Cermet Coated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 LFY	**DCGT 0702003 LFY**	0,03																					○							
		DCGT 070201 LFY	0,1																					○							
		DCGT 070202 LFY	0,2																					○							
		DCGT 070204 LFY	0,4																					○							
		DCGT 11T3003 LFY	0,03																					○							
		DCGT 11T301 LFY	0,1																					○							
		DCGT 11T302 LFY	0,2																					○							
		DCGT 11T304 LFY	0,4																					○	○						
Finishing	 RFY	**DCGT 0702003 RFY**	0,03																		○			○							
		DCGT 070201 RFY	0,1																					○							
		DCGT 070202 RFY	0,2																					○							
		DCGT 070204 RFY	0,4																					○							
		DCGT 11T3003 RFY	0,03																		○			○	○						
		DCGT 11T301 RFY	0,1																					○	○						
		DCGT 11T302 RFY	0,2																					○	○						
		DCGT 11T304 RFY	0,4																					○	○		○				
Finishing ~ Light Cut	 L/RSD	**DCGT 070202 LSD**	0,2																							○		○	○				
		DCGT 070204 LSD	0,4																							○		○	○				
		DCGT 11T304 LSD	0,4																							○		○	○				
		DCGT 11T308 LSD	0,8																							○		○	○				
		DCGT 070202 RSD	0,2																							○		○	○				
		DCGT 070204 RSD	0,4																							○		○	○				
		DCGT 11T304 RSD	0,4																							○		○	○				
		DCGT 11T308 RSD	0,8																							○		○	○				
Light Cut	 NAG	**DCGT 070202 NAG**	0,2																														●
		DCGT 070204 NAG	0,4																														●
		DCGT 11T302 NAG	0,2																														●
		DCGT 11T304 NAG	0,4																														●
		DCGT 11T308 NAG	0,8																														●

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

55° Diamond Type | 7° Relief | With Insert Hole



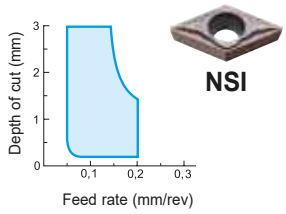
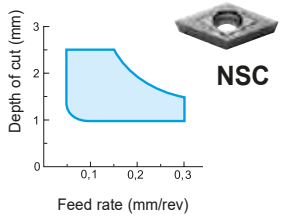
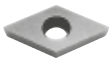
Dimensions (mm)				
DC__	L	IC	S	D_1
0702..	7,7	6,35	2,38	2,8
0902..	9,7	7,94	2,38	3,4
1103..	11,6	9,525	3,18	4,4
11T3..	11,6	9,525	3,97	4,4

➪ D32–33 ➪ E16–17

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

DCGT/-W ●●●●●● ●-■■

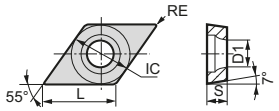
● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M		Carbide Coated K			Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut	 NSI	**DCGT 070201M NSI**	<0,1										○							●	●	▲	▲	●	●	●		○					
		DCGT 070202M NSI	<0,2										○							●	●	▲	▲	●	●	●		○					
		DCGT 070204M NSI	<0,4										○							●	●	▲	▲	●	●	●		○	○				
		DCGT 11T301M NSI	<0,1										○							●	●	▲	▲	●	●	●		○					
		DCGT 11T302M NSI	<0,2										○							●	●	▲	▲	●	●	●		○					
		DCGT 11T304M NSI	<0,4										○							●	●	▲	▲	●	●	●		○					
		DCGT 11T308M NSI	<0,8										○							●	●	▲	▲	●	●	●		○	○				
Light cut	 NSC	**DCGT 0702003 NSC**	0,03																					○	○	○		○	○				
		DCGT 11T3003 NSC	0,03																					○	○	●		○	○				
		DCGT 070201M NSC	<0,1																					●	●	●		○	●				
		DCGT 070202M NSC	<0,2																					●	●	●		○	●				
		DCGT 070204M NSC	<0,4																					●	●	●		●	●				
		DCGT 090201M NSC	<0,1																									○	○				
		DCGT 090202M NSC	<0,2																									○	○				
		DCGT 110301M NSC	<0,1																									○	○				
		DCGT 110302M NSC	<0,2																							●		○	●				
		DCGT 11T301M NSC	<0,1																					●	●	●		○	●				
		DCGT 11T302M NSC	<0,2																					●	●	●		●	●				
		DCGT 11T304M NSC	<0,4																					●	●	●		●	●				
		DCGT 11T308M NSC	<0,8																					●	●	●		●	●				
Light Cut		**DCGW 070202**	0,2																○														
		DCGW 070204	0,4																○														
		DCGW 070208	0,8																○														
		DCGW 11T302	0,2																○														
		DCGW 11T304	0,4																○														
		DCGW 11T308	0,8																○														

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

D DIAMOND TYPE
INSERTS FOR TURNING

55° Diamond Type | 7° Relief | With Insert Hole



Dimensions (mm)				
DC_ _	L	IC	S	D_1
0702..	7,7	6,35	2,38	2,8
11T3..	11,6	9,525	3,97	4,4

⇨ D32–33 ⇨ E16–17

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

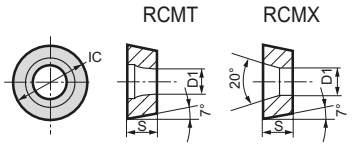
DCM_ ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M AC6020M	AC6030M	AC6040M	PM AC630M	K AC4010K	AC4015K	AC420K	AC405K	AC415K	H AC503U	S AC5015S	AC5025S	KS AC510U	MS AC520U	PM AC1030U	AC530U	Cermet Coated P T1500Z	T3000Z	Uncoated P T1000A	T1500A	Carbide Uncoated K G10E	S EH510	EH520	N H1
Finishing	NFB	DCMT 070202 NFB	0,2																						○	●	○	○	●				
		DCMT 070204 NFB	0,4																						○	●	○	●	●				
		DCMT 070208 NFB	0,8																						○	●	●	○	●				
		DCMT 11T302 NFB	0,2																						○	●	●	●	●				
		DCMT 11T304 NFB	0,4																						○	●	●	●	●				
		DCMT 11T308 NFB	0,8																						○	●	●	●	●				
Finishing	NFP	DCMT 070202 NFP	0,2																							▲	▲		▲				
		DCMT 070204 NFP	0,4																							▲	▲	▲	▲				
		DCMT 11T302 NFP	0,2																							▲	▲		▲				
		DCMT 11T304 NFP	0,4																							▲	▲	▲	▲				
		DCMT 11T308 NFP	0,8																							▲	▲	▲	▲				
		DCMT 11T312 NFP	1,2																							▲	▲		▲				
Finishing	NLU	DCMT 070202 NLU	0,2	●	○		▲	▲			●	●	○												●	○	●	○	○				
		DCMT 070204 NLU	0,4	●	●		▲	▲		●	●	●	○												●	○	○	○	○				
		DCMT 11T302 NLU	0,2	●	●		▲	▲		●		●	●												●	○	●	○	○				
		DCMT 11T304 NLU	0,4	●	●		▲	▲		●	●	●	●												●	●	●	○	○				
		DCMT 11T308 NLU	0,8	●	●		▲	▲		●	●	●	●												●	○	●	○	○				
Light Cut	NLB	DCMT 070202 NLB	0,2		○	○		▲	▲	○	●	●														●	●		●				
		DCMT 070204 NLB	0,4		○	○		▲	▲	○	●	●														●	○		●				
		DCMT 070208 NLB	0,8		○	○		▲	▲	○	●	●														●	●		●				
		DCMT 11T302 NLB	0,2		○	○		▲	▲	○	●	●														●	●		●				
		DCMT 11T304 NLB	0,4		○	○		▲	▲	○	●	●														●	●		●				
		DCMT 11T308 NLB	0,8		○	○		▲	▲	○	●	●														●	○		●				
Light Cut	NSU	DCMT 070202 NSU	0,2	●	●	●	▲	▲	▲	●	●	●	○				▲	▲		●	●	▲	▲		●	●	○	●	●				
		DCMT 070204 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●				▲	▲			●	▲	▲		●	●	●	○	●				
		DCMT 070208 NSU	0,8	●	●	●	▲	▲	▲	●	●	○	●				▲	▲							●	●	○	○	○				
		DCMT 11T302 NSU	0,2	●	●	○	▲	▲	▲	●	●	●	○				▲	▲							●	●	○	○	●				
		DCMT 11T304 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●					▲		●	●	▲	▲		●	●	●	○	●				
		DCMT 11T308 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲		●	●	●	○	●				
Light Cut	NSK	DCMT 070204 NSK	0,4		●	●		▲	▲																								
		DCMT 070208 NSK	0,8		●	●		▲	▲																								
		DCMT 11T304 NSK	0,4		●	●		▲	▲								▲																
		DCMT 11T308 NSK	0,8	●	●	●		▲	▲																								
		DCMT 11T312 NSK	1,2		●			▲										▲															
Roughing	NMU	DCMT 11T304 NMU	0,4	●	●	●	▲	▲	▲	●	●		●	○	●	●	▲	▲															
		DCMT 11T308 NMU	0,8	●	●	●	▲	▲	▲	●	●		●	●	●	●	▲	▲															
Roughing		DCMW 070204	0,4											○	○			▲															
		DCMW 070208	0,8											○	○	○																	
		DCMW 11T304	0,4											○	○	○	▲	▲															
		DCMW 11T308	0,8											●	●		▲	▲															
Finishing		DCMX 11T308 NLUW	0,8	●			▲	▲					●			●		▲															

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

Round Type Inserts | 7° Relief / With Insert Hole



RC--	L	IC	S	D_1
1003	–	10,0	3,18	3,6
10T3	–	10,0	3,97	3,6
12	–	12,0	4,76	4,2
16	–	16,0	6,35	5,2
20	–	20,0	6,35	6,5
25	–	25,0	7,94	7,2
32	–	32,0	9,52	9,5

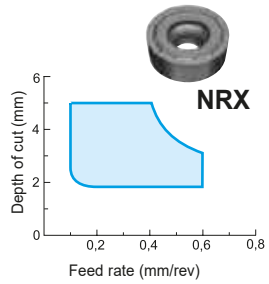
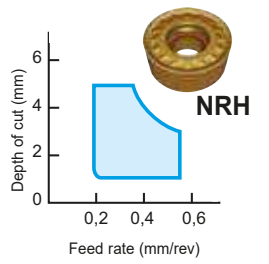
(M0: IC is metric)

Lever lock holders for RCMX
⇨ D34–35

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

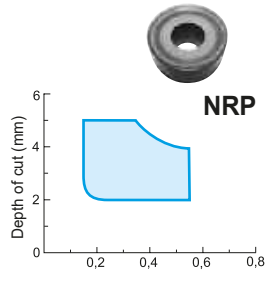
RCMT ●●●●M0 ●-■■

● M-Class Bumpy Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M			Carbide Coated K			Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M		Cermet Coated P				Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing	 NRX	**RCMT 1003M0 NRX**	–	●	●	○	▲	▲	▲				○																				
		RCMT 10T3M0 NRX	–	●	●	●	▲	▲	▲				●																				
		RCMT 1204M0 NRX	–	●	●	●	▲	▲	▲				●								●												
		RCMT 1606M0 NRX	–	●	●	●	▲	▲	▲				●								●												
		RCMT 2006M0 NRX	–	●	●	●	▲	▲	▲				●								●												
		RCMT 2507M0 NRX	–	○	○	○	▲	▲	▲				●																				
		RCMT 3209M0 NRX	–				▲																										
Roughing	 NRH	**RCMT 1204M0 NRH**	–	○	○	○	▲	▲	▲																								
		RCMT 1606M0 NRH	–	○	●	○	▲	▲	▲																								
		RCMT 2006M0 NRH	–	○	○	○	▲	▲	▲																								

RCMX ●●●●M0 ●-■■

● M-Class Grooved Chipbreaker

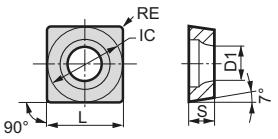
Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M			Carbide Coated K			Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M		Cermet Coated P				Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Roughing	 NRP	**RCMX 1003M0 NRP**	–	○	●	●	▲	▲	▲				○	○	○																		
		RCMX 1204M0 NRP	–	○	●	●	▲	▲	▲					○	○			▲		○		▲												
		RCMX 1606M0 NRP	–	○	●	●	▲	▲	▲				○	○	○																		
		RCMX 2006M0 NRP	–	○	●	●	▲	▲	▲				○							○		▲												
		RCMX 2507M0 NRP	–	○	○	○		▲	▲																								
		RCMX 3209M0 NRP	–	○	○		▲	▲	▲																								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type

7° Relief
With Insert Hole



Dimensions (mm)				
SC_ _	L	IC	S	D_1
0702..	7,94	7,94	2,38	3,4
0903..	9,525	9,525	3,18	4,4
09T3..	9,525	9,525	3,97	4,4
1204..	12,7	12,7	4,76	5,5

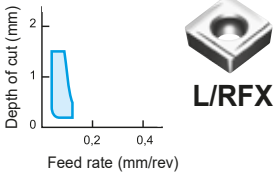
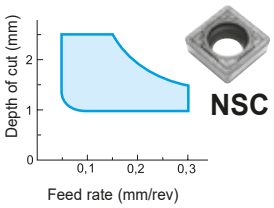
⇨ D36

"S … SSKC" - Type
(⇨ Stock in Japan)

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

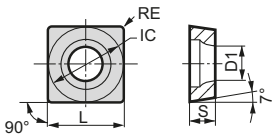
SCGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						M			P M		K			H	S			K S	M S	P M	Cermet Coated P				Cermet Uncoated K			Carbide Uncoated S		N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1		
Finishing	 L/RFX	**SCGT 09T302 LFX**	0,2																				○	○										
		SCGT 09T304 LFX	0,4																				○	○										
		SCGT 120404 LFX	0,4																				○	○										
		SCGT 09T302 RFX	0,2																				○	○										
		SCGT 09T304 RFX	0,4																				○	○										
		SCGT 120404 RFX	0,4																				○	○										
Light Cut	 NSC	**SCGT 070201M NSC**	<0,1																				○	○			○	○						
		SCGT 070202M NSC	<0,2																				○	○			○	○						
		SCGT 090301M NSC	<0,1																								○	○						
		SCGT 090302M NSC	<0,2																								○	○						
		SCGT 09T301M NSC	<0,1																				○	○			○	○						
		SCGT 09T302M NSC	<0,2																				○	○			○	○						

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

90° Square Type | 7° Relief | With Insert Hole



Dimensions (mm)				
SC_ _	L	IC	S	D_1
09T3..	9,525	9,525	3,97	4,4
1204..	12,7	12,7	4,76	5,5

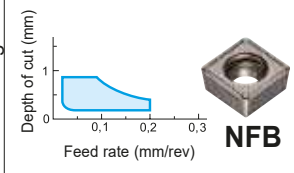
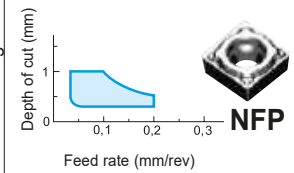
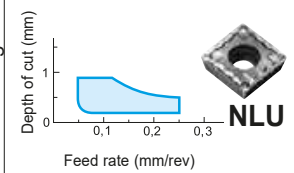
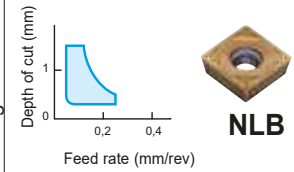
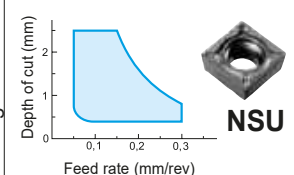
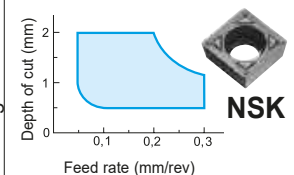
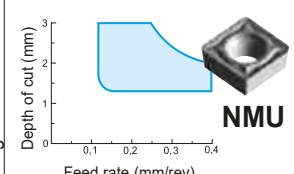
⇨ D36

"S … SSKC" - Type
(⇨ Stock in Japan)

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SCMT/-W ●●●●●● ●-■■

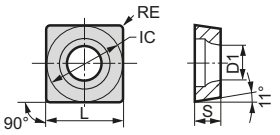
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M AC6020M	AC6030M	AC6040M	P/M AC630M	K AC4010K	AC4015K	AC420K	AC405K	AC415K	H AC503U	S AC5015S	AC5025S	K/S AC510U	M/S AC520U	P/M AC1030U	AC530U	Cermet Coated P T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated K G10E	S EH510	EH520	N H1
Finishing	 NFB	SCMT 09T304 NFB	0,4																						○	●	○	○	○				
		SCMT 09T308 NFB	0,8																						○	●	○	○	○				
Finishing	 NFP	SCMT 09T304 NFP	0,4																							▲		▲	▲				
		SCMT 09T308 NFP	0,8																							▲		▲	▲				
		SCMT 120404 NFP	0,4																										▲				
Finishing	 NLU	SCMT 09T304 NLU	0,4	○	○		▲				○	○														○	○		○				
		SCMT 09T308 NLU	0,8	●	○		▲				○															○	○	○	○				
		SCMT 120412 NLU	1,2		●																												
Light Cut	 NLB	SCMT 09T304 NLB	0,4		○	○		▲	▲	○	○	○														○	○		○				
		SCMT 09T308 NLB	0,8		○	○		▲	▲	○	○	○														○	○		○				
Light Cut	 NSU	SCMT 09T304 NSU	0,4	●	●	●	▲	▲		●	●		○				▲	▲		●	●	▲	▲		●								
		SCMT 09T308 NSU	0,8	●	●	●	▲	▲	▲	●	●	○	●				▲	▲		●	●	▲	▲		●								
		SCMT 120404 NSU	0,4	○	●	●	▲	▲	▲	●			●				▲	▲							●								
		SCMT 120408 NSU	0,8	●	●	●	▲	▲	▲	●			●				▲	▲							●								
Light Cut	 NSK	SCMT 09T304 NSK	0,4		●	●		▲	▲																								
		SCMT 09T308 NSK	0,8		●	●		▲	▲																								
		SCMT 120404 NSK	0,4		●			▲																									
		SCMT 120408 NSK	0,8		●	●		▲	▲																								
		SCMT 120412 NSK	1,2		●		▲	▲																									
Light-Medium Cut	 NMU	SCMT 09T308 NMU	0,8	○	●	●	▲	▲	▲	○	●		○	○	○	●	▲	▲															
		SCMT 120408 NMU	0,8	●	●	●	▲	▲	▲				○	○	○	●	▲	▲															
		SCMT 120412 NMU	1,2		●		▲	▲									▲	▲															
		SCMW 09T308	0,8											○	○	○		▲															
		SCMW 120408	0,8											○	○	○																	
		SCMW 120412	1,2											○	○	○																	

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 11° Relief | With Insert Hole



Dimensions (mm)				
SP_ _	L	IC	S	D_1
0602..	6,35	6,35	2,38	2,8
0703..	7,94	7,94	3,18	3,4
0903..	9,525	9,525	3,18	3,4
09T3..	9,525	9,525	3,97	4,4
1204..	12,7	12,7	4,76	5,5
1504..	15,875	15,875	4,76	6,5

⇨ E18

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

SPMT/-H ●●●●●● ●-■■

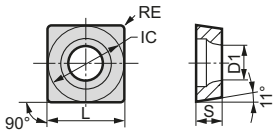
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M AC6020M	AC6030M	AC6040M	PM AC630M	K AC4010K	AC4015K	AC420K	AC405K	AC415K	H AC503U	S AC5015S	AC5025S	KS AC510U	MS AC520U	AC1030U	PM AC530U	Cermet Coated P T1500Z	T3000Z	Uncoated T1000A	T1500A	Carbide Uncoated K G10E	S EH510	EH520	N H1
Finishing	NFB	**SPMT 090304 NFB**	0,4																						○	●	○	○	○				
		SPMT 090308 NFB	0,8																						○	●	○	○	○				
Finishing	NLU	**SPMT 090304 NLU**	0,4	○	○						○																○	○	○				
		SPMT 090308 NLU	0,8	○	○						○																○	○	○				
Finishing	NFK	**SPMT 090304 NFK**	0,4																										●				
Light Cut	NUS	**SPMT 060204 NUS**	0,4										○													○	○						
		SPMT 070308 NUS	0,8										○													○	○						
		SPMT 09T308 NUS	0,8										○																				
Light Cut	NUS	**SPMH 090308 NUS**	0,8										○																				
		SPMH 120408 NUS	0,8										○																				
		SPMH 150408 NUS	0,8										○																				
Light - Medium Cut	NLB	**SPMT 090304 NLB**	0,4		○	○		▲	▲	○	○	○																					
		SPMT 090308 NLB	0,8		○	○		▲	▲	○	○	○																					
Light - Medium Cut	NSF	**SPMT 090304 NSF**	0,4		○	○		▲	▲																								
		SPMT 090308 NSF	0,8		○	●		▲	▲																								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

90° Square Type

11° Relief
With Insert Hole



Dimensions (mm)				
SP_ _	L	IC	S	D_1
0703..	7,94	7,94	3,18	3,4
0903..	9,525	9,525	3,18	3,4

⇨ E18

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

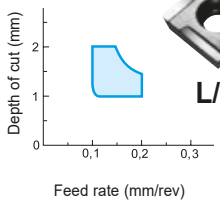
SPGW ●●●●●●

● G-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M		Carbide Coated K					Carbide Coated H	Carbide Coated S			Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M		Cermet Coated P				Cermet Uncoated P				Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N	
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut		**SPGW 090304 T**	0,4																									●										
		SPGW 070304	0,4																									○										
		SPGW 090304	0,4																									○										

SPGT ●●●●●● ●-■■

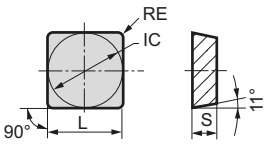
● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M		Carbide Coated K					Carbide Coated H	Carbide Coated S			Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M		Cermet Coated P				Cermet Uncoated P				Carbide Uncoated K	Carbide Uncoated S		Carbide Uncoated N	
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing - Light Cut	 L/RSD	**SPGT 090302 LSD**	0,2																							○		○	○									
		SPGT 090304 LSD	0,4																							○	○	○										
		SPGT 090308 LSD	0,8																							○	○	○	○									
		SPGT 090302 RSD	0,2																							○		○	○									
		SPGT 090304 RSD	0,4																							○		○	○									
		SPGT 090308 RSD	0,8																							○		○	○									

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

S SQUARE TYPE
INSERTS FOR TURNING

90° Square Type | 11° Relief | Without Insert Hole



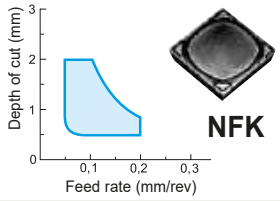
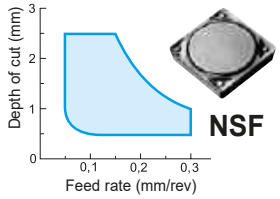
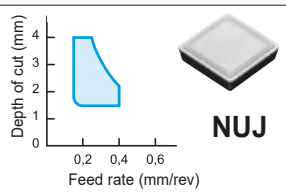
Dimensions (mm)				
SP_ _	L	IC	S	D_1
0903..	9,525	9,525	3,18	-
1203..	12,7	12,7	3,18	-

"S… CSKP…09/12" - Type
(⇨ Stock in Japan)

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

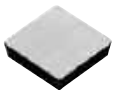
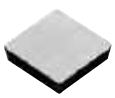
SPMR ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing		**SPMR 090304 NFK**	0,4																						○		○	●				
		SPMR 090308 NFK	0,8																						○	○	○	○				
		SPMR 120304 NFK	0,4																						○		○	○				
		SPMR 120308 NFK	0,8																						○		○	○				
Light- Medium Cut		**SPMR 090304 NSF**	0,4		○	○		▲	▲																							
		SPMR 090308 NSF	0,8		●	○		▲	▲																							
		SPMR 120304 NSF	0,4		●	○		▲	▲																							
		SPMR 120308 NSF	0,8		●	●		▲	▲																							
		SPMR 120312 NSF	1,2		●			▲																								
		**SPMR 090304 NUJ**	0,4		○																											
		SPMR 090308 NUJ	0,8		○	○																										
		SPMR 120304 NUJ	0,4		○			▲																								
		SPMR 120308 NUJ	0,8		○	○																										

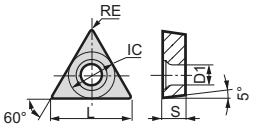
SP_N ●●●●●●

● G/M-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Medium Cut		**SPGN 090304**	0,4																								○	●				
		SPGN 090308	0,8																								○	●				○
		SPGN 120304	0,4																								○	○				
		SPGN 120308	0,8																								○	○	○			
Medium Cut		**SPMN 090304**	0,4											○	○													○	○				
		SPMN 090308	0,8											○	○													○	○				
		SPMN 120304	0,4											○	○																		
		SPMN 120308	0,8											○	○													●	○				
		SPMN 120312	1,2											○	○										○			○	○				

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type | 5° Relief | With Insert Hole



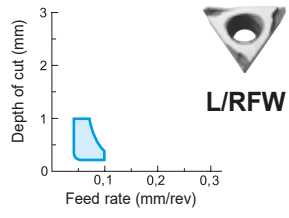
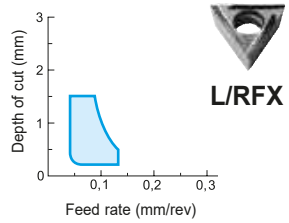
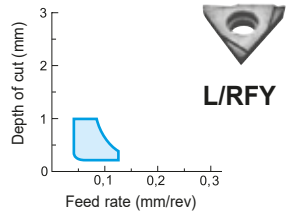
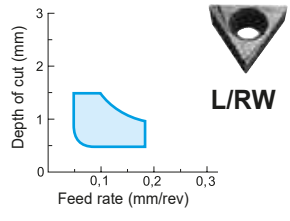
Dimensions (mm)				
TB__	L	IC	S	D_1
0601..	6,9	3,97	1,59	2,2

⇨ E20

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TBGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 L/RFW	**TBGT 060102 LFW** **TBGT 060104 LFW**	0,2 0,4																						○ ○			○ ○				
		TBGT 060102 RFW **TBGT 060104 RFW**	0,2 0,4																						○ ○			○ ○				
Finishing	 L/RFX	**TBGT 060102 LFX** **TBGT 060104 LFX**	0,2 0,4																	○ ○		▲ ▲		● ●	○ ○								
		TBGT 060102 RFX **TBGT 060104 RFX**	0,2 0,4																	○ ○		▲ ▲		● ●	○ ○								
Finishing	 L/RFY	**TBGT 060101 LFY** **TBGT 060102 LFY** **TBGT 060104 LFY**	0,1 0,2 0,4																					○ ○ ○	○ ○ ○			○ ○	○				
		TBGT 060101 RFY **TBGT 060102 RFY** **TBGT 060104 RFY**	0,1 0,2 0,4																					○ ○ ○				○ ○ ○	○ ○				
Finishing-Light Cut	 L/RW	**TBGT 060102 LW** **TBGT 060104 LW**	0,2 0,4																					● ●	● ○	○ ○	○	○ ○	● ●				
		TBGT 060102 RW **TBGT 060104 RW**	0,2 0,4																					● ●	○ ○	○ ○		○ ○	● ●				

TBGW ●●●●●●

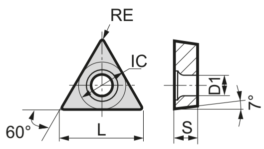
● G-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut		**TBGW 060102** **TBGW 060104**	0,2 0,4																									○ ○				

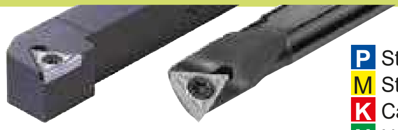
●= Euro stock
○= Japan stock
▲= To be replaced by new item

60° Triangle Type

7° Relief
With Insert Hole



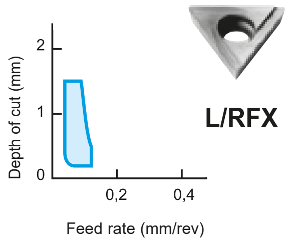
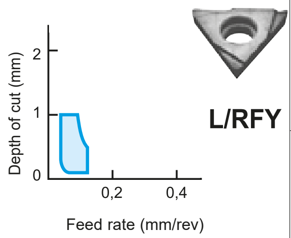
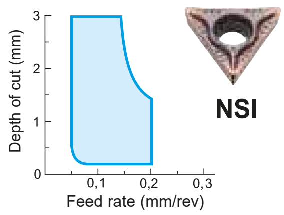
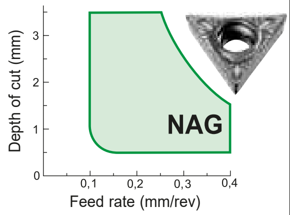
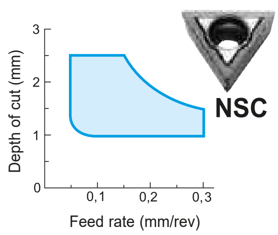
TC_ _	L	IC	S	D1
	Dimensions (mm)			
0802..	8,2	4,76	2,38	2,3
0902..	9,62	5,56	2,38	2,5
1102..	11,0	6,35	2,38	2,8
16T3..	16,5	9,525	3,97	4,3



P Steel
M Stainless Steel
K Cast Iron
N Non-Ferrous Metals
S Super Alloy
H Hardened Steel

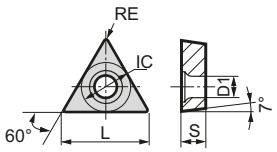
TCGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S		P/M	P				K	S		N
Finishing		TCGT 090201 LFX	0,1																					○									
Finishing	L/RFX	TCGT 090202 LFX	0,2																					○	○								
Finishing	L/RFX	TCGT 110201 LFX	0,1																					○	○								
Finishing	L/RFX	TCGT 110202 LFX	0,2																					○									
Finishing	L/RFX	TCGT 090201 RFX	0,1																					○									
Finishing	L/RFX	TCGT 090202 RFX	0,2																					○									
Finishing	L/RFX	TCGT 110201 RFX	0,1																					○									
Finishing	L/RFX	TCGT 110202 RFX	0,2																					○	○								
Finishing		TCGT 090201 LFY	0,1																					○									
Finishing	L/RFY	TCGT 090202 LFY	0,2																					○	○								
Finishing	L/RFY	TCGT 110201 LFY	0,1																					○									
Finishing	L/RFY	TCGT 110202 LFY	0,2																					○	○								
Finishing	L/RFY	TCGT 090201 RFY	0,1																					○									
Finishing	L/RFY	TCGT 090202 RFY	0,2																					○									
Finishing	L/RFY	TCGT 110201 RFY	0,1																					○									
Finishing	L/RFY	TCGT 110202 RFY	0,2																					○									
Light cut		TCGT 110204M NSI	<0,4										○							●	●	▲	▲	●	●								
Light Cut		TCGT 110202 NAG	0,2																														●
Light Cut	NAG	TCGT 110204 NAG	0,4																														●
Light Cut	NAG	TCGT 16T304 NAG	0,4																														●
Light Cut	NAG	TCGT 16T308 NAG	0,8																														●
Light Cut		TCGT 080201M NSC	<0,1																					○	○			○	○				
Light Cut	NSC	TCGT 080202M NSC	<0,2																					○	●			○	○				
Light Cut	NSC	TCGT 090201M NSC	<0,1																					○	○			○	○				
Light Cut	NSC	TCGT 090202M NSC	<0,2																					○	○			●	●				
Light Cut	NSC	TCGT 110201M NSC	<0,1																					○	○			○	○				
Light Cut	NSC	TCGT 110202M NSC	<0,2																					●	●			●	●				
Light Cut	NSC	TCGT 110204M NSC	<0,4																					●	●				●				
Light Cut	NSC	TCGT 110301M NSC	<0,1																									○	○				
Light Cut	NSC	TCGT 110302M NSC	<0,2																									○	○				

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type | 7° Relief | With Insert Hole



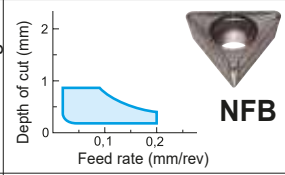
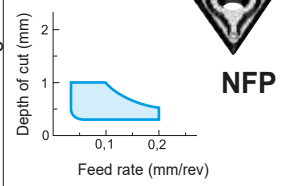
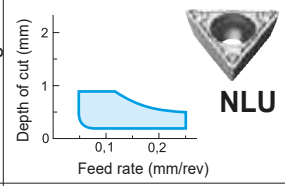
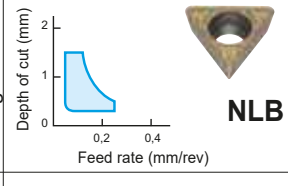
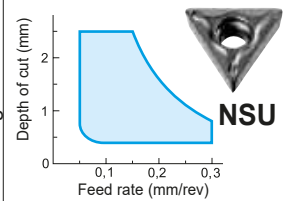
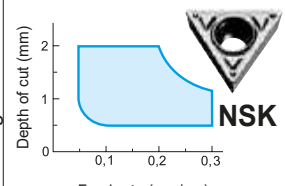
Dimensions (mm)				
TC_ _	L	IC	S	D_1
0902..	9,6	5,56	2,38	2,5
1102..	11,0	6,35	2,38	2,8
16T3..	16,5	9,525	3,97	4,3

⇨ D37 ⇨ E19

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TCMT/-W ●●●●●● ●-■■

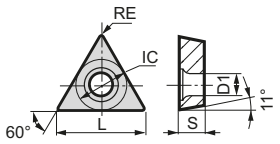
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S			Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P				Cermet Uncoated K	Cermet Uncoated S	Cermet Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NFB	**TCMT 110204 NFB**	0,4																						○	●	○	○	●				
		TCMT 110208 NFB	0,8																						○	●	●	○	●				
Finishing	  NFP	**TCMT 090202 NFP**	0,2																										▲				
		TCMT 090204 NFP	0,4																										▲				
		TCMT 090208 NFP	0,8																										▲				
		TCMT 110202 NFP	0,2																						▲				▲				
		TCMT 110204 NFP	0,4																						▲	▲			▲				
		TCMT 110208 NFP	0,8																						▲	▲			▲				
		TCMT 16T304 NFP	0,4																						▲	▲			▲				
		TCMT 16T308 NFP	0,8																						▲	▲			▲				
Finishing	 NLU	**TCMT 110204 NLU**	0,4	○	●		▲	▲			○														●	○	○	○	○				
		TCMT 110208 NLU	0,8	○	○			▲			○														○	○	○	○	○				
Light Cut	 NLB	**TCMT 110204 NLB**	0,4		○	○		▲	▲	○	○	○														○	○						
		TCMT 110208 NLB	0,8		○	○		▲	▲	○	○	○													○	○						
Light Cut	 NSU	**TCMT 110204 NSU**	0,4	●	●	●	▲	▲	▲	●	●	●	●				▲	▲							●	●	●						
		TCMT 110208 NSU	0,8	●	●	●	▲	▲	▲	●	●	○					▲	▲							○								
		TCMT 16T304 NSU	0,4	●	●	●	▲	▲	▲	●	●		●				▲	▲							●								
		TCMT 16T308 NSU	0,8	●	●	●	▲	▲	▲	●	●	○	●				▲	▲							●								
Light Cut	 NSK	**TCMT 110204 NSK**	0,4	○	●	●		▲	▲																								
		TCMT 110208 NSK	0,8	○	●	●		▲	▲																								
		TCMT 16T304 NSK	0,4	○	●	●		▲	▲																								
		TCMT 16T308 NSK	0,8	○	●	●		▲	▲																								
		TCMT 16T312 NSK	1,2		●			▲										▲															
Light Cut		**TCMW 110204**	0,4											○	○		▲	▲															
		TCMW 110208	0,8											○	○		▲	▲															
		TCMW 16T304	0,4											○	○		▲	▲															
		TCMW 16T308	0,8											○	○	○	▲	▲															
		TCMW 16T312	1,2											○	○			▲															

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 11° Relief | With Insert Hole



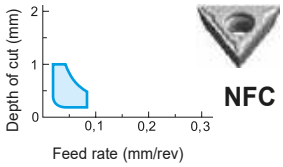
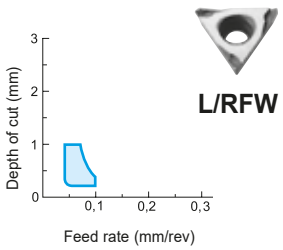
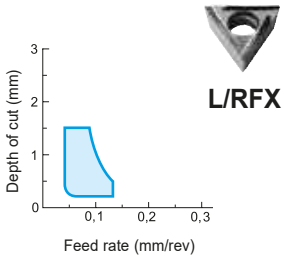
Dimensions (mm)				
TP__	L	IC	S	D_1
0802..	8,2	4,76	2,38	2,4
0902..	9,6	5,56	2,38	2,8
1103..	11,0	6,35	3,18	3,4
1603..	16,5	9,525	3,18	4,4

⇨ E20

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

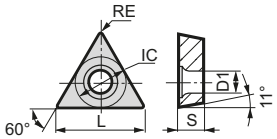
TPGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P						Carbide Coated M			Carbide Coated P/M	Carbide Coated K				Carbide Coated H	Carbide Coated S		Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P		Cermet Uncoated P		Carbide Coated K	Carbide Uncoated S		Carbide Uncoated N
				AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NFC	**TPGT 110302M NFC**	<0,2																				○				○	○				
		TPGT 110304M NFC	<0,4																				○	○			○	○				
Finishing	 L/RFW	**TPGT 080202 LFW**	0,2																						○		○	○				
		TPGT 080204 LFW	0,4																						○		○					
		TPGT 110202 LFW	0,2																						○		○	○				
		TPGT 110204 LFW	0,4																						○		○	○				
		TPGT 080202 RFW	0,2																						○		○	○				
		TPGT 080204 RFW	0,4																						○		○	○				
		TPGT 110202 RFW	0,2																						○		○	○				
		TPGT 110204 RFW	0,4																						○		○	○				
Finishing	 L/RFX	**TPGT 080202 LFX**	0,2																				○	○								
		TPGT 080204 LFX	0,4																				○	○								
		TPGT 090204 LFX	0,4																								○	○				
		TPGT 110204 LFX	0,2																	○												
		TPGT 110302 LFX	0,2																		○		▲	●	●							
		TPGT 110304 LFX	0,4																		○		▲	●	●							
		TPGT 110308 LFX	0,8																					○								
		TPGT 160304 LFX	0,4																					○								
		TPGT 160308 LFX	0,8																					○								
		TPGT 080202 RFX	0,2																					○	●							
		TPGT 080204 RFX	0,4																					○								
		TPGT 110202 RFX	0,2																	○												
		TPGT 110302 RFX	0,2																		○		▲	●	○							
		TPGT 110304 RFX	0,4																		○		▲	●	●							
		TPGT 110308 RFX	0,8																		○		▲	○								
		TPGT 160304 RFX	0,4																					○								
		TPGT 160308 RFX	0,8																					○								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type | 11° Relief | With Insert Hole



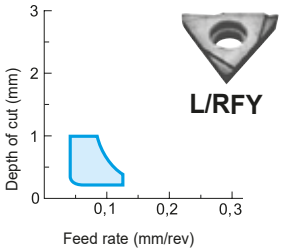
Dimensions (mm)				
TP_ _	L	IC	S	D_1
0802..	8,2	4,76	2,38	2,4
0902..	9,6	5,56	2,38	2,8
1102..	11,0	6,35	2,38	2,8
1103..	11,0	6,35	3,18	3,4
1603..	16,5	9,525	3,18	4,4

⇨ E20

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

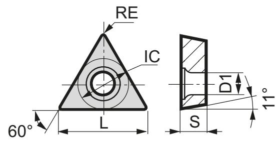
TPGT/-W ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated T1500Z	Cermet Coated T3000Z	Cermet Uncoated T1000A	Cermet Uncoated T1500A	Carbide Uncoated G10E	Carbide Uncoated EH510	Carbide Uncoated EH520	H1
Finishing	 L/RFY	**TPGT 0802003 LFY**	0,03																				○									
		TPGT 080201 LFY	0,1																				○									
		TPGT 080202 LFY	0,2																		○		○				○	○				
		TPGT 080204 LFY	0,4																				○	○			○	○				
		TPGT 090201 LFY	0,1																				○									
		TPGT 090202 LFY	0,2																				○									
		TPGT 090204 LFY	0,4																				○									
		TPGT 110202 LFY	0,2																								○	○				
		TPGT 110204 LFY	0,4																								○	○				
		TPGT 110208 LFY	0,8																									○				
		TPGT 1103003 LFY	0,03																						○								
		TPGT 110301 LFY	0,1																						○	○							
		TPGT 110302 LFY	0,2																		○				○	○	○	○	○	○			
		TPGT 110304 LFY	0,4																						○		○	○	○	○			
		TGPT 110308 LFY	0,8																						○				○				
		TPGT 160302 LFY	0,2																						○								
		TPGT 160304 LFY	0,4																						○								
		TPGT 160308 LFY	0,8																						○								
		TPGT 0802003 RFY	0,03																						○								
		TPGT 080201 RFY	0,1																						○								
		TPGT 080202 RFY	0,2																						○	○			○	○			
		TPGT 080204 RFY	0,4																						○				○	○			
		TPGT 090201 RFY	0,1																						○								
		TPGT 090202 RFY	0,2																						○								
		TPGT 090204 RFY	0,4																						○								
		TPGT 110202 RFY	0,2																										○	○			
		TPGT 110204 RFY	0,4																										○	○			
		TPGT 110208 RFY	0,8																											○			
		TPGT 1103003 RFY	0,03																						○								
		TPGT 110301 RFY	0,1																						○	○							
		TPGT 110302 RFY	0,2																						○		○	○	○	○			
		TPGT 110304 RFY	0,4																						○		○	○	○	○			
		TPGT 110308 RFY	0,8																						○				○				
		TPGT 160302 RFY	0,2																						○								
		TPGT 160304 RFY	0,4																						○								
		TPGT 160308 RFY	0,8																						○								
Light Cut		**TPGW 080202**	0,2																										○	○			
		TPGW 110302	0,2																							○							
		TPGW 110304	0,4																							○			○	○			
		TPGW 110308	0,8																										○	○			

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type
11° Relief
With Insert Hole



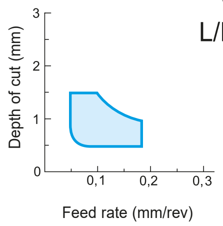
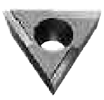
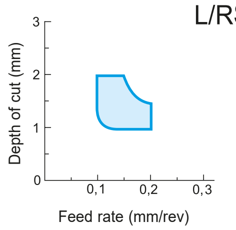
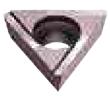
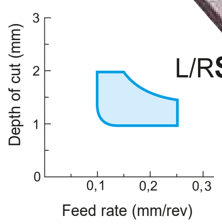
Dimensions (mm)				
TP_ _	L	IC	S	D_1
0802..	8,2	4,76	2,38	2,4
1103..	11,0	6,35	3,18	3,4
1604..	16,5	9,525	4,76	4,4

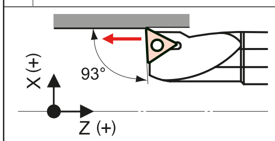
⇨ E20

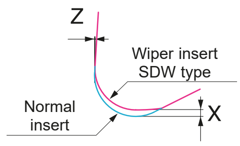
- **P** Steel
- **M** Stainless Steel
- **K** Cast Iron
- **N** Non-Ferrous Metals
- **S** Super Alloy
- **H** Hardened Steel

TPGT/-X ●●●●●● ●-■■

● G-Class Handed Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide Coated																						Cermet Coated		Cermet Uncoated		Carbide Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Finishing-Light Cutting	L/RW  	TPGT 080202 LW	0,2																					○	○				●				
		TPGT 080204 LW	0,4																					●	●				●				
		TPGT 110302 LW	0,2																					●	●				●				
		TPGT 110304 LW	0,4																					●	●				●				
		TPGT 160402 LW	0,2																										●				
		TPGT 160404 LW	0,4																										●				
		TPGT 080202 RW	0,2																					○					●	○			
		TPGT 080204 RW	0,4																					●	●				●				
		TPGT 110302 RW	0,2																					●	●				●				
		TPGT 110304 RW	0,4																					●	●				●				
		TPGT 160404 RW	0,4																										●				
Finishing-Light Cutting	L/RSD  	TPGT 110302 LSD	0,2																					○	○	○	○	○	●	○			
		TPGT 110304 LSD	0,4																	○		▲		○	○	○	○	○	●	○			
		TPGT 110308 LSD	0,8																					○	○	○	○	○	○				
		TPGT 160402 LSD	0,2																									○	●				
		TPGT 160404 LSD	0,4																	○		▲				○	○	○	●				
		TPGT 160408 LSD	0,8																							○		○					
		TPGT 110302 RSD	0,2																					○	○	○		○	●				
		TPGT 110304 RSD	0,4																					○	○	○	○	○	●				
		TPGT 110308 RSD	0,8																					○		○		○	○				
		TPGT 160402 RSD	0,2																									○	○				
		TPGT 160404 RSD	0,4																							○	○	○	●				
		TPGT 160408 RSD	0,8																							○		○	●				
Finishing-Light Cutting	L/RSDW  	TPGX 110304 L-SDW	0,4																								●						
		TPGX 110308 L-SDW	0,8																								○						
		TPGX 160404 L-SDW	0,4																							○			○				
		TPGX 160408 L-SDW	0,8																							○			○				
		TPGX 110304 R-SDW	0,4																								○						
		TPGX 110308 R-SDW	0,8																								○						
		TPGX 160404 R-SDW	0,4																							○			○				
		TPGX 160408 R-SDW	0,8																							○			○				



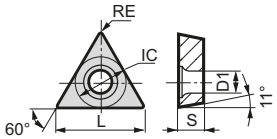


(Note) The cutting point position of the SDW type does not follow the ISO standard.
Wenn using on a boring holder with a 93° approach angle, there is a need to revise the cutting point position (refer to right table) relative to using standard inserts.

RE	Compensation (mm)	
	X (Diam. change)	Z
0,4	+0,12 (Ø : +0,24)	-0,02
0,8	+0,12 (Ø : +0,24)	-0,02

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type | 11° Relief | With Insert Hole



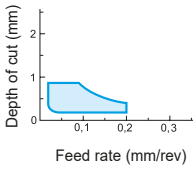
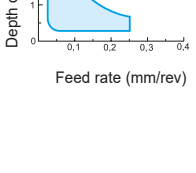
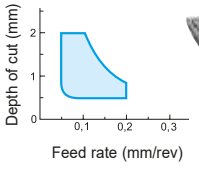
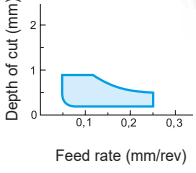
Dimensions (mm)				
TP__	L	IC	S	D_1
0802..	8,2	4,76	2,38	2,4
0902..	9,6	5,56	2,38	2,8
1103..	11,0	6,35	3,18	3,4
1603..	16,5	9,525	3,18	4,4
1604..	16,5	9,525	4,76	4,4

⇨ E20

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TPMT ●●●●●● ●-■■

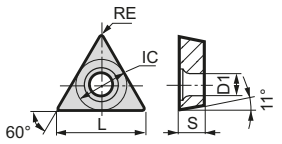
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Coated K	Carbide Coated S	Carbide Coated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	 NFB  Depth of cut (mm) / Feed rate (mm/rev)	**TPMT 080202 NFB**	0,2																						○	●	○	○	○				
		TPMT 080204 NFB	0,4																						○	●	○	○	○				
		TPMT 090202 NFB	0,2																						○	●	○	○	○				
		TPMT 090204 NFB	0,4																						○	●		○	○				
		TPMT 110302 NFB	0,2																						○	●	○	○	○				
		TPMT 110304 NFB	0,4																						○	●	○	○	○				
		TPMT 110308 NFB	0,8																						○	●	○	○	○				
		TPMT 160304 NFB	0,4																						○	○	○	○	○				
		TPMT 160308 NFB	0,8																						○			○					
		TPMT 160404 NFB	0,4																						○	●	○	○	○				
		TPMT 160408 NFB	0,8																						○	●	○	○	○				
Light Cut	 NLB  Depth of cut (mm) / Feed rate (mm/rev)	**TPMT 080202 NLB**	0,2		○	○		▲	▲	○	○	○													○	○							
		TPMT 080204 NLB	0,4		○	○		▲	▲	○	○	○													○	○							
		TPMT 090202 NLB	0,2		○	○		▲	▲	○	●	●													○	○		○					
		TPMT 090204 NLB	0,4		○	○		▲	▲	○	●	●													○	○		○					
		TPMT 110302 NLB	0,2		○	○		▲	▲	○	●	●													○	○		○					
		TPMT 110304 NLB	0,4		○	○		▲	▲	○	●	●													○	○		○					
		TPMT 110308 NLB	0,8		○	○		▲	▲	○	●	●													○	○		○					
		TPMT 160304 NLB	0,4		○	○		▲	▲	○	○	○													○	○							
		TPMT 160308 NLB	0,8		○	○		▲	▲	○	○	○													○	○							
		TPMT 160404 NLB	0,4		○	○		▲	▲	○	○	○													○	○							
		TPMT 160408 NLB	0,8		○	○		▲	▲	○	○	○													○	○							
Finishing	 NFK  Depth of cut (mm) / Feed rate (mm/rev)	**TPMT 110304 NFK**	0,4																									●	●				
		TPMT 110308 NFK	0,8																									○	●				
		TPMT 160404 NFK	0,4																									●	●				
		TPMT 160408 NFK	0,8																									●	●				
Finishing	 NLU  Depth of cut (mm) / Feed rate (mm/rev)	**TPMT 080202 NLU**	0,2								●	●													○			○	○				
		TPMT 080204 NLU	0,4	●			▲				●	●													○		●	○	○				
		TPMT 090202 NLU	0,2	○	○			▲																		○	○	○	○				
		TPMT 090204 NLU	0,4	○	○			▲																		○	○	○					
		TPMT 110302 NLU	0,2									●														○		○	○				
		TPMT 110304 NLU	0,4	●	○		▲				●	●	○												●	○	○	○	○				
		TPMT 110308 NLU	0,8	●	○		▲				●	●	○												○	○	○	○	○				

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

T TRIANGLE TYPE
INSERTS FOR TURNING

60° Triangle Type | 11° Relief | With Insert Hole



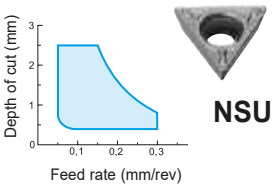
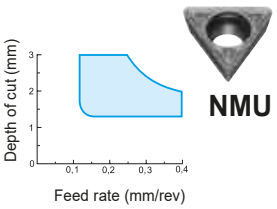
Dimensions (mm)				
TP_ _	L	IC	S	D_1
0802..	8,2	4,76	2,38	2,4
1103..	11,0	6,35	3,18	3,4
1604..	16,5	9,525	4,76	4,4

⇨ E20

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

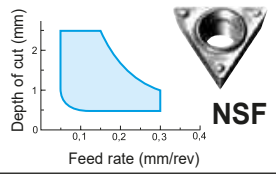
TPMT ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Coated P	Cermet Coated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut		**TPMT 080202 NSU**	0,2							○	●	●														○	○						
		TPMT 080204 NSU	0,4							○	●	●	○												○			○	○				
		TPMT 110302 NSU	0,2	○	○	○		▲	▲	○	●	●													○	○		○	○				
		TPMT 110304 NSU	0,4	●	●	○	▲	▲	▲	●	●	●	●				▲	▲							●	○	○	○	●				
		TPMT 110308 NSU	0,8	●	●	○	▲	▲	▲	●	●	●	○				▲	▲							○	○	○	○	●				
		TPMT 160404 NSU	0,4	●	○	○	▲	▲	▲	●	○		●				▲	▲							●	○	○		○	●				
		TPMT 160408 NSU	0,8	●	○	○	▲	▲	▲	●	○		●				▲	▲							●	○	○		○	●				
Light -Medium Cut		**TPMT 110304 NMU**	0,4	○	○			▲		○	●		○	○	○																		
		TPMT 110308 NMU	0,8	○	○			▲		○	●		○	○	○																		
		TPMT 160404 NMU	0,4	○	○			▲		○	○			○	○																		
		TPMT 160408 NMU	0,8	○	○			▲		○	○			○	○																		

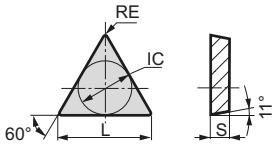
TPMT/H ●●●●●● NSF

● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated M	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Coated P	Cermet Coated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light -Medium Cut		**TPMH 110304 NSF**	0,4		●	●		▲	▲																								
		TPMH 110308 NSF	0,8		●	●		▲	▲																								
		TPMT 160404 NSF	0,4		○	●		▲	▲																								
		TPMT 160408 NSF	0,8		●	●		▲	▲																								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type | 5°/11° Relief | Without Insert Hole

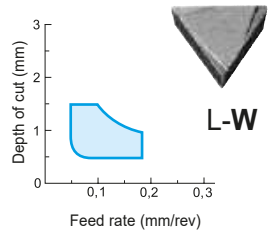
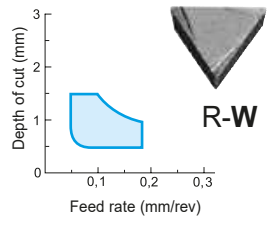


Dimensions (mm)				
TP/TB_	L	IC	S	D_1
0601..	6,9	3,97	1,59	-
0902..	9,6	5,56	2,38	-
1103..	11,0	6,35	3,18	-
1603..	16,5	9,525	3,18	-

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

TPGR ●●●●●● ●-■

● G-Class Handed Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing-Light Cut	 L-W	**TPGR 090202 LW**	0,2																									○				
		TPGR 090204 LW	0,4																									○				
		TPGR 090208 LW	0,8																									○				
		TPGR 110302 LW	0,2																						○		○	○				
		TPGR 110304 LW	0,4																						○		○	●				
		TPGR 110308 LW	0,8																						○		○	○				
		TPGR 160302 LW	0,2																						○		○	○				
		TPGR 160304 LW	0,4																						○		○	●				
		TPGR 160308 LW	0,8																						○		○	●				
Finishing-Light Cut	 R-W	**TPGR 090202 RW**	0,2																									○				
		TPGR 090204 RW	0,4																									○				
		TPGR 090208 RW	0,8																									○				
		TPGR 110302 RW	0,2																						○		○	○				
		TPGR 110304 RW	0,4																						○		○	●				
		TPGR 160302 RW	0,2																						○		○	○				
		TPGR 160304 RW	0,4																						○		○	●				
		TPGR 160308 RW	0,8																						○		○	●				

TBG_ ●●●●●● ●-■

● G-Class No Chipbreaker/ Handed Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing - Light-Cut		**TBGN 060104**	0,4																									○				
		**TBGR 060104 LW**	0,4																									○				

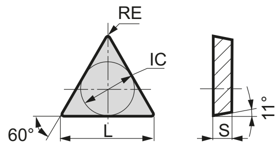
TPGN ●●●●●●

● G-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Light Cut		**TPGN 090202**	0,2																									○				
		TPGN 090204	0,4																									○				
		TPGN 090208	0,8																									○				○
		TPGN 110302	0,2																									○				○
		TPGN 110304	0,4																									○	○			○
		TPGN 110308	0,8																									○				
		TPGN 160302	0,2																									○				
		TPGN 160304	0,4																									○	○			
		TPGN 160308	0,8																									○				
		TPGN 160312	1,2																										○			

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

60° Triangle Type
11°/20° Relief
Without Insert Hole



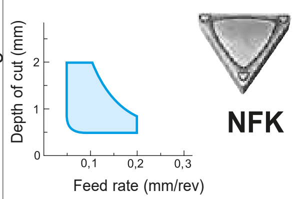
Dimensions (mm)				
TP_ _	L	IC	S	D_1
0902..	9,6	5,56	2,38	-
1103..	11,0	6,35	3,18	-
1603..	16,5	9,525	3,18	-
2204..	22,0	12,7	4,76	-

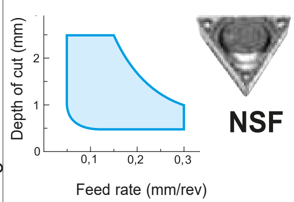
- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

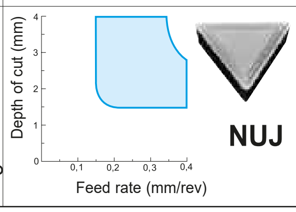
TPMR ●●●●●● ●-■■

● M-Class

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide																						Cermet				Carbide			
				Coated																						Coated		Uncoated		Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Finishing	NFK	TPMR 090204 NFK	0,4																										○				
Finishing	NFK	TPMR 110302 NFK	0,2																										●				
Finishing	NFK	TPMR 110304 NFK	0,4																									○	●				
Finishing	NFK	TPMR 110308 NFK	0,8																										●				
Finishing	NFK	TPMR 160304 NFK	0,2																										●				
Finishing	NFK	TPMR 160308 NFK	0,4																								○	○	●				
Finishing	NFK	TPMR 160312 NFK	1,2																										○				
Light-Medium Cut	NSF	TPMR 110304 NSF	0,4		●	●		▲	▲																								
Light-Medium Cut	NSF	TPMR 110308 NSF	0,8	○	●	●		▲	▲																								
Light-Medium Cut	NSF	TPMR 160304 NSF	0,4		●	●		▲	▲																								
Light-Medium Cut	NSF	TPMR 160308 NSF	0,8	○	●	●		▲	▲																								
Light-Medium Cut	NSF	TPMR 160312 NSF	1,2		●	●		▲																									
Light-Medium Cut	NSF	TPMR 220408 NSF	0,8				▲	▲	▲																								
Light-Medium Cut	NSF	TPMR 220412 NSF	1,2				▲	▲																									
Light-Medium Cut	NUJ	TPMR 110304 NUJ	0,4		○	○		▲	▲																								
Light-Medium Cut	NUJ	TPMR 110308 NUJ	0,8		○	○																											
Light-Medium Cut	NUJ	TPMR 160304 NUJ	0,4		○	●		▲	▲																								
Light-Medium Cut	NUJ	TPMR 160308 NUJ	0,8		○	●		▲	▲																								



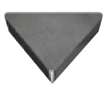




TPMN ●●●●●●

● M-Class No Chipbreaker

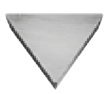
Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide																						Cermet				Carbide			
				Coated																						Coated		Uncoated		Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Medium Cut		TPMN 110304	0,4											○	○																		
Medium Cut		TPMN 110308	0,8											○	○																		
Medium Cut		TPMN 160304	0,4											○	○																		
Medium Cut		TPMN 160308	0,8											○	○	○												○	○				
Medium Cut		TPMN 160312	1,2											○	○																		
Medium Cut		TPMN 220408	0,8																									○	○				



TEGN ●●●●●●

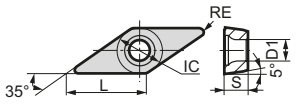
● E-Class No Chipbreaker

Application	Shape	ISO Cat. No.	RE	AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
				Carbide																						Cermet				Carbide			
				Coated																						Coated		Uncoated		Uncoated			
				P						M			P/M	K					H	S		K/S	M/S	P/M		P				K	S		N
Light-Medium Cut		TEGN 160308	0,8																										○				



● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

35° Diamond Type | 5° Relief | With Insert Hole



Dimensions (mm)				
VB_ _	L	IC	S	D_1
1102..	11,0	6,35	2,38	2,38
1103..	11,1	6,35	3,18	2,8
1604..	16,6	9,525	4,76	4,4

⇨ D38 ⇨ E21–22

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

VBMT/-W ●●●●●● ●-■■

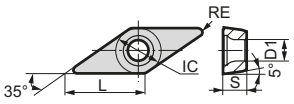
● M-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated K	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Coated P	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	NFB	**VBMT 110302 NFB**	0,2																					○	●	○	○	○				
		VBMT 110304 NFB	0,4																					○	●	○	○	○				
		VBMT 110308 NFB	0,8																					○	●	○	○	○				
		VBMT 160404 NFB	0,4																					○	●	●	●	●				
		VBMT 160408 NFB	0,8																					○	●	○	○	●				
Finishing	NFP	**VBMT 110202 NFP**	0,2																							▲	▲	▲				
		VBMT 110204 NFP	0,4																							▲	▲	▲				
		VBMT 160404 NFP	0,4																					▲		▲	▲	▲				
		VBMT 160408 NFP	0,8																					▲		▲	▲	▲				
Finishing	NLU	**VBMT 110302 NLU**	0,2																					○	○			○				
		VBMT 110304 NLU	0,4	○	●		▲	▲		●		●	○											○	○		○	○				
		VBMT 110308 NLU	0,8	○	○		▲			●	○	●	○																			
		VBMT 160404 NLU	0,4	●	○		▲	▲			○	●	○											●	○	○	○	○				
		VBMT 160408 NLU	0,8	●	●		▲	▲			○	●												○	○	○	○	○				
Light Cut	NLB	**VBMT 110302 NLB**	0,2		○	○		▲	▲	○	○	○													○			○				
		VBMT 110304 NLB	0,4		○	○		▲	▲	○	○	○													○	○						
		VBMT 110308 NLB	0,8		○	○		▲	▲	○	○	○													○	○						
		VBMT 160404 NLB	0,4		○	○		▲	▲	○	●	●													●	●		●				
		VBMT 160408 NLB	0,8		○	○		▲	▲	○	●	●													●	●		●				
		VBMT 160412 NLB	1,2		○	○		▲	▲	○	●	●													●	○		●				
Light Cut	NSU	**VBMT 110204 NSU**	0,4	●			▲	▲		●			●												●							
		VBMT 110208 NSU	0,8	●	●		▲	▲		●			●												●							
		VBMT 110302 NSU	0,2																						○							
		VBMT 110304 NSU	0,4	●	●		▲	▲		●		●	●				▲	▲							●		○					
		VBMT 110308 NSU	0,8	●	●		▲	▲	▲	●	●	○	○				▲	▲							○							
		VBMT 160404 NSU	0,4	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲	●	●	●	○	○				
		VBMT 160408 NSU	0,8	●	●	●	▲	▲	▲	●	●	●	●				▲	▲		●	●	▲	▲	●			○	○				
		VBMT 160412 NSU	1,2	○	○			▲																								
Light Cut	NSK	**VBMT 110204 NSK**	0,4		●	●		▲	▲																							
		VBMT 110208 NSK	0,8		●			▲	▲																							
		VBMT 160404 NSK	0,4	●	●	●		▲	▲											●	●	▲	▲									
		VBMT 160406 NSK	0,6		●	●		▲	▲																							
		VBMT 160408 NSK	0,8	●	●	●		▲	▲											●	●	▲	▲									
		VBMT 160412 NSK	1,2	●	●	●		▲	▲									▲														
Light - Medium Cut	NMU	**VBMT 160408 NMU**	0,8	●			▲						●																			
Light Cut		**VBMW 160404**	0,4											○	○		▲	▲														
		VBMW 160408	0,8											○	○		▲	▲														

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

V DIAMOND TYPE
INSERTS FOR TURNING

35° Diamond Type | 5° Relief | With Insert Hole



Dimensions (mm)				
VB_ _	L	IC	S	D_1
1103..	11,1	6,35	3,18	2,8
1604..	16,6	9,525	4,76	4,4

⇨ D38 ⇨ E21–22

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

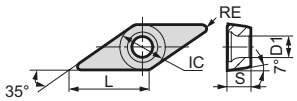
VBGT ●●●●●● ●-■■

● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P: AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M: AC6020M	AC6030M	AC6040M	PM: AC630M	AC4010K	AC4015K	K: AC420K	AC405K	AC415K	H: AC503U	S: AC5015S	AC5025S	KS: AC510U	MS: AC520U	PM: AC1030U	AC530U	Cermet Coated P: T1500Z	T3000Z	Cermet Uncoated P: T1000A	T1500A	Carbide Uncoated K: G10E	S: EH510	EH520	N: H1
Finishing	L/RFX	VBGT 110301 LFX	0,1																					○	○	○		○	○				
		VBGT 110302 LFX	0,2																					○	○	○		○					
		VBGT 110304 LFX	0,4																					○	○	○		○	○				
		VBGT 160402 LFX	0,2																									○	○				
		VBGT 160404 LFX	0,4																									○	○				
		VBGT 110301 RFX	0,1																					○	○	○		○	○				
		VBGT 110302 RFX	0,2																					○	○	○		○	○				
		VBGT 110304 RFX	0,4																					○		○		○	○				
		VBGT 160402 RFX	0,2																									○	○				
		VBGT 160404 RFX	0,4																									○	○				
Finishing	L/RFYS	VBGT 1103003 LFYS	0,03																					○									
		VBGT 110301 LFYS	0,1																					○									
		VBGT 110302 LFYS	0,2																					○									
		VBGT 110304 LFYS	0,4																					○									
		VBGT 110308 LFYS	0,8																					○									
		VBGT 1103003 RFYS	0,03																					○									
		VBGT 110301 RFYS	0,1																					○									
		VBGT 110302 RFYS	0,2																					○									
		VBGT 110304 RFYS	0,4																					○									
		VBGT 110308 RFYS	0,8																					○									
Finishing	L/RFY	VBGT 110301 LFY	0,1																					○		○		○	○				
		VBGT 110302 LFY	0,2																					○	○								
		VBGT 110304 LFY	0,4																					○									
		VBGT 110301 RFY	0,1																					○		○		○	○				
		VBGT 110302 RFY	0,2																					○		○		○	○				
		VBGT 110304 RFY	0,4																					○									
Light Cut	NSI	VBGT 110301M NSI	<0,1																					○									
		VBGT 110302M NSI	<0,2																					○									
		VBGT 110304M NSI	<0,4																					○	○								
		VBGT 110308M NSI	<0,8																					○									
		VBGT 160401M NSI	<0,1																					○									
		VBGT 160402M NSI	<0,2																					○									
		VBGT 160404M NSI	<0,4																					○									
		VBGT 160408M NSI	<0,8																		●	●		○									

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

35° Diamond Type | 7° Relief | With Insert Hole



Dimensions (mm)				
VC__	L	IC	S	D_1
0802..	8,3	4,76	2,38	2,3
1103..	11,1	6,35	3,18	2,8
1604..	16,6	9,525	4,76	4,4

⇨ D39

"S…- SV…C" - Type
(⇨ Stock in Japan)

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

VCGT ●●●●●● ●-■■

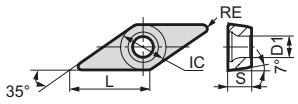
● G-Class

Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P	AC8025P	**AC8035P**	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	**AC4010K**	**AC4015K**	AC420K	AC405K	AC415K	AC503U	**AC5015S**	**AC5025S**	AC510U	AC520U	AC1030U	AC530U	T1500Z	T3000Z	T1000A	T1500A	G10E	EH510	EH520	H1
Finishing	NFC	**VCGT 080204M NFC**	<0,4																					○	○								
		VCGT 110301M NFC	<0,1																					●	●			○	○				
		VCGT 110302M NFC	<0,2																					●	●			○	○				
		VCGT 110304M NFC	<0,4																		○			●	●			○	○				
Finishing	L/RFX	**VCGT 110301 LFX**	0,1																		○		▲	●	●			○	●				
		VCGT 110302 LFX	0,2																		○		▲	●	●			○	●				
		VCGT 110304 LFX	0,4																					●	○								
		VCGT 110301 RFX	0,1																		○		▲	●	●			○	●				
		VCGT 110302 RFX	0,2																		○		▲	●	●			●	●				
		VCGT 110304 RFX	0,4																					○	○								
Finishing	L/RFY	**VCGT 110301 LFY**	0,1																					○									
		VCGT 110302 LFY	0,2																					○									
		VCGT 110304 LFY	0,4																					○									
		VCGT 110301 RFY	0,1																		○			○	○								
		VCGT 110302 RFY	0,2																		○			○									
		VCGT 110304 RFY	0,4																					○									
Light Cut	NAG	**VCGT 110302 NAG**	0,2																														●
		VCGT 110304 NAG	0,4																														●
		VCGT 160408 NAG	0,8																														●
		VCGT 160412 NAG	1,2																														○
		VCGT 220530 NAG	3,0																														○
Light Cut	NSI	**VCGT 110301M NSI**	<0,1										○							●	●	▲	▲	●	●	●		○	○				
		VCGT 110302M NSI	<0,2										○							●	●	▲	▲	●	●	●		○	○				
		VCGT 110304M NSI	<0,4										○							●	●	▲	▲	●	●	●			○				
		VCGT 110308M NSI	<0,8										○							●	●	▲	▲	●	●	●		○	○				
		VCGT 160401M NSI	<0,1										○							●	●	▲	▲	●	●	●		○	○				
		VCGT 160402M NSI	<0,2										○							●	●	▲	▲	●	●	●		○	○				
		VCGT 160404M NSI	<0,4										○							●	●	▲	▲	●	●	●		●	○				
		VCGT 160408M NSI	<0,8																					○									

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

V DIAMOND TYPE
INSERTS FOR TURNING

35° Diamond Type | 7° Relief | With Insert Hole



Dimensions (mm)				
VC_ _	L	IC	S	D_1
0802..	8,3	4,76	2,38	2,3
1103..	11,1	6,35	3,18	2,8
1604..	16,6	9,525	4,76	4,4

⇨ D39

"S…- SV…C" - Type
(⇨ Stock in Japan)

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

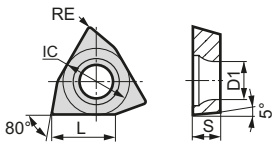
VCMT ●●●●●● ●-■■

● M-Class

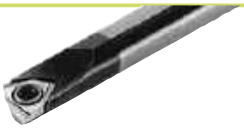
Application	Shape	ISO Cat. No.	RE	Carbide Coated P AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	M AC6020M	AC6030M	AC6040M	PM AC630M	K AC4010K	AC4015K	AC420K	AC405K	AC415K	H AC503U	S AC5015S	AC5025S	KS AC510U	MS AC520U	PM AC1030U	AC530U	Cermet Coated P T1500Z	T3000Z	Uncoated T1000A	T1500A	Carbide Uncoated K G10E	S EH510	EH520	N H1
Finishing	NFB Depth of cut (mm) 0 1 2; 0,1 0,2 0,3 Feed rate (mm/rev)	VCMT 080202 NFB	0,2																						○	●	○	○	○				
		VCMT 080204 NFB	0,4																						○	●	○	○	○				
		VCMT 160404 NFB	0,4																						○	●	○	○	○				
		VCMT 160408 NFB	0,8																						○	●	○	○	○				
Finishing	NLU Depth of cut (mm) 0 1 2; 0,1 0,2 0,3 Feed rate (mm/rev)	VCMT 160404 NLU	0,4	○	○					○	○															○	○	○	○				
		VCMT 160408 NLU	0,8	○	○					○																○	○	○	○				
Light Cut	NLB Depth of cut (mm) 0 1 2; 0,1 0,2 0,3 Feed rate (mm/rev)	VCMT 080202 NLB	0,2		○	○		▲	▲	○	○	○														○	○						
		VCMT 080204 NLB	0,4		○	○		▲	▲	○	○	○														○	○						
		VCMT 160404 NLB	0,4		○	○		▲	▲	○	○	○														○	○						
		VCMT 160408 NLB	0,8		○	○		▲	▲	○	○	○														○	○						
Light Cut	NSU Depth of cut (mm) 0 1 2 3; 0,1 0,2 0,3 Feed rate (mm/rev)	VCMT 080204 NSU	0,4							○	○	●	○												○								
		VCMT 110302 NSU	0,2							●	●		●																				
		VCMT 110304 NSU	0,4		○			▲		●	●		●																				
		VCMT 110308 NSU	0,8		○					●	●		○																				
		VCMT 160404 NSU	0,4	●	●	●	▲	▲	▲	●	●	○	●				▲	▲		●	●	▲	▲		●								
		VCMT 160408 NSU	0,8	●	●	●	▲	▲	▲	●	●		●				▲	▲				▲	▲		●								
Light Cut	NSK Depth of cut (mm) 0 1 2 3; 0,1 0,2 0,3 Feed rate (mm/rev)	VCMT 160404 NSK	0,4		●	●	▲	▲													●			▲								
		VCMT 160408 NSK	0,8		●	●	▲	▲												●	●			▲								

● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

80° Trigon Type | 5° Relief | With Insert Hole



Dimensions (mm)				
WB__	L	IC	S	D_1
0601..	3,2	3,97	1,59	2,2
0802..	4,6	4,76	2,38	2,4

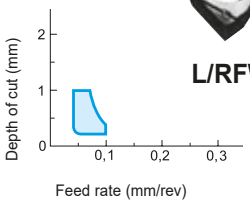
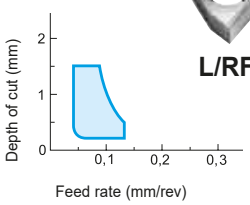
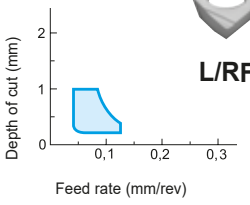
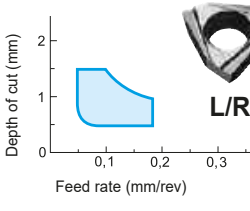


⇨ E23

- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WBGT ●●●●●● ●-■■

● G-Class Handed Chipbreaker

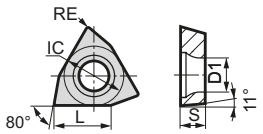
Application	Shape	ISO Cat. No.	RE	Carbide Coated P	Carbide Coated P/M	Carbide Coated M	Carbide Coated P/M	Carbide Coated K	Carbide Coated H	Carbide Coated S	Carbide Coated K/S	Carbide Coated M/S	Carbide Coated P/M	Cermet Coated P	Cermet Uncoated P	Carbide Uncoated P	Carbide Uncoated K	Carbide Uncoated S	Carbide Uncoated N
				AC8015P AC8025P AC8035P AC810P AC820P AC830P	AC6020M AC6030M AC6040M	AC630M AC4010K AC4015K	AC420K AC405K AC415K	AC503U AC5015S AC5025S	AC510U AC520U	AC1030U AC530U	T1500Z T3000Z	T1000A T1500A	G10E EH510 EH520	H1
Finishing	 L/RFW 	WBGT 060102 LFW	0,2										○	○				
		WBGT 060104 LFW	0,4										○	○				
		WBGT 080202 LFW	0,2										○	○				
		WBGT 080204 LFW	0,4										○					
		WBGT 060102 RFW	0,2										○	○				
		WBGT 060104 RFW	0,4										○	○				
		WBGT 080202 RFW	0,2										○	○				
		WBGT 080204 RFW	0,4										○	○				
Finishing	 L/RFX 	WBGT 060102 LFX	0,2								●	●						
		WBGT 060104 LFX	0,4								●	●						
		WBGT 080202 LFX	0,2								○	○						
		WBGT 080204 LFX	0,4								○	○						
		WBGT 060102 RFX	0,2								●	○						
		WBGT 060104 RFX	0,4								●	○						
		WBGT 080202 RFX	0,2								○	○						
		WBGT 080204 RFX	0,4								○							
Finishing	 L/RFY 	WBGT 0601003 LFY	0,03													○		
		WBGT 060101 LFY	0,1													○		
		WBGT 060102 LFY	0,2								○	○		○		○		
		WBGT 060104 LFY	0,4								○	○		○		○		
		WBGT 080201 LFY	0,1											○		○		
		WBGT 080202 LFY	0,2											○		○		
		WBGT 080204 LFY	0,4											○		○		
		WBGT 060101 RFY	0,1													○		
		WBGT 060102 RFY	0,2								○			○		○		
		WBGT 060104 RFY	0,4								○	○		○		○		
		WBGT 080201 RFY	0,1											○		○		
		WBGT 080202 RFY	0,2											○		○		
		WBGT 080204 RFY	0,4											○		○		
Finishing ~ Light Cut	 L/RW 	WBGT 060102 LW	0,2								●	●		○		●		
		WBGT 060104 LW	0,4								●	●		○		●		
		WBGT 060102 RW	0,2								●	●		○		●		
		WBGT 060104 RW	0,4								●	●		○		●		

Depth of cut (mm) 0 1 2 — 0,1 0,2 0,3 Feed rate (mm/rev)

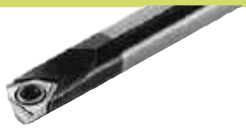
● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

W TRIGON TYPE
INSERTS FOR TURNING

80° Trigon Type | 11° Relief | With Insert Hole



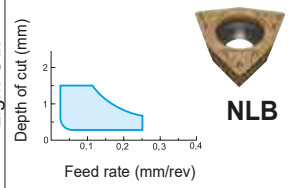
Dimensions (mm)				
WP_ _	L	IC	S	D_1
1102..	4,3	6,35	2,38	2,8
1603..	6,5	9,525	3,18	4,4



- P Steel
- M Stainless Steel
- K Cast Iron
- N Non-Ferrous Metals
- S Super Alloy
- H Hardened Steel

WPMT ●●●●●● NLB

● M-Class

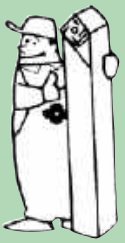
Application	Shape	ISO Cat. No.	RE	Carbide Coated AC8015P	AC8025P	AC8035P	AC810P	AC820P	AC830P	AC6020M	AC6030M	AC6040M	AC630M	AC4010K	AC4015K	AC420K	AC405K	AC415K	AC503U	AC5015S	AC5025S	AC510U	AC520U	AC1030U	AC530U	Cermet Coated T1500Z	T3000Z	T1000A	T1500A	Cermet Uncoated G10E	Carbide Uncoated EH510	EH520	H1
Light Cut	 NLB	**WPMT 110204 NLB**	0,4	○				▲	▲	○	●	●														○	○		○				
		WPMT 160308 NLB	0,8	○				▲	▲	○	●	●														○	○		○				

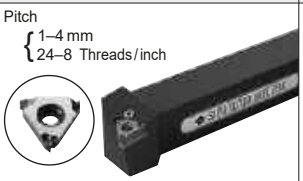
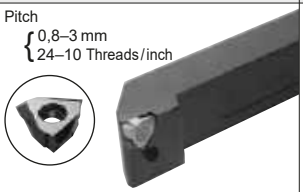
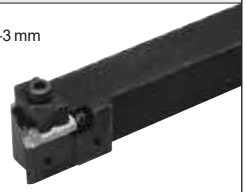
● = Euro stock
○ = Japan stock
▲ = To be replaced by new item

External Holders

D

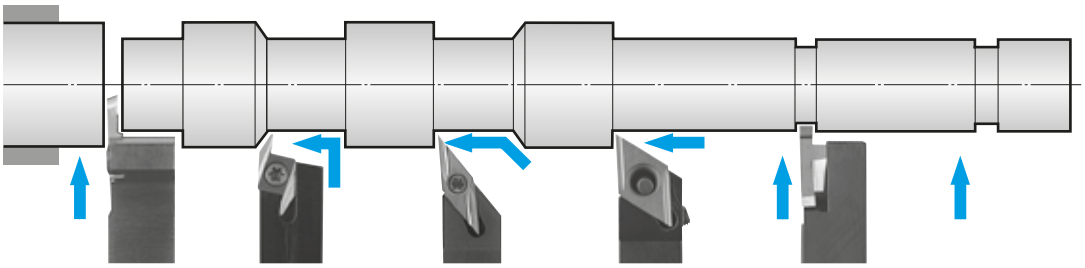
D1–D46



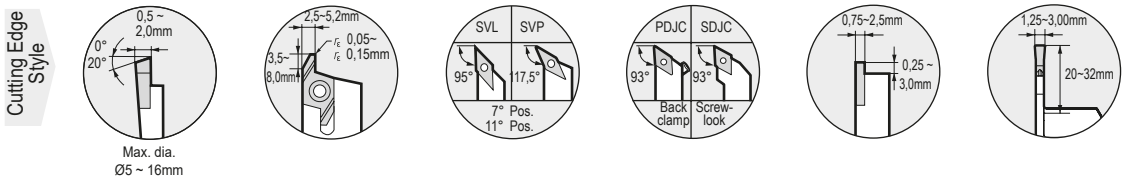
Application	For Neg. Inserts	For Pos. Inserts	Special Type for Hardened Steel
General Turning	**P Type Lever Lock Type**  ⇨ D18–D22	**P Type Lever Lock Type**  ⇨ D31, D32	**D Type Double Lock Type**   ⇨ D12–D17 ⇨ D41–D42
	M Type Double Lock Type  ⇨ D23–D24	**S Type Screw On Type**   D31–D33 ⇨ D35–D37 ⇨D43–D45	**C Type Top Clamp Type**  ⇨ D25–D26
Copying	**T-REX**  ⇨D10–D11	**S Type Screw On Type**   ⇨D38–D39 ⇨D43–D45	**D Type Double Lock Type**   ⇨ D13, D16 ⇨ D41
Parting-Off Grooving	**GNDS, GNDM, GNDMS Type General Grooving**  ⇨F16, F18, F20 ⇨ F36-F39	**GNDL, GNDLS Type Deep Grooving**  ⇨ F16, F24 ⇨ F36-F39	**GNDF, GNDFS Type Axial Grooving**  ⇨ F32, F34 ⇨ F36-F39
	SCT and GWC Type  ⇨ F40–F44 ⇨ F41	**Sumi Grip and Sumi Grip Jr.**  ⇨ F45–F50	**GWB Type Hard Grooving**  ⇨ M42 ⇨ M43
Threading	**LTE and STE Type** Pitch { 1–4 mm / 24–8 Threads/inch  ⇨ F54	**THE Type** Pitch { 0,8–3 mm / 24–10 Threads/inch  ⇨ Stock in Jp.	**BNGG-TT Type Hard Threading** Pitch 1–3 mm  ⇨ M44

PSC Available in Polygon-Shank-Design

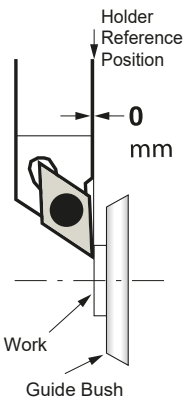
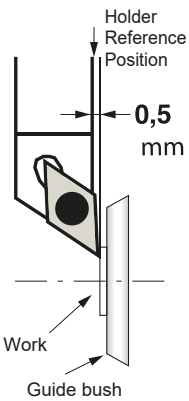
External Turning



Usage / Type	Cut - Off	Back Turning	Copying	General Turning	Grooving	Grooving & Cut-Off
	SCT Type	SBT Type	SV Type	P / S Type	GWC Type	GND Type



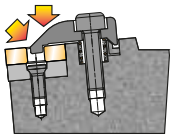
Holder Selection for Autolathe

	Offset - 0 mm Type Holders	Offset - 0,5 mm Type Holders
Tooling		
Features	Program correction is not necessary.	The position of cutting edge can be put in near guide bush through a program correction.
Holder Types	SDJC-X, SDAC-X SDLC-X, SCAC-X SVJC-X (⇨ Stock in Japan)	PDJC, SDJC, SDAC PCLC, SCAC STAC, SVLC

External Tool Holder Series

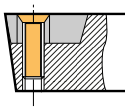
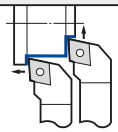
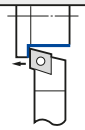
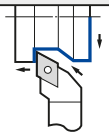
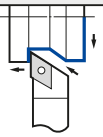
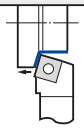
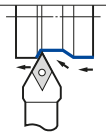
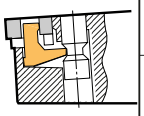
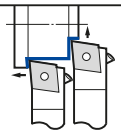
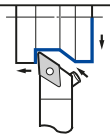
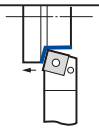
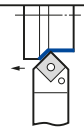
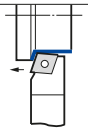
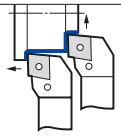
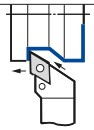
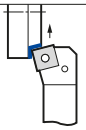
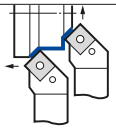
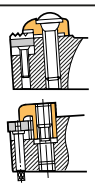
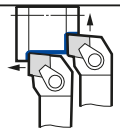
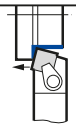
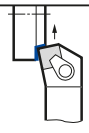
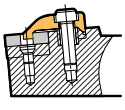
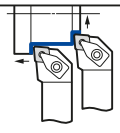
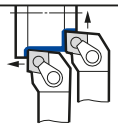
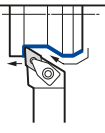
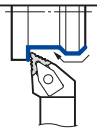
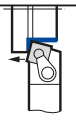
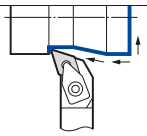
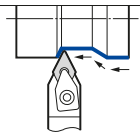
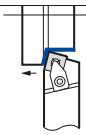
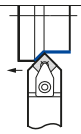
Lever Lock System

Double Lock (D)

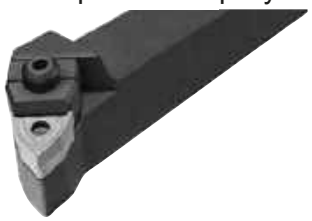


D Type "Double Clamp" Holders
for high performance machining

■ TOOLING SELECTION

Application			General Turning & Facing		General Turning & Copying			General Turning	
Insert Type / System			80° Diamond Type		55° Diamond Type		T-REX 55°	90° Square Type	
Screw Lock System	S Type Mini Holder		 **SCLC** ⇨ D31	 **SCAC** ⇨ D31	 **SDJC** ⇨ D32 **SDHC** ⇨ D32	 **SDAC** ⇨ D33	–	–	 **SSBC** ⇨ D36
			–	–	 **SDNC** ⇨ D33	–	–	–	–
Lever Lock System	P Type (* Side Lever Lock Type)		 **PCLC** (*) ⇨ D31	–	 **PDJC** (*) ⇨ D32	–	–	 **PSBN** ⇨ D20	 **PSDN** ⇨ D20
			 **PCBN** ⇨ D18	 **PCLN** ⇨ D18	 **PDJN** ⇨ D19	–	–	 **PSKN** ⇨ D21	 **PSSN** ⇨ D21
Top-On Clamp System	C & M Type		 **CCLN** ⇨ D25	–	–	–	–	 **CSBN** ⇨ D25	 **CSKN** ⇨ D25
Double Lock (D) Dimple Lock (X)	D & X Type		 **DCLN** ⇨ D12	 **XCLN** ⇨ D27	 **DDJN** ⇨ D13	–	 **DTR** ⇨ D11	 **XSBN** ⇨ D27	–
			–	–	 **DDHN** ⇨ D13	 **DDNN** ⇨ D13	–	 **DSBN** ⇨ D14	 **DSDN** ⇨ D14

Top-On Clamp System



Screw Lock System

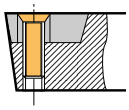
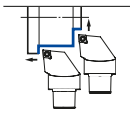
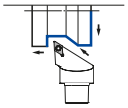
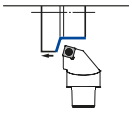
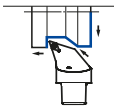
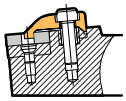
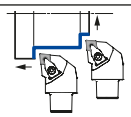
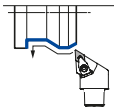
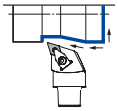
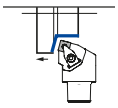
■ TOOLING SELECTION

Application		General Turning			Copying		General Turning	Special Turning	
Insert Type / System		60° Triangle Type			35° Diamond Type		80° Trigon Type	Round and Special Purpose Inserts	
Screw Lock System	S Type Mini Holder	STAC ⇨ D37	STGC ⇨ D37	–	SVJB ⇨ D38 SVLC ⇨ D39	SVVB ⇨ D38	–	SRDC ⇨ D35	SRSC ⇨ D35
		–	–	–	SVPB ⇨ D38 SVPC ⇨ D39	–	–	SBT ⇨ D30	–
Lever Lock System	P Type	PTGN ⇨ D22	PTFN ⇨ D22	PTTN ⇨ D22	–	–	PWLN ⇨ D24	PRDC ⇨ D34	PRGC ⇨ D34
		–	–	–	–	–	–	–	–
Top-On Clamp System	C & M Type	MTJN ⇨ D23	MTXN ⇨ D23	–	–	–	MWLN ⇨ D24	CRDN ⇨ D26	CRSN ⇨ D26
Double Lock (D) Dimple Lock (X)	D & X Type	DTJN ⇨ D15	DTFN ⇨ D15	–	DVJN ⇨ D16	–	DWLN ⇨ D17	–	–
		DTGN ⇨ D15	–	–	DVQN ⇨ D16	DVVN ⇨ D16	–	–	–

Polygon - Shank Holder - Produced According to ISO 26623-1

Negative Insert Type

■ TOOLING SELECTION

Application			General Turning & Facing		General Turning & Copying			General Turning	
Insert Type / System			80° Diamond Type		55° Diamond Type		T-REX 55°	90° Square Type	
Screw Lock System	S Type Mini Holder		 **SCLC** ⇨ D43	—	 **SDJC** ⇨ D43	—	—	—	 **SSBC** ⇨ D43
			—	—	 **SDHC** ⇨ D43	—	— SRSCR	—	—
Double Lock (D)	D Type		 **DCLN** ⇨ D41	—	 **DDJN** ⇨ D41	—	—	—	—
			—	—	 **DDHN** ⇨ D41	—	—	 **DSBN** ⇨ D41	—

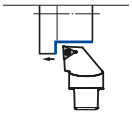
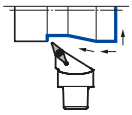
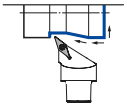
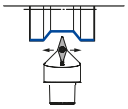
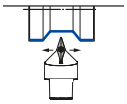
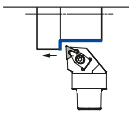
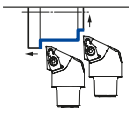
■ Classification System for Polygon - Shank Holder

P S C 4 0 - S C L C R 2 7 0 5 0 - 0 9

- **P S C** — Polygon Shank
- **4 0** — Size (ø*D*)
- **S** — Clamping System: D: Double Clamp; S: Screw Clamp
- **C** — Insert Shape
- **L** — Holder Style
- **C** — Seat Clearance Angle: N = 0°; C = 7°; P = 11°
- **R** — Feed Direction: R: Right Hand; L: Left Hand; N: Neutral
- **2 7** — Size (*f*)
- **0 5 0** — Holder Length (L_1)
- **0 9** — Insert Cutting Edge Length

Positive Insert Type

TOOLING SELECTION

Application		General Turning			Copying		General Turning	Special Turning	
Insert Type / System		60° Triangle Type			35° Diamond Type		80° Trigon Type	Round and Special Purpose Inserts	
Screw Lock System	S Type Mini Holder	 **STJC** ⇨ D44	—	—	 **SVJB** ⇨ D44 **SVHB** ⇨ D44	 **SVJC** ⇨ D45 **SVHC** ⇨ D45	—	—	—
		—	—	—	 **SVVB** ⇨ D44	 **SVVC** ⇨ D45	—	—	—
Double Lock (D)	D Type	 **DTJN** ⇨ D42	—	—	—	—	 **DWLN** ⇨ D42	—	—
		—	—	—	—	—	—	—	—

Classification System for Polygon - Shank Holder

P S C 5 0 - S T J C R 3 5 0 6 0 - 1 6

- Polygon Shank
- Size (ø*D*)
- Clamping System D: Double Clamp S: Screw Clamp
- Insert Shape
- Holder Style
- Seat Clearance Angle N = 0° C = 7° P = 11°
- Feed Direction R: Right Hand L: Left Hand N: Neutral
- Size (*f*)
- Holder Length (L_1)
- Insert Cutting Edge Length

ISO Holders Identification

■ Catalogue Classification System for Tool Holders

D	T	F	N	R	25	25	M	16	E
Clamping System Chart 1	Insert Shape Chart 2	Holder Style Chart 3	Seat Clearance Angle Chart 4	Feed Direction Chart 5	Shank Height Chart 6	Shank Width Chart 7	Shank Length Chart 8	Insert Size Chart 9	For D-Type Euro-Inserts D□□□1506○○

DTFNR2525M16

Clamping: Double clamp system
Shape: Triangular insert with 91° approach angle
Shank: H = 25mm, W = 25mm, L = 150mm

External Holders

Chart 1

Clamping System					
Symbol	Clamp Types	Example of Structure	Symbol	Clamp Types	Example of Structure
C	Top Clamp		M	Top & Hole Clamp Type	
D	Double Clamp		P	Lever Lock Type (Insert is Supported by 1 face)	
E	Pin Lock Type (Insert is supported by 1 face)		S	Screw Clamp Type	

Chart 2

Insert Shape					
Symbol	Insert Shape		Symbol	Insert Shape	
A	Parallelogram 85°		M	Rhombic 86°	
B	Parallelogram 82°		O	Octagonal	
C	Diamond 80°		P	Pentagonal	
D	Diamond 55°		R	Round	
E	Diamond 75°		S	Square	
F	Diamond 50°		T	Triangular	
H	Hexagonal		V	Diamond 35°	
K	Parallelogram 55°		W	Trigon	
L	Rectangular				

Chart 4

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

Chart 5

Feed Direction					
Symbol	Right Hand Feed	Symbol	Neutral Feed	Symbol	Left Hand Feed
R		N		L	

Chart 3

Holder Style					
Symbol	Shape	Offset	Symbol	Shape	Offset
A	90i	Nil	L	95i 95i	With Offset
B	75i	Nil	N	63i	Nil
D	45i	Nil	R	75i	With Offset
E	60i	Nil	S	45i	With Offset
F	90i	With Offset	T	60i	With Offset
G	90i	With Offset	U	93i	With Offset
J	93i	With Offset	W	60i	With Offset
K	75i	With Offset	Y	85i	With Offset

Chart 6

Shank Height	
Symbol	Height (mm)
12	12
16	16
20	20
25	25
32	32
40	40
50	50
00	Round shank, Shank Diamater is Shown for Round Shank,

2 digits are used for each dimension in mm.

Chart 7

Shank Width	
Symbol	Width (mm)
12	12
16	16
20	20
25	25
32	32
40	40
50	50

Chart 8

Shank Length	
Symbol	Length (mm)
F	80
H	100
K	125
M	150
N	160
P	170
Q	180
S	250
T	300
U	350

For some Products, a Hypen is used Instead of an alphabet.

Chart 9

Cutting Edge	
Symbol	Length (mm)

Eg. for Triangle Inserts:

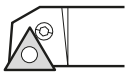
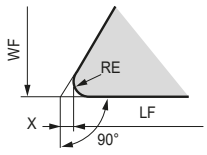
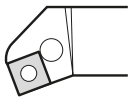
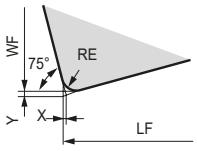
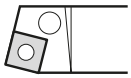
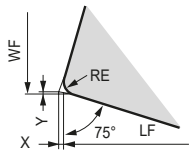
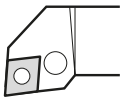
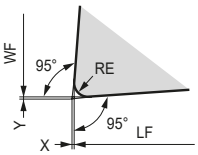
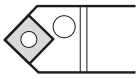
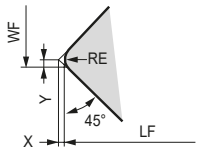
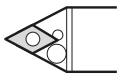
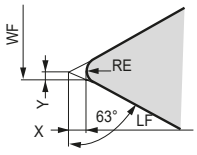
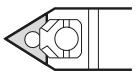
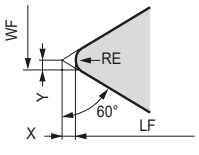
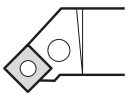
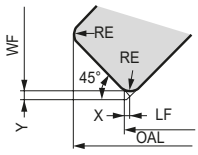
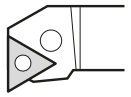
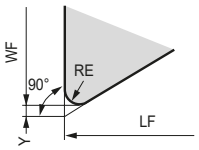
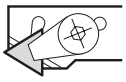
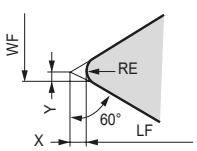
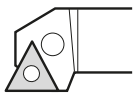
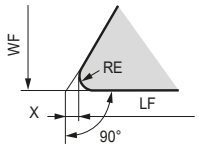
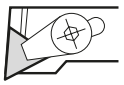
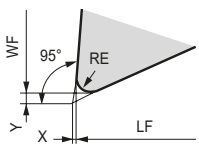
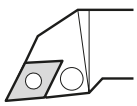
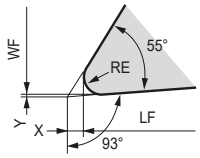
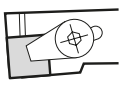
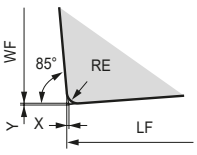
06	6,9
08	8,2
09	9,6
11	11,0
16	16,5
22	22,0
27	27,5
33	33,0

For Round Inserts:

10	10
12	12
16	16
20	20
25	25
32	32

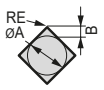
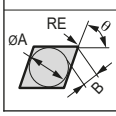
■ Cutting Edge Dimensions by Corner Radius

(This table shows X and Y dimensions based on 0° approach angle cutting edge inclination)

Holders			Dimensions(mm)			Holders			Dimensions(mm)		
Symbol	Shapes	Corner Shapes	RE	X	Y	Symbol	Shapes	Corner Shapes	RE	X	Y
A			0,4	0,291	–	K			0,4	0,024	0,089
			0,8	0,581	–				0,8	0,048	0,178
			1,2	0,872	–				1,2	0,072	0,268
			1,6	1,162	–				1,6	0,096	0,357
			2,4	1,743	–				2,4	0,143	0,535
B			0,4	0,089	0,024	L			0,4	0,040	0,040
			0,8	0,178	0,048				0,8	0,079	0,079
			1,2	0,268	0,072				1,2	0,119	0,119
			1,6	0,357	0,096				1,6	0,159	0,159
			2,4	0,535	0,143				2,4	0,238	0,238
D			0,4	0,164	0,164	N			0,4	0,463	0,263
			0,8	0,329	0,329				0,8	0,925	0,471
			1,2	0,493	0,493				1,2	1,388	0,707
			1,6	0,658	0,658				1,6	1,850	0,943
			2,4	0,986	0,986				2,4	2,776	1,414
E			0,4	0,396	0,229	S			0,4	0,164	0,164
			0,8	0,793	0,458				0,8	0,329	0,329
			1,2	1,190	0,687				1,2	0,493	0,493
			1,6	1,587	0,916				1,6	0,658	0,658
			2,4	2,381	1,374				2,4	0,986	0,986
F			0,4	–	0,291	T			0,4	0,396	0,229
			0,8	–	0,581				0,8	0,793	0,458
			1,2	–	0,872				1,2	1,190	0,687
			1,6	–	1,162				1,6	1,587	0,916
			2,4	–	1,743				2,4	2,381	1,374
G			0,4	0,291	–	U			0,4	0,253	0,058
			0,8	0,581	–				0,8	0,506	0,116
			1,2	0,872	–				1,2	0,759	0,175
			1,6	1,162	–				1,6	1,013	0,233
			2,4	1,743	–				2,4	1,519	0,350
J			0,4	0,344	0,033	Y			0,4	0,002	0,033
			0,8	0,687	0,079				0,8	0,005	0,066
			1,2	1,031	0,118				1,2	0,008	0,099
			1,6	1,375	0,157				1,6	0,011	0,132
			2,4	2,062	0,236				2,4	0,017	0,198

● Calculation of the Nose Radius Dimensions

(Unit in mm)

Insert Shape		Calculation
	Triangle	$B = \frac{3}{2}A - RE$
	Square	$B=(\sqrt{2}-1) \times (\frac{A}{2}-RE)$
	Rhombic	$B=\{\frac{1}{Sin(\theta/2)}-1\} \times (\frac{A}{2}-RE)$

Figures of „A“ and „RE“ to calculate Figure „B“

I.C. size (inch)		„øA“ dimensions (mm)
–	5/32	3,9688
–	6/32	4,7625
–	7/32	5,5562
2/8	8/32	6,3500
–	(0)	7,9375
3/8	–	9,5250
4/8	–	12,7000
5/8	–	15,8750
6/8	–	19,0500
8/8	–	25,4000

Nose symbol	Size (inch)	„RE“ dimension (mm)
02	(0)	0,203
04	1/64	0,397
08	2/64	0,794
12	3/64	1,191
16	4/64	1,588
24	6/64	2,389

T-REX Tool Holders

RIGIDITY - ECONOMY - PRECISION

SumiTurn T-REX

● T-REX clamping for maximum rigidity 50 % more cutting edges than a DNMG Insert

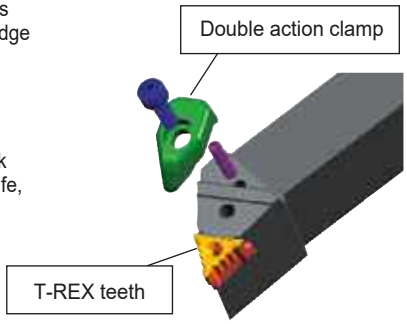
■ Advantages

● T-REX Inserts for Maximum Economy

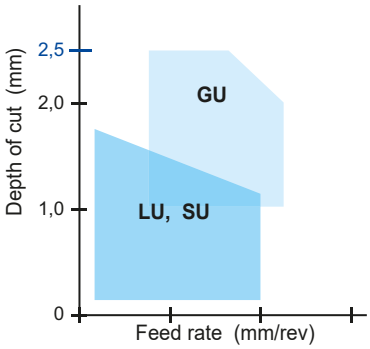
With 6 cutting edges and a 55 degree included angle - T-Rex is the intelligent alternative to profile turning with a traditional 4 edge DNMG insert.

● Biting Performance from T-REX Teeth

The double clamp tool holder and powerful teeth of T-REX lock the insert to eliminate movement, dramatically improving tool life, machining accuracy, and cutting edge security.

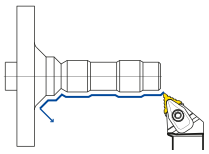


● Application Range

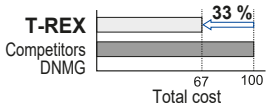


■ Application Examples

● 20Cr4 Shaft

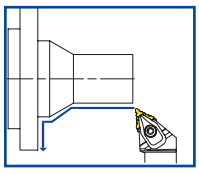


33 % cost saving

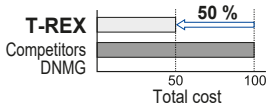


Insert: TRM551708-GU, AC2000
Cutting data: v_c= 150 m/min, f = 0,25 mm/rev, a_p < 2,0 mm, Wet

● 25CrMo4 Gear



1,3 times long tool life



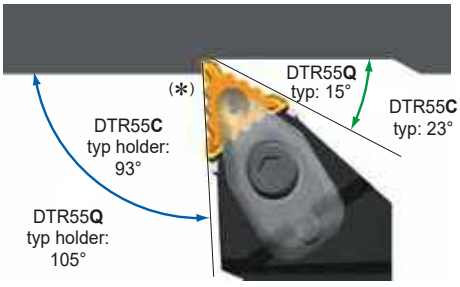
Insert: TRM551708-LU, AC900G
Cutting data: v_c= 220 m/min, f = 0,2–0,3 mm/rev, a_p < 1,0 mm, Wet

■ Recommendations

● Depth of Cut

Max. a_p = 2,5 mm

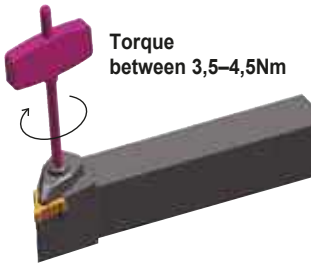
● Approach Angle



(*) Angle of major cutting edge

C-Type: 95,5°
Q-Type: 107,5°

● Insert Clamping



Recommended Tightening Torque (N·m)

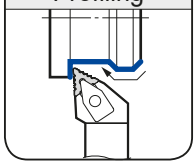
● = Euro stock
○ = Japan stock

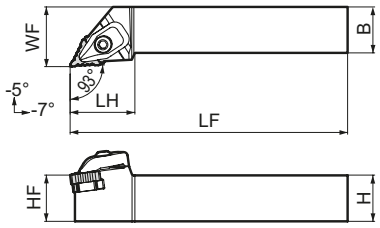
SumiTurn

External Turning & Copying

DTR55C

Profiling



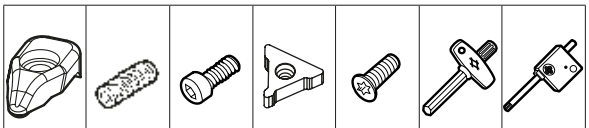


Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Screw	Shim	Screw	Wrench	Wrench
	R	L	H	HF	B	LF	LH	WF							
DTR 55C-R/L 2020-K17	●	●	20	20	20	125	35	25	TRCP3	S-SP4-20	BX0520 3,5-4,5 (Nm)	TRW5505	BFTX0307N 2,0 (Nm)	TSW040	TRX10(*)
DTR 55C-R/L 2525-M17	●	●	25	25	25	150	35	32							

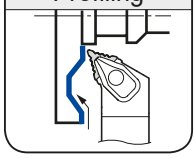
Spare Parts

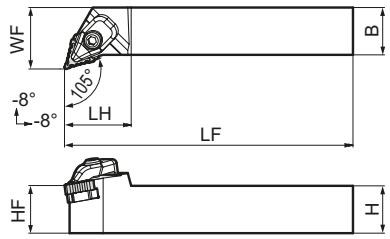


(*) Note: Wrench (TRX) for shim clamp screw is not included.

DTR55Q

Profiling



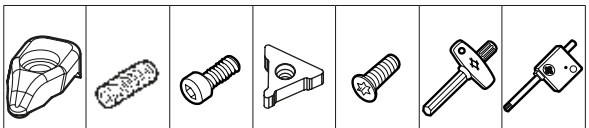


Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Screw	Shim	Screw	Wrench	Wrench
	R	L	H	HF	B	LF	LH	WF							
DTR 55Q-R/L 2020-K17	●	●	20	20	20	125	35	28,5	TRCP3	S-SP4-20	BX0520 3,5-4,5 (Nm)	TRW5505	BFTX0307N 2,0 (Nm)	TSW040	TRX10(*)
DTR 55Q-R/L 2525-M17	●	●	25	25	25	150	35	32							

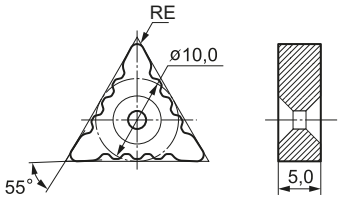
Spare Parts



(*) Note: Wrench (TRX) for shim clamp screw is not included.

Inserts

Applic.	Shape	Ordering No.	RE	Coated Carbide: New AC8015P	AC8025P	AC810P	AC820P	AC830P	AC630M	Coated Cermet: T3000Z
Fine Finishing	FL	TRM 551704-FL	0,4		❍					❍
		551708-FL	0,8		❍					❍
Finishing	LU	TRM 551704-LU	0,4	●	❍	▲	▲	▲		❍
		551708-LU	0,8	●	❍	▲	▲	▲		❍
		551712-LU	1,2	❍	❍	▲	▲			❍
	SU	TRM 551704-SU	0,4		❍		▲		❍	❍
		551708-SU	0,8		❍	▲	▲		❍	❍
		551712-SU	1,2		❍		▲		❍	
Light Cut	GU	TRM 551704-GU	0,4	❍	❍	▲	▲	▲	❍	
		551708-GU	0,8	❍	❍	▲	▲	▲	❍	
		551712-GU	1,2	❍	❍	▲	▲	▲		



Application P Steel
M Stainless steel

● Recommended Cutting Conditions

Cutting speed (m/min)

Grade		Coated Carbide: AC810P	AC8025P	AC820P	AC830P	AC630M	Coated Cermet: T3000Z
Work materials	Low carbon steel	220 400	150 350	150 350	120 300	120 300	100 400
	Alloy steel	150 300	100 250	100 250	80 200	80 230	100 250
	Stainless steel				50 150	100 160	
Application range	Finishing	◎	○	○	○	○	◎
	Medium cutting	○	◎	◎	○	◎	○
	Interrupted cutting		○	○	◎	○	○

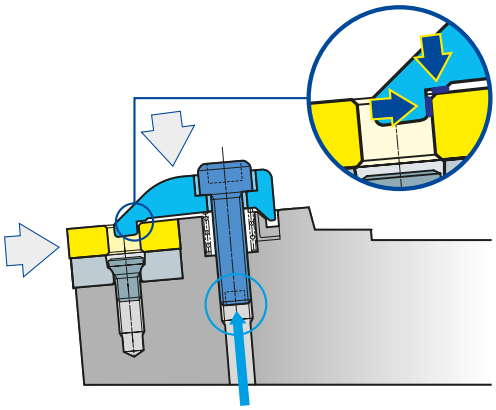
◎ Preferred choice ○ Suitable

Characteristics

Insert is clamping firmly for improved fracture resistance.
High indexing accuracy improves machining accuracy.
Insert can be changed from below the holder.
Suitable for high efficiency machining and interrupted cutting in hardened steel.

Clamp Mechanism

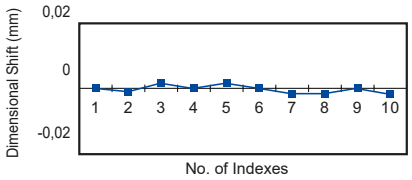
Secured in two directions and supported by two faces.



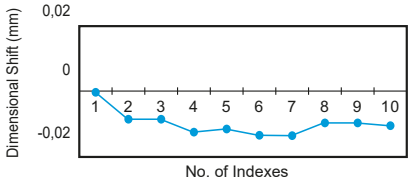
Insert can be changed from below the holder.

Index Accuracy Comparison (Length Wise)

D Type Tool Holders



Lever Lock



General Turning and Facing

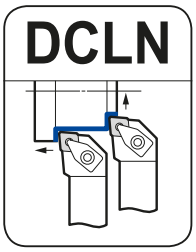
Inserts

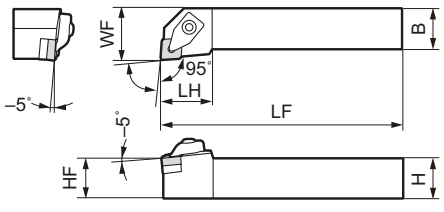
Eg.

N-GU

❶ CNMG 120408 N-GU
❷ CNMG 160608 N-GU
❸ CNMM 190612 N-HG
❹ CNMM 250924 N-HU

DCLN





Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
DCLN R/L 2020 K12	●	●	20	20	20	125	32	25	SCP2		5,0 (N·m)	CNS1204	BFTX0409N 3,4 (N·m)	TRX15(*)	LH040 LH025	❶
DCLN R/L 2525 M12	●	●	25	25	25	150	32	32								
DCLN R/L 2525 M16	●	●	25	25	25	150	32	32	SCP3		5,0 (N·m)	CNS1606	BFTX0509N 5,0 (N·m)	TRX20(*)	LH040 LH025	❷
DCLN R/L 3232 P16	●	●	32	32	32	170	32	40								
DCLN R/L 3232 P19	●	●	32	32	32	170	42	40	SCP5		5,0 (N·m)	CNS1906	BFTX0511N 5,0 (N·m)	TRX20(*)	LH040 LH025	❸
DCLN R/L 4040 S19	●	●	40	40	40	250	42	50								
DCLN R/L 4040 S25	●	●	40	40	40	250	53	50	SCP6		6,0 (N·m)	CNS2509	BFTX0615N 7,5 (N·m)	TRD25(*)	LH060	❹

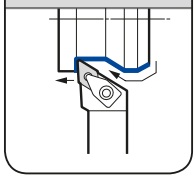
(*) Note: Wrench (TRX / TRD) for shim clamp screw is not included.

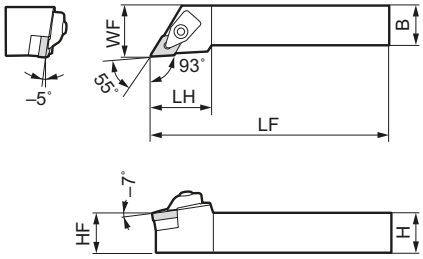
● = Euro stock ❑ = Delivery on request (N·m) Recommended Tightening Torque (N·m)

External Tool Holders
D Type (Double Clamp)

General Turning and Copying

DDJN





Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
DDJN R/L 2020 K15			20	20	20	125	38	25	SCP2 5,0 (N·m)			DNS1504	BFTX0409N 3,4 (N·m)	TRX15(*)	LH040	❶
DDJN R/L 2020 K15E	●	●	20	20	20	125	38	25				DNS1506				❷
DDJN R/L 2525 M15	❑		25	25	25	150	38	32				DNS1504				❶
DDJN R/L 2525 M15E	●	●	25	25	25	150	38	32				DNS1506				❷

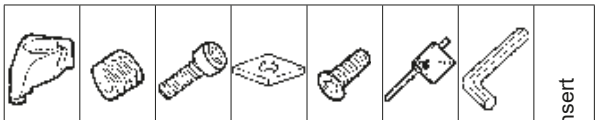
Inserts

Eg.

N-GU

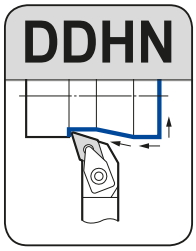
❶ DNMG 150408 N-GU
❷ DNMG 150608 N-GU

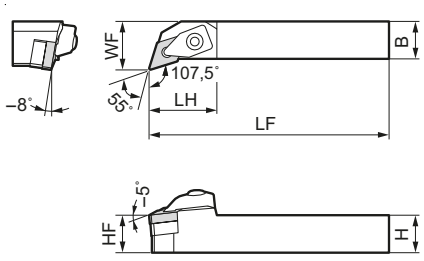
Spare Parts



(*) Note: Wrench (TRX) for shim clamp screw is not included.

DDHN





Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
DDHN R/L 2020 K15E	●	●	20	20	20	125	35	25	SCP2 5,0 (N·m)			DNS1506	BFTX0409N 3,4 (N·m)	TRX15(*)	LH040	❷
DDHN R/L 2525 M15E	●	●	25	25	25	150	35	32								

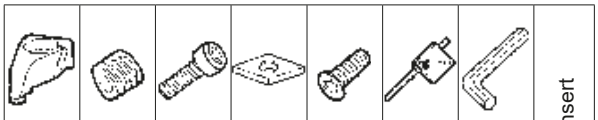
Inserts

Eg.

N-GU

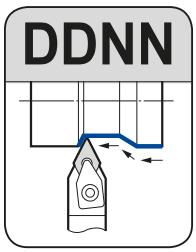
❷ DNMG 150608 N-GU

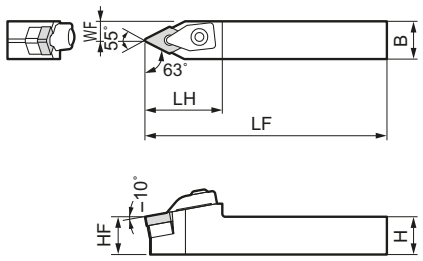
Spare Parts



(*) Note: Wrench (TRX) for shim clamp screw is not included.

DDNN





Holders

Above figures show right hand tools.

Cat. No.	Stock	Dimensions (mm)						Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
		H	HF	B	LF	LH	WF								
DDNN R/L 2020 K15E	●	20	20	20	125	40	10,5	SCP2 5,0 (N·m)			DNS1506	BFTX0409N 3,4 (N·m)	TRX15(*)	LH040	❷
DDNN R/L 2525 M15E	●	25	25	25	150	40	13,0								

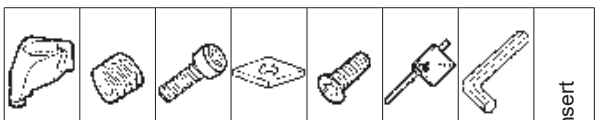
Inserts

Eg.

N-GU

❷ DNMG 150608 N-GU

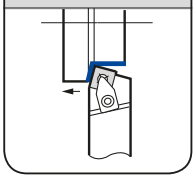
Spare Parts

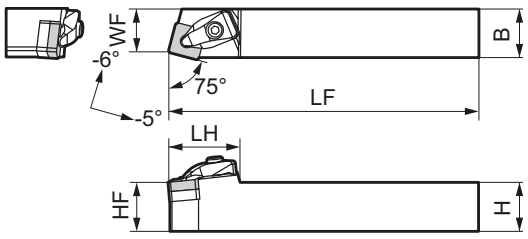


(*) Note: Wrench (TRX) for shim clamp screw is not included.

General Turning and Facing

DSBN





Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)					
	R	L	H	HF	B	LF	LH	WF
DSBN R/L 3232 P19	●	●	32	32	32	170	45	27
DSBN R/L 4040 S2507	●	●	40	40	40	250	58	35
DSBN R/L 4040 S2509	●	●	40	40	40	250	58	35

Inserts

Eg.

N-UZ, N-HU

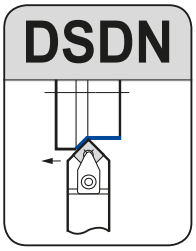
❶ SNMG 190612 N-UZ
❷ SNMM 250724 N-HU
❸ SNMM 250924 N-HU

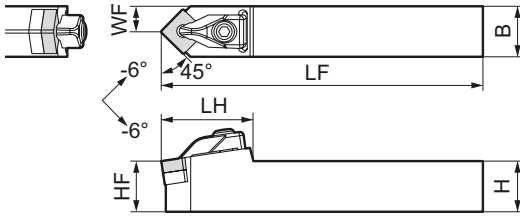
Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
SCP5		5,0 (N·m)	SNS1906	BFTX0511N 5,0 (N·m)	TRX20(*)	LH040, LH025	❶
SCP6		6,0 (N·m)	SNS2507	BFTX0615N 7,5 (N·m)	TRD25(*)	LH060	❷
			SNS2509				❸

(*) Note: Wrench (TRX / TRD) for shim clamp screw is not included.

DSDN





Holders

Above figures show right hand tools.

Cat. No.	Stock	Dimensions (mm)					
		H	HF	B	LF	LH	WF
DSDN N 3232 P19	●	32	32	32	170	50	16
DSDN N 4040 S2507	●	40	40	40	250	63	20
DSDN N 4040 S2509	●	40	40	40	250	63	20

Inserts

Eg.

N-UZ, N-HU

❶ SNMG 190612 N-UZ
❷ SNMM 250724 N-HU
❸ SNMM 250924 N-HU

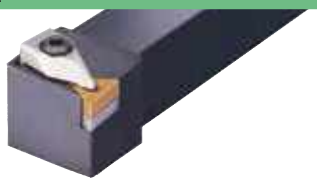
Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
SCP5		5,0 (N·m)	SNS1906	BFTX0511N 5,0 (N·m)	TRX20(*)	LH040, LH025	❶
SCP6		6,0 (N·m)	SNS2507	BFTX0615N 7,5 (N·m)	TRD25(*)	LH060	❷
			SNS2509				❸

(*) Note: Wrench (TRX / TRD) for shim clamp screw is not included.

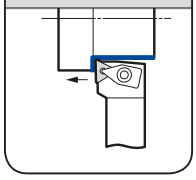
● = Euro stock ❑ = Delivery on request (N·m) Recommended Tightening Torque (N·m)

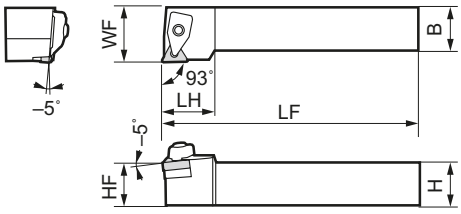
External Tool Holders
D Type (Double Clamp)



General Turning and Facing

DTJN





Inserts

Eg.

N-GU

❶ TNMG 160408 N-GU

Holders

Above figures show right hand tools.

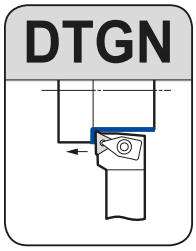
Cat. No.	Stock		Dimensions (mm)						Insert
	R	L	H	HF	B	LF	LH	WF	
DTGN R/L 2020 K16	●		20	20	20	125	31	25	❶
DTGN R/L 2525 M16	●	●	25	25	25	150	31	32	❶

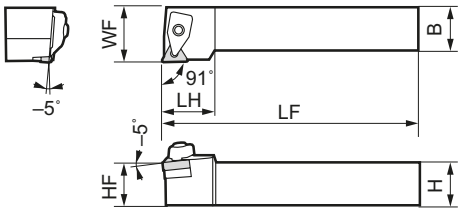
Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench
SCP1		5,0 N-m	TNS1604	BFTX0307N 2,0 N-m	TRX10(*)	LH040

(*) Note: Wrench (TRX) for shim clamp screw is not included.

DTGN





Inserts

Eg.

N-GU

❶ TNMG 160408 N-GU

Holders

Above figures show right hand tools.

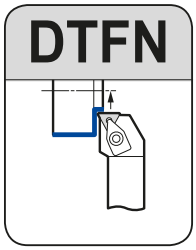
Cat. No.	Stock		Dimensions (mm)						Insert
	R	L	H	HF	B	LF	LH	WF	
DTGN R/L 2020 K16	❑		20	20	20	125	31	25	❶
DTGN R/L 2525 M16	●	●	25	25	25	150	31	32	❶

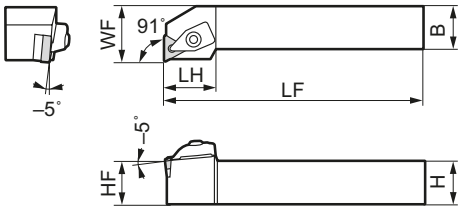
Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench
SCP1		5,0 N-m	TNS1604	BFTX0307N 2,0 N-m	TRX10(*)	LH040

(*) Note: Wrench (TRX) for shim clamp screw is not included.

DTFN





Inserts

Eg.

N-GU

❶ TNMG 160408 N-GU

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Insert
	R	L	H	HF	B	LF	LH	WF	
DTFN R/L 2020 K16	❑		20	20	20	125	30	25	❶
DTFN R/L 2525 M16	●	●	25	25	25	150	30	32	❶

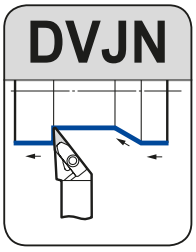
Spare Parts

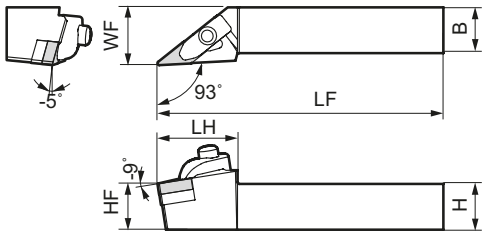
Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench
SCP1		5,0 N-m	TNS1604	BFTX0307N 2,0 N-m	TRX10(*)	LH040

(*) Note: Wrench (TRX) for shim clamp screw is not included.

General Turning and Copying

DVJN





Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)					
	R	L	H	HF	B	LF	LH	WF
DVJN R/L 2020 K16	●	●	20	20	20	125	35	25
DVJN R/L 2525 M16	●	●	25	25	25	150	35	32

Inserts

Eg.

❶ VNMG 160408 N-GU

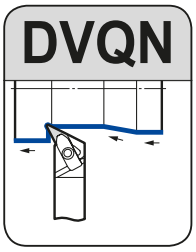
N-GU

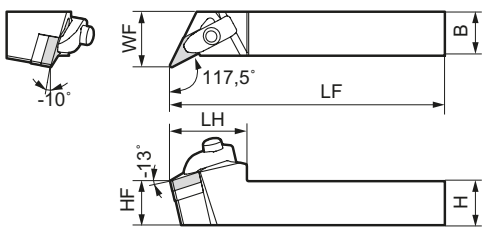
Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
SCP4		5,0 (N·m)	VNS1604	BFTX0307N 2,0 (N·m)	TRX10(*)	LH040 LH025	❶

(*) Note: Wrench (TRX) for shim clamp screw is not included.

DVQN





Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)					
	R	L	H	HF	B	LF	LH	WF
DVQN R/L 2020 K16	●	●	20	20	20	125	35	25
DVQN R/L 2525 M16	●	●	25	25	25	150	35	32

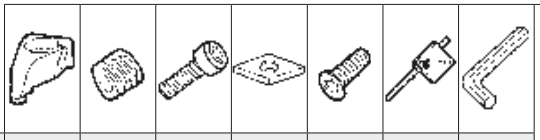
Inserts

Eg.

❶ VNMG 160408 N-GU

N-GU

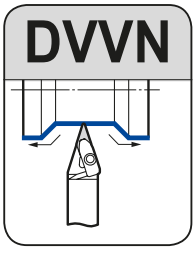
Spare Parts

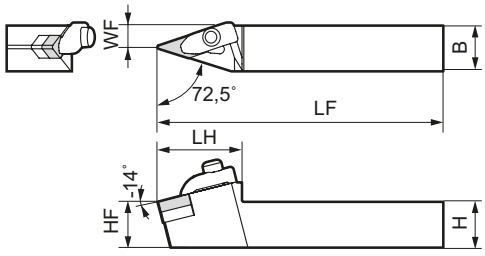


Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
SCP4		5,0 (N·m)	VNS1604	BFTX0307N 2,0 (N·m)	TRX10(*)	LH040 LH025	❶

(*) Note: Wrench (TRX) for shim clamp screw is not included.

DVVN





Holders

Above figures show right hand tools.

Cat. No.	Stock	Dimensions (mm)					
		H	HF	B	LF	LH	WF
DVVN N 2020 K16	●	20	20	20	125	37	10,0
DVVN N 2525 M16	●	25	25	25	150	37	12,5

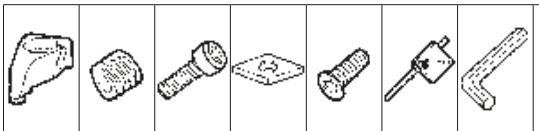
Inserts

Eg.

❶ VNMG 160408 N-GU

N-GU

Spare Parts



Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
SCP4		5,0 (N·m)	VNS1604	BFTX0307N 2,0 (N·m)	TRX10(*)	LH040 LH025	❶

(*) Note: Wrench (TRX) for shim clamp screw is not included.

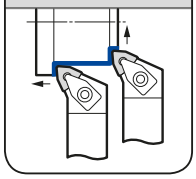
● = Euro stock

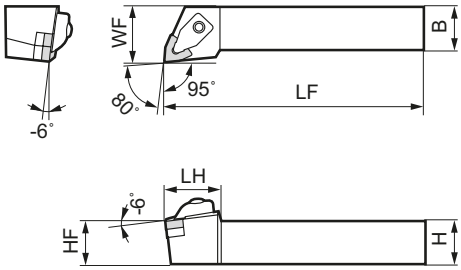
(N·m) Recommended Tightening Torque (N·m)

External Tool Holders
D Type (Double Clamp)

General Turning and Facing

DWLN





Inserts

Eg.

N-GU

❶ WNMG 080408 N-GU

Spare Parts

Holders

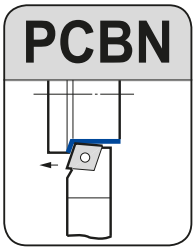
Above figures show right hand tools.

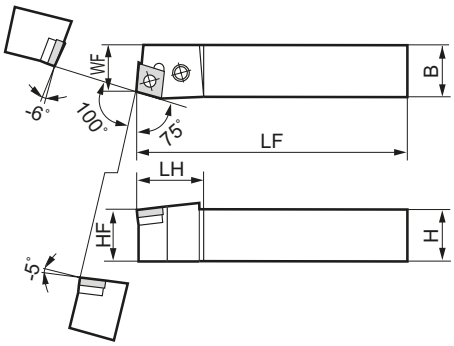
Cat. No.	Stock		Dimensions (mm)						Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
DWLN R/L 2020 K08	●	●	20	20	20	125	32	25	SCP2		5,0 N·m	WNS0804	BFTX0409N 3,4 N·m	TRX15(*)	LH040 LH025	❶
DWLN R/L 2525 M08	●	●	25	25	25	150	32	32								

(*) Note: Wrench (TRX) for shim clamp screw is not included.

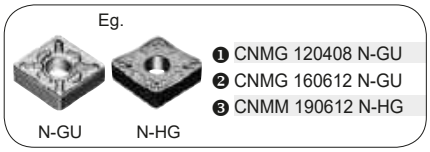
General Turning and Facing

PCBN





Inserts



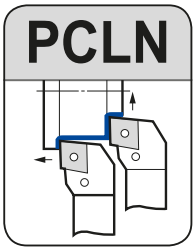
Spare Parts

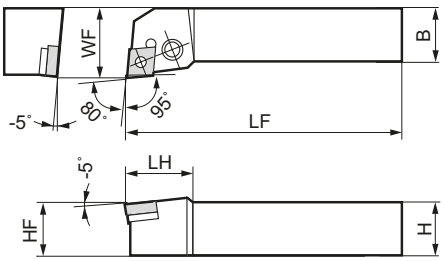
Holders

Above figures show right hand tools.

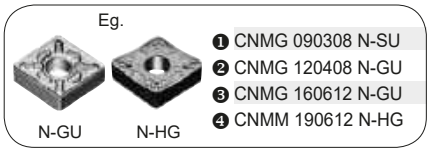
Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PCBN R/L 2020 K12	●	❑	20	20	20	125	27	17	LCL4SD	LCS42BS-SD	LSC42SD	LSP4SD	LH030	❶
PCBN R/L 2525 M12	●	●	25	25	25	150	27,7	22						
PCBN R/L 3225 P12	❑	●	32	32	25	170	27,7	22						
PCBN R/L 2525 M16	❑	●	25	25	25	150	31,7	22	LCL5SD	LCS5B-SD	LSC53SD	LSP5SD	LH030	❷
PCBN R/L 3225 P16	❑	●	32	32	25	170	31,7	22						
PCBN R/L 3232 P19	●	●	32	32	32	170	37,9	27	LCL6SD	LCS6B-SD	LSC63SD	LSP6SD	LH040	❸

PCLN





Inserts



Spare Parts

Holders

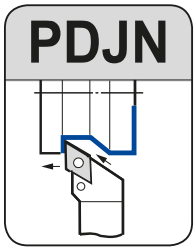
Above figures show right hand tools.

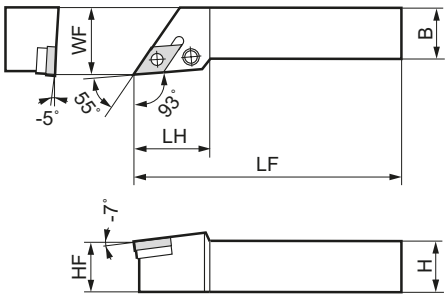
Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PCLN R/L 1616 H09	●	●	16	16	16	100	25,7	20	LCL3SD	LCS3TB-SD	LSC32SD	LSP3SD	LH025	❶
PCLN R/L 2020 K09	●	❑	20	20	20	125	27	25						
PCLN R/L 2525 M09	❑	❑	25	25	25	150	27	32						
PCLN R/L 1616 H12	●	●	16	16	16	100	26,1	20	LCL4SD	LCS 4CA	LSC42SD	LSP4SD	LH030	❷
PCLN R/L 2020 K12	●	❑	20	20	20	125	27,4	25		LCS42BS-SD				
PCLN R/L 2525 M12	●	●	25	25	25	150	28	32						
PCLN R/L 3225 P12	●	●	32	32	25	170	28	32						
PCLN R/L 2525 M16	●	❑	25	25	25	150	32,6	32	LCL5SD	LCS5B-SD	LSC53SD	LSP5SD	LH030	❸
PCLN R/L 3225 P16	●	❑	32	32	25	170	32,6	32						
PCLN R/L 3232 P16	●	●	32	32	32	170	32,6	40						
PCLN R/L 2525 M19	❑	●	25	25	25	150	37	32	LCL6SD	LCS6B-SD	LSC63SD	LSP6SD	LH040	❹
PCLN R/L 3225 P19	❑	❑	32	32	32	170	38	32						
PCLN R/L 3232 P19	❑	❑	32	32	32	170	38	40						
PCLN R/L 4040 S19	❑	❑	40	40	40	250	37,8	50						

● = Euro stock ❑ = Delivery on request

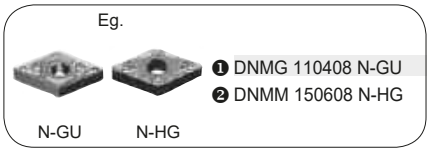
External Tool Holders
P Type (Lever Lock)

General Turning and Facing





Inserts



Spare Parts

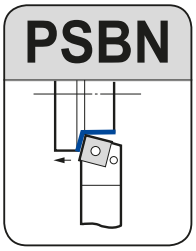
Holders

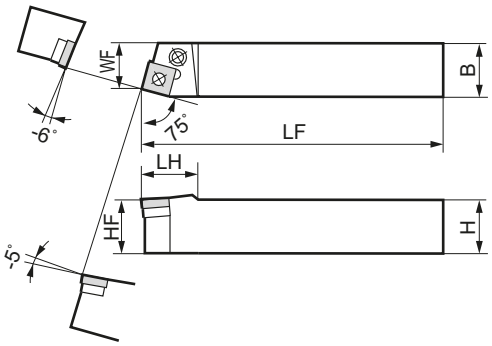
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PDJN R/L 1616 H11	●	●	16	16	16	100	30	20	LCL3D-SD	LCS3TB-SD	LSD32SD	LSP3SD	LH025	❶
PDJN R/L 2020 K11	●	●	20	20	20	125	30	25						
PDLN R/L 2525 M11	●	●	25	25	25	150	30	32						
PDJN R/L 2020 K15	●	●	20	20	20	125	34,7	25	LCL4D-SD	LCS5DB-SD	LSD42SD	LSP4SD	LH030	❷
PDJN R/L 2525 M15	●	●	25	25	25	150	34,7	32						
PDJN R/L 3225 P15	●	●	32	32	25	170	34,7	32						

General Turning and Chamfering

PSBN





Inserts

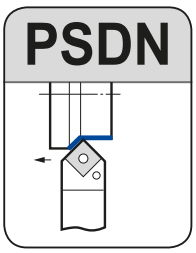
Spare Parts

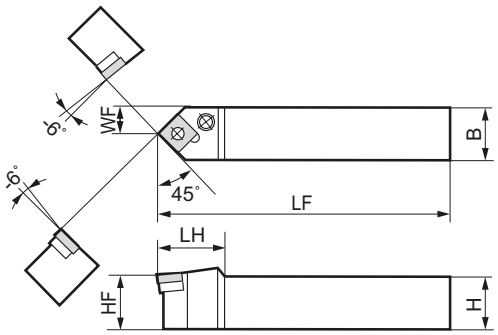
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PSBN R/L 2020 K12	●	●	20	20	20	125	27,5	17	LCL4SD	LCS42BS-SD	LSS42SD	LSP4SD	LH030	❶
PSBN R/L 2525 M12	●	●	25	25	25	150	27,5	22						
PSBN R/L 2525 M15	●	●	25	25	25	150	32	22	LCL5SD	LCS5B-SD	LSS53SD	LSP5SD	LH030	❷
PSBN R/L 3225 P15	●	●	32	32	25	170	32	22						
PSBN R/L 3232 P19	●	●	32	32	32	170	39,2	27	LCL6SD	LCS6B-SD	LSS63SD	LSP6SD	LH040	❸

PSDN





Inserts

Spare Parts

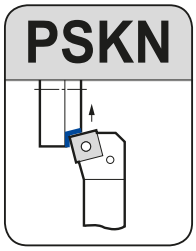
Holders

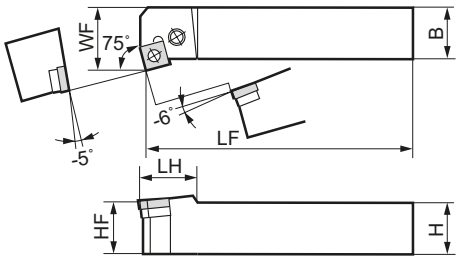
Cat. No.	Stock	Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
		H	HF	B	LF	LH	WF						
PSDN N 1616 H09	●	16	16	16	100	21	8,3	LCL3SD	LCS 3TB-SD	LSS32SD	LSP3SD	LH025	❶
PSDN N 2020 K12	●	20	20	20	125	27,6	10,3	LCL4SD	LCS42BS-SD	LSS42SD	LSP4SD	LH030	❷
PSDN N 2525 M12	●	25	25	25	150	27,6	12,8						
PSDN N 3225 P12	●	32	32	25	170	27,6	12,8						
PSDN N 3225 P19	❑	32	32	25	170	40,6	13	LCL6SD	LCS6B-SD	LSS63SD	LSP6SD	LH040	❸
PSDN N 3232 P19	●	32	32	32	170	40,6	16,5						

● = Euro stock ❑ = Delivery on request

General Turning and Facing

PSKN





Inserts

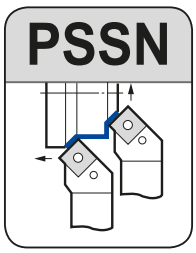
Spare Parts

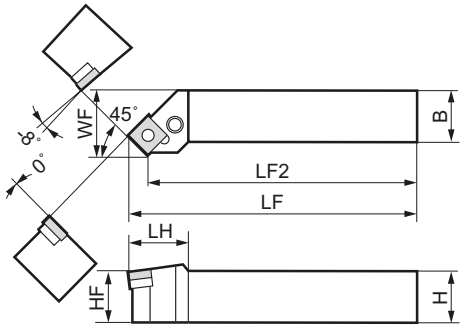
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PSKN R/L 2020 K12	●	❑	20	20	20	125	22,7	17	LCL4SD	LCS42BS-SD	LSS42SD	LSP4SD	LH030	❶
PSKN R/L 2525 M12	●	●	25	25	25	150	22,7	32						
PSKN R/L 2525 M15	❑		25	25	25	150	32	32	LCL5SD	LCS5B-SD	LSS53SD	LSP5SD	LH030	❷
PSKN R/L 3225 P15		●	32	32	25	170	32	32						
PSKN R/L 3232 P19	❑		32	32	32	170	33,7	40	LCL6SD	LCS6B-SD	LSS63SD	LSP6SD	LH040	❸

PSSN





Inserts

Spare Parts

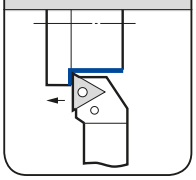
Holders

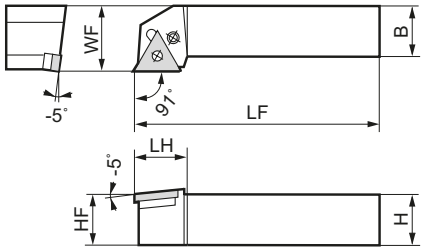
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LF2	LH	WF						
PSSN R/L 2020 K12	●	●	20	20	20	125	116,7	29,3	25	LCL4SD	LCS42BS-SD	LSS42SD	LSP4SD	LH030	❶
PSSN R/L 2525 M12	●	●	25	25	25	150	141,7	29,3	32						
PSSN R/L 3225 P12	●	❑	32	32	25	170	161,7	29,3	32						
PSSN R/L 2525 M15	●	●	25	25	25	150	139,8	32	32	LCL5SD	LCS5B-SD	LSS53SD	LSP5SD	LH030	❷
PSSN R/L 3225 P15	❑		32	32	25	170	159,8	32	32						
PSSN R/L 3232 P15	●	❑	32	32	32	170	159,8	32	40						
PSSN R/L 3232 P19	●	●	32	32	32	170	157,5	40,2	40	LCL6SD	LCS6B-SD	LSS63SD	LSP6SD	LH040	❸

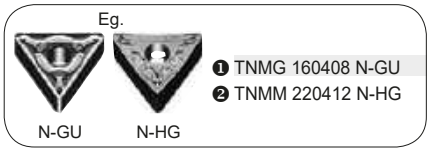
General Turning and Facing

PTGN





Inserts



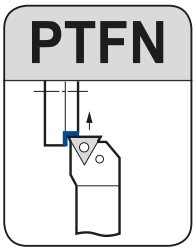
Spare Parts

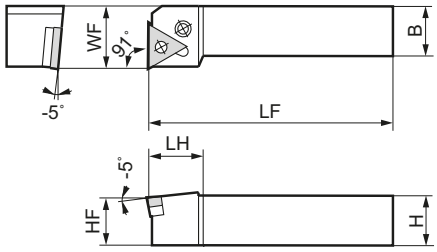
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PTGN R/L 1616 H16	●	●	16	16	16	100	20	20	LCL3SD	LCS3TB-SD	LST317SD	LSP3SD	LH025	❶
PTGN R/L 2020 K16	●	●	20	20	20	125	20	25						
PTGN R/L 2525 M16	●	●	25	25	25	150	22,2	32						
PTGN R/L 2525 M22	●	●	25	25	25	150	28,7	32	LCL4SD	LCS42BS-SD	LST42SD	LSP4SD	LH030	❷
PTGN R/L 3225 P22	●		32	32	25	170	28,7	32						
PTGN R/L 3232 P22	●	●	32	32	32	170	28,7	32						

PTFN





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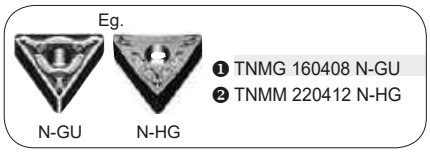
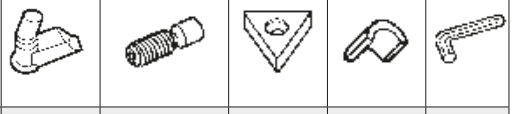


Spare Parts

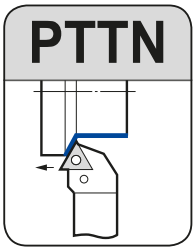


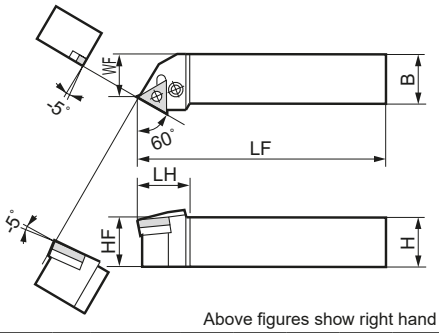
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PTFN R/L 1616 H16	●	●	16	16	16	100	19,7	20	LCL3SD	LCS3TB-SD	LST317SD	LSP3SD	LH025	❶
PTFN R/L 2020 K16	●	●	20	20	20	125	20,2	25						
PTFN R/L 2525 M16	●	●	25	25	25	150	20,2	32						
PTFN R/L 2525 M22	●	❑	25	25	25	150	25,2	32	LCL4SD	LCS42BS-SD	LST42SD	LSP4SD	LH030	❷
PTFN R/L 3225 P22	●	●	32	32	25	170	25,2	32						

PTTN





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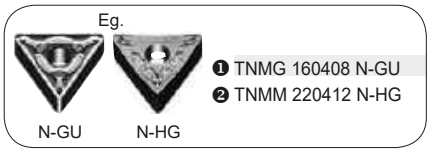
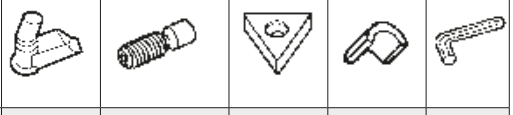


Spare Parts



Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PTTN R/L 2020 K16	❑	❑	20	20	20	125	25,9	17	LCL3SD	LCS3TB-SD	LST317SD	LSP3SD	LH025	❶
PTTN R/L 2525 M16	●		25	25	25	150	25,9	22						
PTTN R/L 3225 P22		●	31	32	25	170	31,9	22	LCL4SD	LCS42BS-SD	LST42SD	LSP4SD	LH030	❷

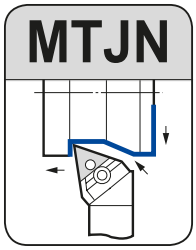
● = Euro stock
○ = Japan stock

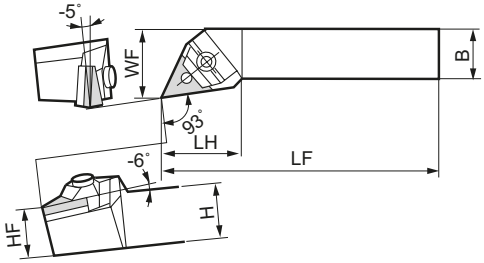
❑ = Delivery on request

Recommended Tightening Torque (N·m)

General Turning and Copying

MTJN





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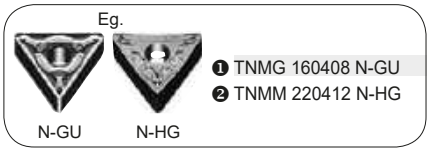


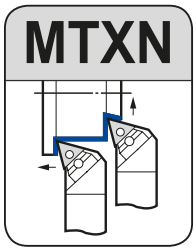
Spare Parts

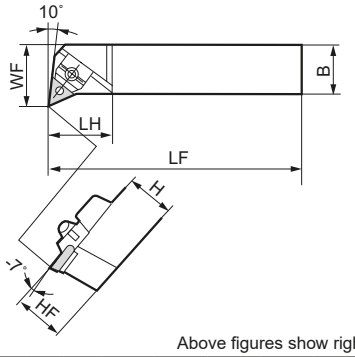
Holders

Above figures show right hand tools.

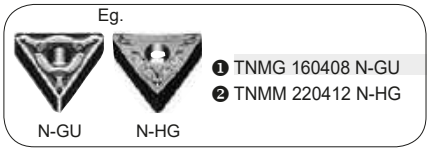
Cat. No.	Stock		Dimensions (mm)						Wedge	Shim pin	Shim	Clamp bold	Nut	Ring	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
MTJN R/L 2020-33 (K16)	●	●	20	20	20	125	37	25	MMW30	MP317 / MP320	STW323	BHA0525 4,0 Nm	CPM32N	ER04	LH030	❶
MTJN R/L 2525-33 (M16)	●	●	25	25	25	150	37	32								
MTJN R/L 2525-43 (M22)	●	●	25	25	25	150	37	32	MMW40	MP420	STW434	BHA0625 4,5 Nm	CPM43N	ER05	LH030 / LH040	❷
MTJN R/L 3225-43 (P22)	❍	❍	32	32	25	170	37	32								

MTXN





Inserts



Spare Parts

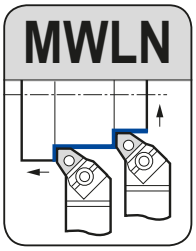
Holders

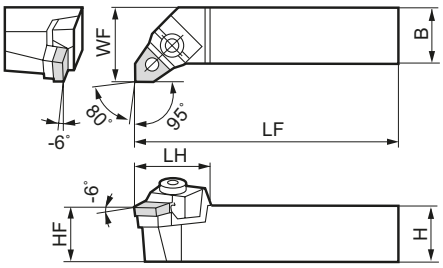
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Wedge	Shim pin	Shim	Clamp bold	Nut	Ring	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
MTXN R/L 2020-33 (K16)	❍	❍	20	20	20	125	32	25	MMW30	MP317 / MP320	STW323	BHA0525 4,0 Nm	CPM32N	ER04	LH030	❶
MTXN R/L 2525-33 (M16)	❍	❍	25	25	25	150	32	32								
MTXN R/L 2525-43 (M22)	❍		25	25	25	150	38	32	MMW40	MP420	STW434	BHA0625 4,5 Nm	CPM43N	ER05	LH030, 040	❷

General Turning and Facing

MWLN





Inserts

Eg.

❶ WNMG 080408 N-GU
❷ WNMM 080412 N-HG

Spare Parts

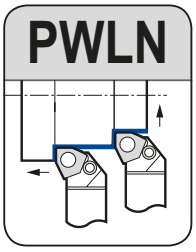
Holders

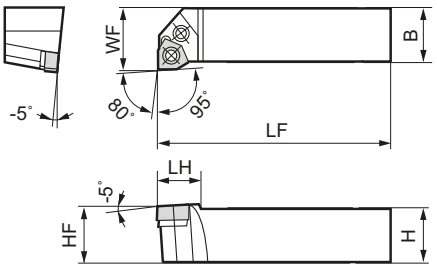
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Wedge	Shim pin	Shim	Clamp bold	Nut	Ring	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF								
MWLN R/L 2020-43 (K08)	❍	❑	20	20	20	125	32	25	MWW40	MP416	SWW433	BHA0625	CPM43S	ER04	LH030 LH040	❶,❷
MWLN R/L 2525-43 (M08)	●	●	25	25	25	150	32	32		MP420		4,5 (N·m)	CPM43N			
MWLN R/L 3225-43 (P08)	❑	❍	32	32	25	170	32	32								

P Type Lever Lock Holders

PWLN





Inserts

Eg.

❶ WNMG 060408 N-SU

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Lever pin	Clamp bolt	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF						
PWLN R/L 2020 K06 (PWLN R/L 2020-33)	●	❑	20	20	20	125	27	25	LCL3SD	LCS3TB-SD	LSW317	LSP3SD	LH025	❶
PWLN R/L 2525 M06	●	❑	25	25	25	150	27	32						

● = Euro stock
○ = Japan stock
❑ = Delivery on request
(N·m) Recommended Tightening Torque (N·m)

C Type Top Clamp Holders

CCLN

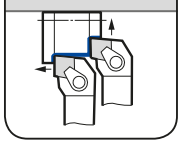


Fig.1

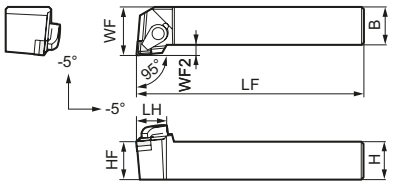
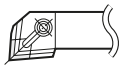


Fig.2



Inserts

❶ CNGN0903 **
❷ CNGN1203 **
❸ CNGN1204 **

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	H	HF	B	LF	LH	WF	WF2	Fig.	Clamp	Insert protector	Clamp bolt	Shim	Shim pin	Wrench		Insert
CCLN R/L 2525 M09	❑		25	25	25	150	25	32	7	1	CCM8UL	CBC0903	WB8-22T	SCN0903	SPP3	LT27		❶
CCLN R/L 2525 M12-03			25	25	25	150	30	32	7	1		CBC4		SCND433				❷
CCLN R/L 2525 M12-04	❑		25	25	25	150	30	32	7	2	CCM8-LONG	CBC4	WB8-30	SCND433	SPP3	LH040		❸

CSBN

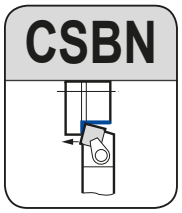


Fig.1

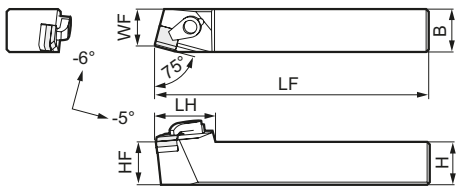
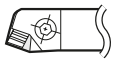


Fig.2



Inserts

❶ SNGN0903 **
❷ SNGN1203 **
❸ SNGN1204 **

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	H	HF	B	LF	LH	WF	WF2	Fig.	Clamp	Insert protector	Clamp bolt	Shim	Shim pin	Spring	Wrench	Insert
CSBN R/L 2525 N09	❑		25	25	25	160	30	21,5	-	1	CCM8UL	CBS13	WB8-22T	SSN0903	-	-	LH040	❶
CSBN R/L 2525 N12-03	❑		25	25	25	160	35	21,5	-	1		CBS14		SSND423				❷
CSBN R/L 2525 N12-04	❑		25	25	25	160	33	21,5	-	2	DC-R/L 1	CBD 4 R/L	BH 0830 R/L	SSND423	SPP3	DSP5	LH040	❸

CSKN

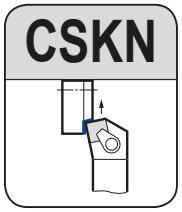


Fig.1

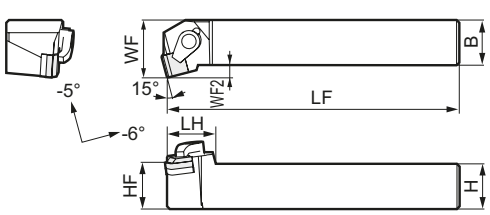
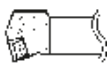


Fig.2



Inserts

❶ SNGN0903 **
❷ SNGN1203 **
❸ SNGN1204 **

Spare Parts

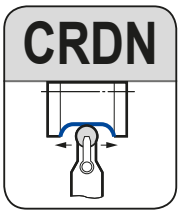
Holders

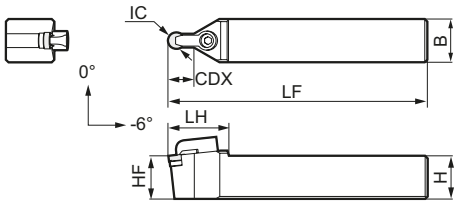
Above figures show right hand tools.

Cat. No.	Stock R	Stock L	H	HF	B	LF	LH	WF	WF2	Fig.	Clamp	Insert protector	Clamp bolt	Shim	Shim pin	Spring	Wrench	Insert
CSKN R/L 2525 N09	❑		25	25	25	160	25	32	7	1	CCM8UL	CBS13	WB8-22T	SSN0903	-	-	LH040	❶
CSKN R/L 2525 N12-03	❑		25	25	25	160	25	32	7	1		CBS14		SSND423				❷
CSKN R/L 2525 N12-04	❑		25	25	25	160	21	32	7	2	DC-R/L 1	CBD 4 R/L	BH 0830 R/L	SSND423	SPP3	DSP5	LH040	❸

C Type Top Clamp Holders

CRDN





Inserts

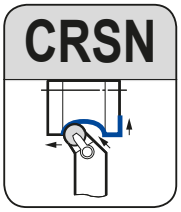
❶ RNGN0903**
❷ RNGN1203**
❸ RNGN1204**

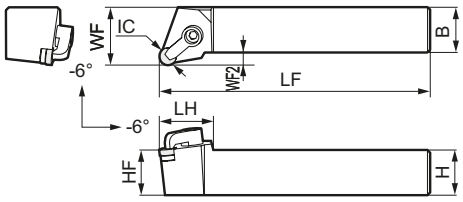
Spare Parts

Holders

Cat. No.	Stock	Dimensions (mm)							Clamp	Double screw	Shim	Shim pin	Wrench	Insert
		H	HF	B	LF	LH	WF	CDX						
CRDNN 2525 M09	●	25	25	25	150	35	-	15	CCM8-LONG	WB8-22T	SRND32	SPP3	LT27	❶
CRDNN 2525 M12-03	●	25	25	25	150	35	-	20			SRND42			❷
CRDNN 2525 M12-04	●	25	25	25	150	35	-	20						❸

CRSN





Inserts

❶ RNGN0903**
❷ RNGN1203**
❸ RNGN1204**

Spare Parts

Holders

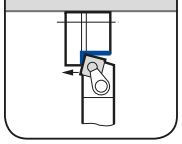
Above figures show right hand tools.

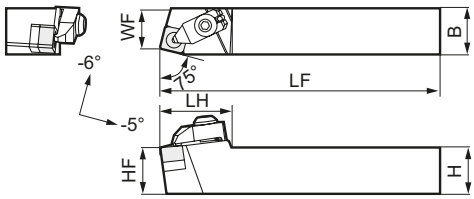
Cat. No.	Stock		Dimensions (mm)							Clamp	Double screw	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF	WF2						
CRSN R/L 2525 M09	●	●	25	25	25	150	30	32	7	CCM8-LONG	WB8-22T	SRND32	SPP3	LT27	❶
CRSN R/L 2525 M12-03	●	●	25	25	25	150	30	32	7			SRND42			❷
CRSN R/L 2525 M12-04	●	●	25	25	25	150	30	32	7						❸

● = Euro stock

X Type Dimple Lock Holders

XSBN





Inserts

❶ SNGX1204**

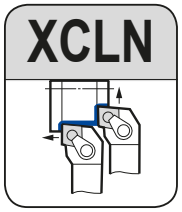
Spare Parts

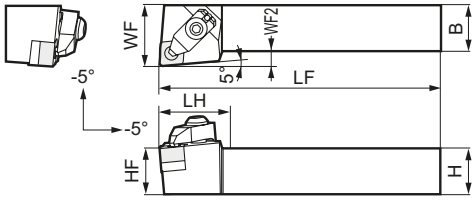
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)						Clamp	Clamp bolt	Shim	Shim pin	Spring	Wrench		Insert
	R	L	H	HF	B	LF	LH	WF								
XSBN R/L 2525 N12	●		25	25	25	160	38	21,5	DSLX8	BH0825	SSND423	SPP3	GSP10	LH050		❶

XCLN





Inserts

❶ CNGX1204**

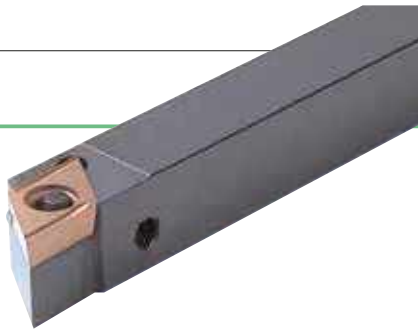
Spare Parts

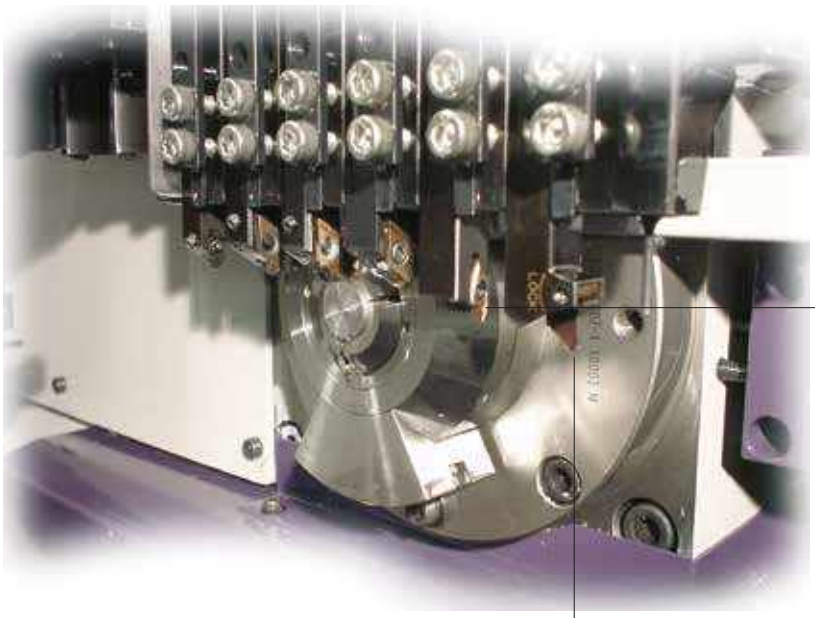
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Clamp	Clamp bolt	Shim	Shim pin	Spring	Wrench		Insert
	R	L	H	HF	B	LF	LH	WF	WF2								
XCLN R/L 2525 N12	●		25	25	25	150	33	32	7	DSLX8	BH0825	SCND433	SPP3	GSP10	LH050		❶

External Mini Holders





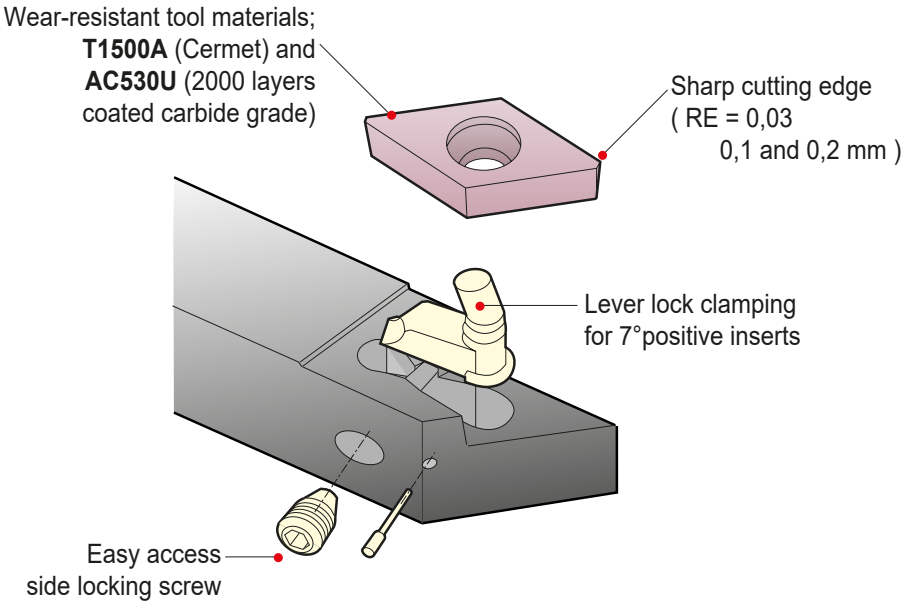
Back-Turning Tool Holder SBT Type

Sharp cutting edges with good surface finish.
Max. reach of insert 8,0 mm, edge width 2,5 mm

Cut-off Tool Holder SCT Type

Easy insert change by just loosening the screw from the back.
Max. cut-off dia. Ø 5 mm, Ø 12 mm, Ø 16 mm

PDJCR type
lever lock holder



External Mini Holders

In 1984, Sumitomo Electric Hardmetal first released the Mini Tool Holder series for the machining of small components in small NC autolathes.
A full range of insert grades comprising of the Cermet T1500A, SUMIBORON BN2000, SUMIDIA DA1000 and especially AC530U, was also introduced to meet a variety of machining requirements.

Grade Selection

Category	Application Range			Work Material					
				P	M	K	S	H	N
	High Precision	Finish-Light Cut	Medium Cut	General Steel	Stainless Steel	Cast Iron	Heat Resistant Alloy	Hardenend Steel	Non-Ferrous Metal
Coated Carbide (PVD)	ACZ150			◎	◎				○
	New AC5015S			○	◎	○	◎		
	New AC5025S			○	◎	○	◎		
	AC530U			◎	◎	○	○		○
	AC1030U			◎	◎	○	○		○
Cermet/Coated Cermet	T1000A			◎	○	◎			○
	T1500A / T1500Z			◎	○	○			○
Carbide	BL130			○	○	○			○
		H1		○	○	○			◎
		EH510		○	○	○	◎		○
CBN (SUMIBORON)		BN1000 / BN2000						◎	
		BN7000				◎	○		
SUMIDIA		DA1000							◎

◎ Preferred Choice ○ Suitable

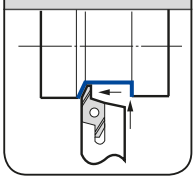
Recommended Cutting Conditions

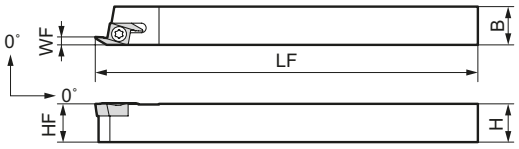
Work Material / Grade	P Free Cutting Steel		P Carbon Steel		M Stainless Steel		S Heat Resistant Alloy		H Hardened Steel		N Aluminium		N Brass	
	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)
ACZ150	50–200	0,02–0,10	50–150	0,01–0,08	50–150	0,01–0,05					70–300	0,05–0,20	70–300	0,05–0,20
AC5015S	50–200	0,02–0,15	50–200	0,02–0,10	*50–200	*0,02–0,10							70–300	0,05–0,20
AC5025S	50–200	0,02–0,15	50–200	0,02–0,10	*50–200	*0,02–0,10	30–100	0,02–0,10					70–300	0,05–0,20
AC530U	50–200	0,02–0,15	50–200	0,02–0,10	*50–200	*0,02–0,10	30–100	0,02–0,10					70–300	0,05–0,20
AC1030U	50–200	0,02–0,15	50–200	0,02–0,10	*50–200	*0,02–0,10							70–300	0,05–0,20
T1000A	50–200	0,02–0,15	50–200	0,02–0,10	*50–150	*0,02–0,10					70–300	0,05–0,20	70–300	0,05–0,20
T1500A	50–200	0,02–0,15	50–200	0,02–0,10	*50–150	*0,02–0,10					70–300	0,05–0,20	70–300	0,05–0,20
T1500Z	50–200	0,02–0,15	50–200	0,02–0,10	*50–150	*0,02–0,10					70–300	0,05–0,20	70–300	0,05–0,20
BN1000									120–300	0,03–0,15				
BN2000									50–200	0,03–0,20				
BN7000							50–200	0,05–0,20						
DA1000											70–300	0,02–0,10	70–300	0,02–0,10

* Please use maximal possible C/speed

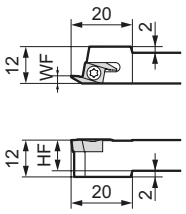
Special Mini Holders for Back Facing

SBT





SBT35 R1010:



Holders

Above figures show right hand tools.

Cat. No.	Stock	Dimensions (mm)							Screw	(N·m)	Wrench		Insert
		H	HF	B	LF	WF							
SBT 35-R 1010	●	10	10	10	120	7,5			BFTX0307N	**2,0**	TRX10		BTR 35_ _
SBT 35-R 1212	●	12	12	12	120	9,5							
SBT 35-R 1616	●	16	16	16	120	13,5							

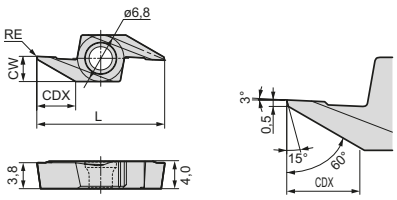
Spare Parts


Inserts

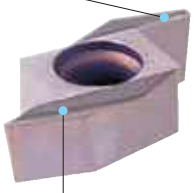
Coated carbide Uncoated Cermet

BTR

Cat. No.	Stock				Dimensions (mm)			
	AC1030U	AC530U	ACZ310	T1500A	L	CDX	CW	RE
BTR 3505	❍		▲	❍	15	3,5	2,5	0,05
BTR 3515	❍	❍	▲	❍	15	3,5	2,5	0,15

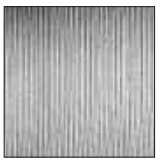
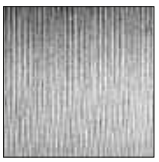


Sharp cutting edge with 15° rake angle



Wide groove breaker for smooth chip evacuation

● Surface roughness comparision

BTR 3505 P10 des Wettbewerbs

Work Material: C45
Insert: BTR3505 (ACZ310)
Cutting Data: v_c = 80 m/min, f = 0,04 mm/rev
a_p = 3,0 mm, Wet

Recommended Cutting Data (SBT type)

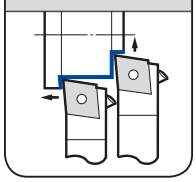
Work Material	Tooling	v_c (m/min)	f (mm/rev)
General steel	Grooving	50–150	0,02–0,05
	Back facing		0,02–0,10
Free-cutting steel	Grooving	50–150	0,02–0,10
	Back facing		0,02–0,15
Stainless steel	Grooving	50–150	0,02–0,04
	Back facing		0,02–0,06

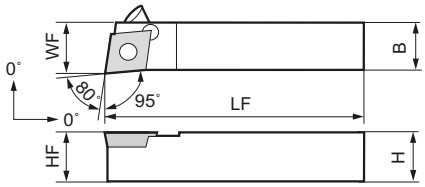
● = Euro stock
○ = Japan stock
❑ = Delivery on request
▲ = To be replaced by new item
(N·m) Recommended Tightening Torque (N·m)

External Mini Tool Holders
PC/SC Type

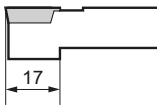
P Type Lever Lock Holders

PCLC



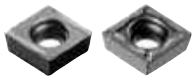


PCLC R/L0810-K06:



Inserts

Eg.



❶ CCGT 060202 R-FX
❷ CCMT 09T304 N-SU

R-FX N-SU

Spare Parts

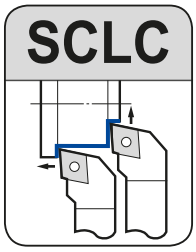
Holders

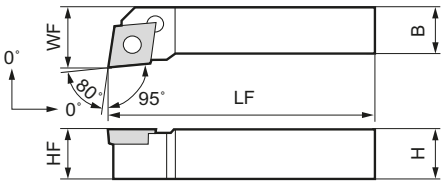
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Lever pin	Clamp screw	Side pin	Wrench	Insert
	R	L	H	HF	B	LF	WF							
PCLC R/L 0810 K06	❑		8	8	10	125	10,5			LCL 06	BTT 0407	LP 07	TH 020	❶
PCLC R/L 1010 K06	●	❑	10	10	10	125	10,5							
PCLC R/L 1212 K09	●	●	12	12	12	150	12,5			LCL 09	BTT 0411	LP 06		❷
PCLC R/L 1616 K09	●		16	16	16	150	16,5							

S Type Screw Lock Holders

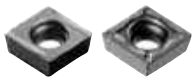
SCLC





Inserts

Eg.



❶ CCGT 060202 R-FX
❷ CCMT 09T304 N-SU
❸ CCMT 120408 N-SU

R-FX N-SU

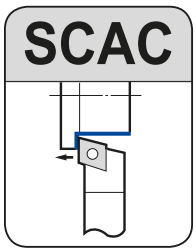
Spare Parts

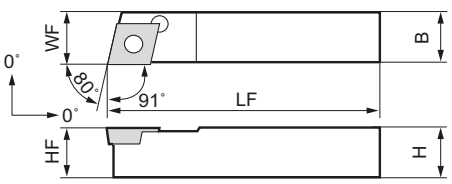
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SCLC R/L 0808 D06	●	●	8	8	8	60	10			BFTX02506N	1,5	TRX08		❶
SCLC R/L 1010 E06	●	●	10	10	10	70	12							
SCLC R/L 1212 F09	●	●	12	12	12	80	16			BFTX0409N	3,4	TRX15		❷
SCLC R/L 1616 H09	❑	●	16	16	16	100	20							
SCLC R/L 2020 H09	●	❑	20	20	20	100	25							
SCLC R/L 2020 K09	●	●	20	20	20	125	25							
SCLC R/L 2020 K12	●	●	20	20	20	125	25			BFTX0511N	5,0	TRX20		❸
SCLC R/L 2525 M12	●	●	20	25	25	150	32							

SCAC





Inserts

Eg.

❶ CCGT 060202 R-FX
❷ CCMT 09T304 N-SU

R-FX N-SU

Spare Parts

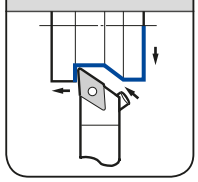
Holders

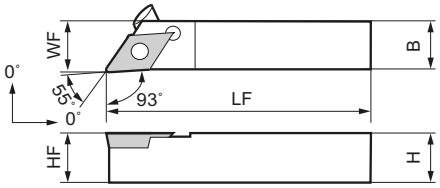
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SCAC R/L 0808 D06	●	❑	8	8	8	60	8,5			BFTX02506N	1,5	TRX08		❶
SCAC R/L 1010 E06	●	❑	10	10	10	70	10,5							
SCAC R/L 1212 F09	●	❑	12	12	12	80	12,5			BFTX0409N	3,4	TRX15		❷

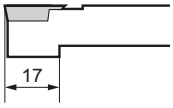
P Type Lever Lock Holders

PDJC





PDJC R/L0810-K07:



Inserts

Eg.

R-FX N-SU

❶ DCGT 070202 R-FX
❷ DCMT 11T304 N-SU

Spare Parts

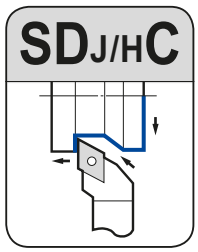
Holders

Above figures show right hand tools.

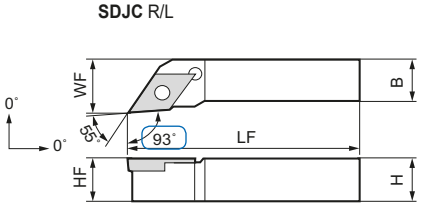
Cat. No.	Stock		Dimensions (mm)							Lever pin	Clamp screw	Side pin	Wrench	Insert
	R	L	H	HF	B	LF	WF							
PDJC R/L 0810 K07	●		8	8	10	125	10,5			LCL 06	BTT 0407	LP 04	TH 020	❶
PDJC R/L 1010 K07	●	●	10	10	10	125	10,5							
PDJC R/L 1212 M11	●	●	12	12	12	150	12,5			LCL 09		LP 07		❷
PDJC R/L 1616 M11	●	❍	16	16	16	150	16,5				BTT 0411			

S Type Screw Lock Holders

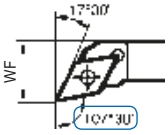
SDJ/HC



SDJC R/L



SDHC R/L



Inserts

Eg.

R-FX N-SU

❶ DCGT 070202 R-FX
❷ DCMT 11T304 N-SU

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SDJC R/L 0808 D07	●	●	8	8	8	60	10			BFTX02506N	1,5	TRX08		❶
SDJC R/L 1010 E07	●		10	10	10	70	12							
SDJC R/L 1212 F07	●	●	12	12	12	80	16							
SDJC R/L 1616 H07	●	●	16	16	16	100	20							
SDJC R/L 2020 K07	●	●	20	20	20	125	25							
SDJC R/L 1212 F11	●	●	12	12	12	80	16			BFTX0409N	3,4	TRX15		❷
SDJC R/L 1616 H11	●	●	16	16	16	100	20							
SDJC R/L 2020 K11	●	●	20	20	20	125	25							
SDJC R/L 2525 M11	●	●	25	25	25	150	32							
SDHC R/L 1616 H11	●	●	16	16	16	100	20			BFTX0409N	3,4	TRX15		❷
SDHC R/L 2020 K11	●	●	20	20	20	125	25							
SDHC R/L 2525 M11	●	●	25	25	25	150	32							

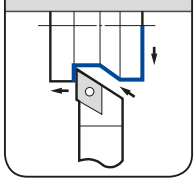
● = Euro stock
○ = Japan stock

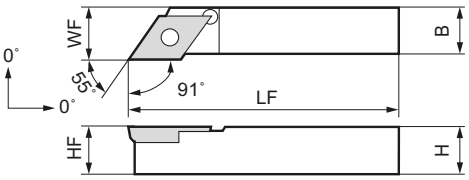
❑ = Delivery on request

N·m Recommended Tightening Torque (N·m)

S Type Screw Lock Holders

SDAC





Inserts

Eg.

R-FX N-SU

❶ DCGT 070202 R-FX
❷ DCMT 11T304 N-SU

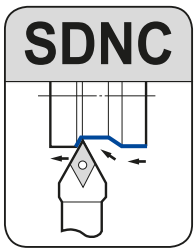
Spare Parts

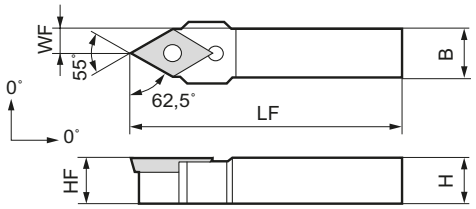
Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SDAC R/L 0808 D07	❑	●	8	8	8	60	8,5			BFTX02506N	1,5	TRX08		❶
SDAC R/L 1010 E07	●	●	10	10	10	70	10,5							
SDAC R/L 1212 F11	●	●	12	12	12	80	12,5			BFTX0409N	3,4	TRX15		❷

SDNC





Inserts

Eg.

R-FX N-SU

❶ DCGT 070202 R-FX
❷ DCMT 11T304 N-SU

Spare Parts

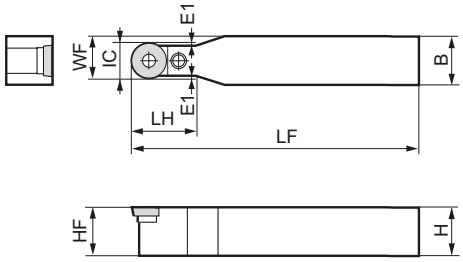
Holders

Cat. No.	Stock	Dimensions (mm)							Screw	N·m	Wrench		Insert
		H	HF	B	LF	WF							
SDNCN 0808 D07	●	8	8	8	60	4,2			BFTX02506N	1,5	TRX08		❶
SDNCN 1010 E07	●	10	10	10	70	5,2							
SDNCN 1212 F07	●	12	12	12	80	6,2							
SDNCN 1616 H07	●	16	16	16	100	8,2							
SDNCN 2020 K07	●	20	20	20	125	10,2							
SDNCN 1212 F11	●	12	12	12	80	6,5			BFTX0409N	3,4	TRX15		❷
SDNCN 1616 H11	●	16	16	16	100	8,5							
SDNCN 2020 K11	●	20	20	20	125	10,5							
SDNCN 2525 M11	●	25	25	25	150	13							

External Holders for 7° RC_ _ pos. Inserts

P Type Lever Lock Holders

PRDCN



■ Inserts

Eg.

N-RP

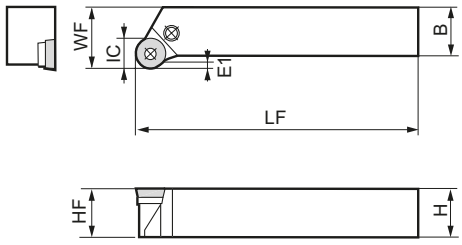
❶ RCOO1003M0 N–RO
❷ RCOO1204M0 N–RO
❸ RCOO1606M0 N–RO
❹ RCOO2006M0 N–RO

■ Spare Parts

■ Holders

Cat. No.	Stock	Dimensions (mm)								Lever pin	Clamp screw	Shim	Shim pin	Wrench	Insert
		H	HF	B	LF	LH	WF	E1	IC						
PRDC N 2020 M10	●	20	20	20	150	22	15,0	1,0	10	LCL10	LCS10	LSR10	LSP10	LH020	❶
PRDC N 2525 M10	●	25	25	25	150	22	17,5	1,0	10						
PRDC N 2525 M12	●	25	25	25	150	24	18,5	1,2	12	LCL12	LCS12	LSR12	LSP10	LH025	❷
PRDC N 3225 Q12	●	32	32	25	180	24	18,5	1,2	12						
PRDC N 3225 Q16	●	32	32	25	180	28	20,5	1,5	16	LCL16	LCS16	LSR16	LSP16	LH025	❸
PRDC N 3232 Q20	●	32	32	32	180	32	26,5	1,7	20	LCL20	LCS20	LSR20	LSP20	LH030	❹

PRGC



■ Inserts

Eg.

N-RP

❶ RCOO 1003M0 N–RO
❷ RCOO 1204M0 N–RO
❸ RCOO 1606M0 N–RO
❹ RCOO 2006M0 N–RO

■ Spare Parts

■ Holders

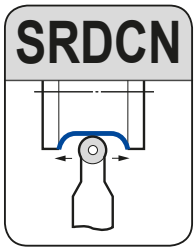
Above figures show right hand tools.

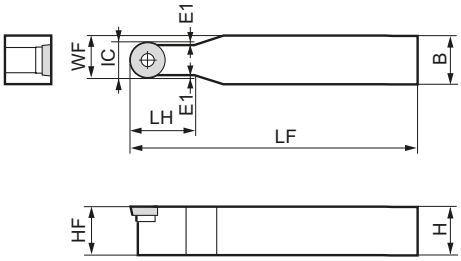
Cat. No.	Stock		Dimensions (mm)							Lever pin	Clamp screw	Shim	Shim pin	Wrench	Insert
	R	L	H	HF	B	LF	WF	E1	IC						
PRGC R/L 2020 K10	●	❍	20	20	20	125	25	1,5	10	LCL10	LCS10	LSR10	LSP10	LH020	❶
PRGC R/L 2525 M10	●	●	25	25	25	150	32	1,5	10						
PRGC R/L 2020 K12	●	❑	20	20	20	125	25	2,5	12	LCL12	LCS12	LSR12	LSP10	LH025	❷
PRGC R/L 2525 M12	❑	●	25	25	25	150	32	2,5	12						
PRGC R/L 3225 P12		❑	32	32	25	170	32	2,5	12						
PRGC R/L 2525 M16	●	❑	25	25	25	150	32	3,0	16	LCL16	LCS16	LSR16	LSP16	LH025	❸
PRGC R/L 3225 P16	●	❑	32	32	25	170	32	3,0	16						
PRGC R/L 3232 P20	●	❑	32	32	32	170	40	4,0	20	LCL20	LCS20	LSR20	LSP20	LH030	❹

● = Euro stock ❑ = Delivery on request Recommended Tightening Torque (N·m)

S Type Screw Lock Holders

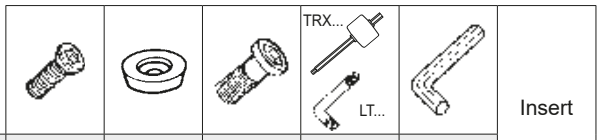
SRDCN





Inserts

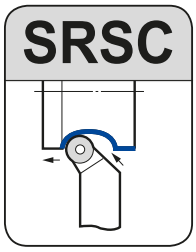
Spare Parts

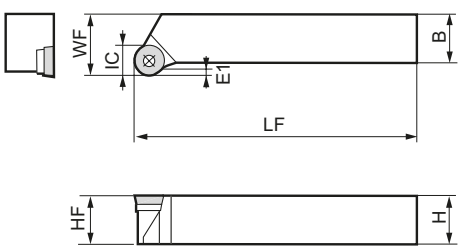


Holders

Cat. No.	Stock	Dimensions (mm)								Screw	Shim	Screw	Wrench	Wrench	Insert
		H	HF	B	LF	LH	WF	E1	IC						
SRDC N 2020 K10T3	●	20	20	20	125	25	15,0	1,0	10	BFTX03510-SD 2,0 Nm	SRNS 103-SD	BW 0508F-SD	TRX 15 IP-35	LH 035	❶
SRDC N 2525 M10T3	●	25	25	25	150	25	17,5	1,0	10						
SRDC N 2525 M12	●	25	25	25	150	28	18,5	1,2	12	BFTX03512-SD 2,0 Nm	SRNS 123-SD				❷
SRDC N 3225 P12	●	32	32	25	170	28	18,5	1,2	12						
SRDC N 2525 M16	❑	25	25	25	150	35	20,5	1,5	16	BFTX0517-SD 5,0 Nm	SRNS 164-SD	BW 0810F-SD	LT 20 IP	LH 050	❸
SRDC N 3225 P16	●	32	32	25	170	35	20,5	1,5	16						
SRDC N 3232 P20	●	32	32	32	170	40	26,0	1,7	20	BFTX0618-SD 7,5 Nm	SRNS 204-SD	BW 0912F-SD	LT 25 IP	LH 060	❹

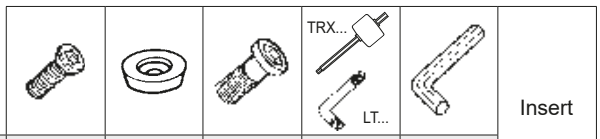
SRSC





Inserts

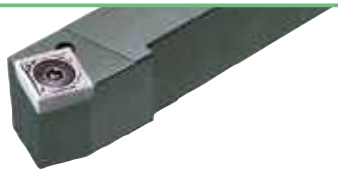
Spare Parts



Holders

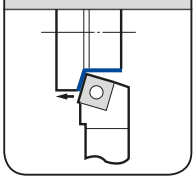
Cat. No.	Stock		Dimensions (mm)							Screw	Shim	Screw	Wrench	Wrench	Insert
	R	L	H	HF	B	LF	WF	E1	IC						
SRSC R/L 2020 K10T3	●	●	20	20	20	125	25	1,5	10	BFTX 03510-SD 2,0 Nm	SRNS 103-SD	BW 0508F-SD	TRX 15 IP-35	LH 035	❶
SRSC R/L 2525 M10T3	●	●	25	25	25	150	32	1,5	10						
SRSC R/L 2525 M12	●	●	25	25	25	150	32	2,5	12	BFTX 03512-SD 2,0 Nm	SRNS 123-SD				❷
SRSC R/L 3225 P12	●	●	32	32	25	170	32	2,5	12						
SRSC R/L 3225 P16	●	●	32	32	25	170	32	3,0	16	BFTX 0517-SD 5,0 Nm	SRNS 164-SD	BW 0810F-SD	LT 20 IP	LH 050	❸
SRSC R/L 3232 P20	●	●	32	32	32	170	40	4,0	20	BFTX 0618-SD 7,5 Nm	SRNS 204-SD	BW 0912F-SD	LT 25 IP	LH 060	❹

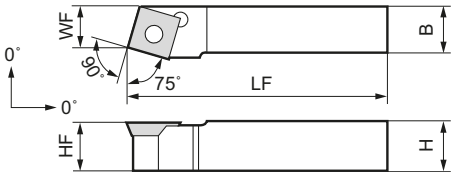
Mini Holders for 7° SC_ _ pos. Inserts



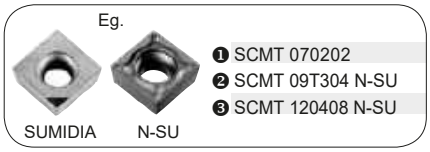
S Type Screw Lock Holders

SSBC





Inserts



Spare Parts

Holders

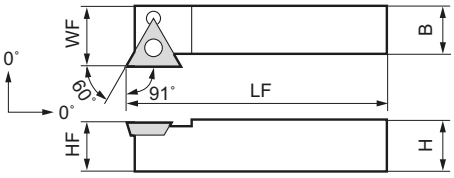
Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SSBC R/L 1010 E07	❑	❑	10	10	10	70	9			BFTX0307N	2,0	TRX10		❶
SSBC R/L 1212 F09	❑	❑	12	12	12	80	11			BFTX0409N	3,4	TRX15		❷
SSBC R/L 1616 H09	❑	❑	16	16	16	100	13							
SSBC R/L 2020 K12	❑	❑	20	20	20	125	17			BFTX0511N	5,0	TRX20		❸
SSBC R/L 2525 M12	▲	▲	25	25	25	150	22							

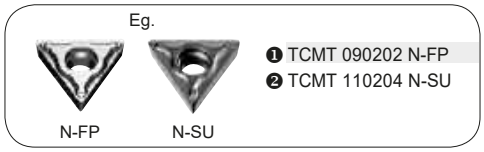
● = Euro stock
❑ = Delivery on request
▲ = To be replaced by new item
N·m Recommended Tightening Torque (N·m)

S Type Screw Lock Holders

STAC



■ Inserts



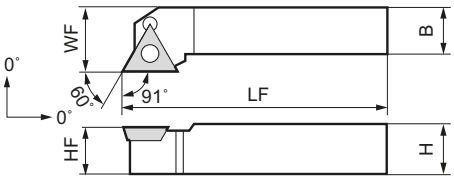
■ Holders

Above figures show right hand tools.

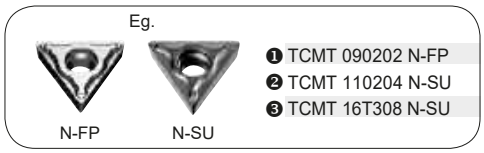
■ Spare Parts

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
STAC R/L 0808 D09	●		8	8	8	60	8,5			BFTX02205N	1,1	TRX06		❶
STAC R/L 1212 F11	●		12	12	12	80	12,5			BFTX02506N	1,5	TRX08		❷

STGC



■ Inserts

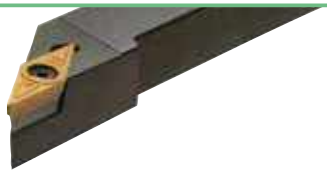


■ Holders

Above figures show right hand tools.

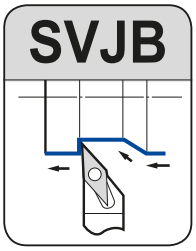
■ Spare Parts

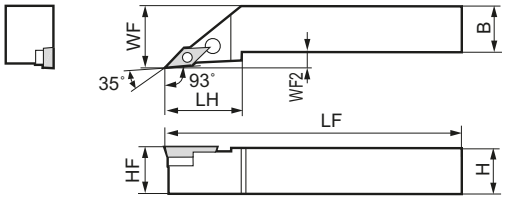
Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
STGC R/L 0808 D09			8	8	8	60	10			BFTX02205N	1,1	TRX06		❶
STGC R/L 1010 E09	●	●	10	10	10	70	12							
STGC R/L 1212 F11	●	●	12	12	12	80	16			BFTX02506N	1,5	TRX08		❷
STGC R/L 1616 H11	●	●	16	16	16	100	20							
STGC R/L 1616 H16	●	●	16	16	16	100	20			BFTX0409N	3,4	TRX15		❸
STGC R/L 2020 K16	●	●	20	20	20	125	25							
STGC R/L 2525 M16	❑	❑	25	25	25	150	32							



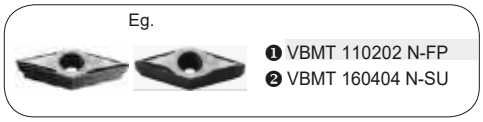
S Type Screw Lock Holders

SVJB





Inserts



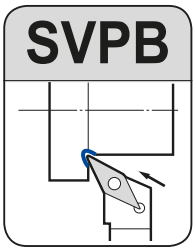
Spare Parts

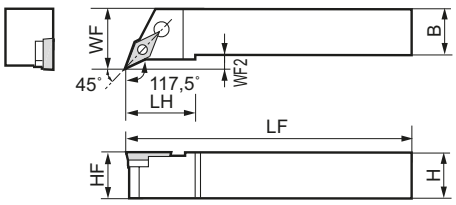
Holders

Above figures show right hand tools.

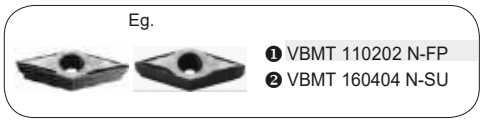
Cat. No.	Stock		Dimensions (mm)							Stopper	Nut	Shim	Wrench	Scew	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF	WF2							
SVJB R/L 1212 F11	●	●	12	12	12	80	25	16	4,5	-	-	-	-	BFTX02508NV 1,5 (N·m)	TRX08	❶
SVJB R/L 1616 H11	●	●	16	16	16	100	25	20	4,5							
SVJB R/L 2020 K16	●	●	20	20	20	125	41	25	5,0	VP20						
SVJB R/L 2525 M16	●	●	25	25	25	150	41	32	7,0	VP25	CPV33N	SVP32	LH025	BFTX03508 2,0 (N·m)	TRX10	❷
SVJB R/L 3225 P16	●	●	32	32	25	170	41	32	7,0	VP32						

SVPB





Inserts



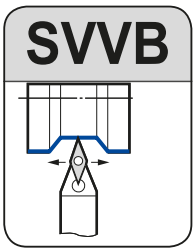
Spare Parts

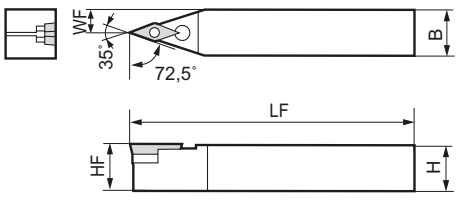
Holders

Above figures show right hand tools.

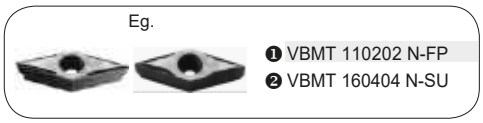
Cat. No.	Stock		Dimensions (mm)							Stopper	Nut	Shim	Wrench	Scew	Wrench	Insert
	R	L	H	HF	B	LF	LH	WF	WF2							
SVPB R/L 1212 F11	●	❑	12	12	12	80	25	16	4,5	-	-	-	-	BFTX02508NV 1,5 (N·m)	TRX08	❶
SVPB R/L 1616 H11	●	●	16	16	16	100	25	20	4,5							
SVPB R/L 2020 K16	●	●	20	20	20	125	36	25	5,0	VP20						
SVPB R/L 2525 M16	●	●	25	25	25	150	36	32	7,0	VP25	CPV33N	SVP32	LH025	BFTX03508 2,0 (N·m)	TRX10	❷
SVPB R/L 3225 P16	●	●	32	32	25	170	36	32	7,0	VP32						

SVVB





Inserts



Spare Parts

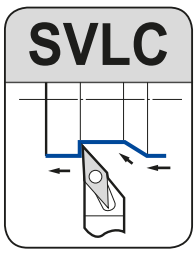
Holders

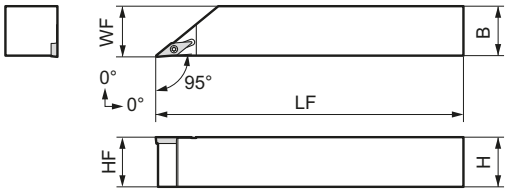
Cat. No.	Stock	Dimensions (mm)						Stopper	Nut	Shim	Wrench	Scew	Wrench	Insert
		H	HF	B	LF	LH	WF							
SVVB M 1212 F11	●	12	12	12	80	-	6	-	-	-	-	BFTX02508NV 1,5 (N·m)	TRX08	❶
SVVB N 1616 H11	●	16	16	16	100	-	8							
SVVB N 2020 K16	●	20	20	20	125	-	10	VP20						
SVVB N 2525 M16	●	25	25	25	150	-	12,5	VP25	CPV33N	SVP32	LH025	BFTX03508 2,0 (N·m)	TRX10	❷
SVVB N 3225 P16	●	32	32	25	170	-	12,5	VP32						

● = Euro stock ❑ = Delivery on request (N·m) Recommended Tightening Torque (N·m)

External Mini Tool Holders
SV Type

S Type Screw Lock Holders





Inserts

Eg.

R-FX

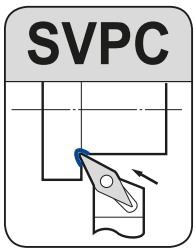
❶ VCGT 110302 R-FX

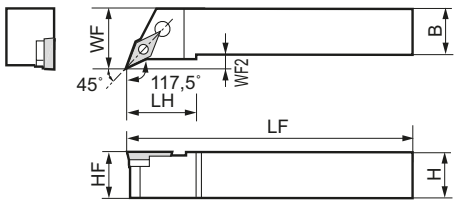
Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)							Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	WF							
SVLC R/L 1010 H11	●	●	10	10	10	100	10,5			BFTX02508NV	1,5	TRX08		❶
SVLC R/L 1212 H11	●	●	12	12	12	100	12,5							
SVLC R/L 1616 H11	●	●	16	16	16	100	16,5							
SVLC R/L 2525 M11	●		20	20	20	150	25,5							





Inserts

Eg.

R-FX

❶ VCGT 110302 R-FX

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)								Screw	N·m	Wrench		Insert
	R	L	H	HF	B	LF	LH	WF	WF2						
SVPC R/L 1010 H11	❑	❑	10	10	10	100	-	14,5	4,5		BFTX02508NV	1,5	TRX08		❶
SVPC R/L 1212 H11	●	●	12	12	12	100	-	16,5	4,5						
SVPC R/L 1616 H11	●	●	16	16	16	100	-	20,5	4,5						

Polygon - Shank Holder

Features

The Sumitomo polygon shank holders enable an extremely high stiffness connection between machine and tool. The conical polygon can take high bending and torque moments based on the combination of the face contact to the spindle.
This self-guiding coupling system offers high precision and a repeatability of ± 2 µm in X, Y and Z axis.
While using this easy and quick coupling system it is possible to gain higher machine utilization time as the set-up and tool change times are reduced.
The compact design and the high stiffness connection to the spindle offer a versatile use e.g. on multi-task machines, machining centers and turning-milling centers.

Characteristics

- original SUMITOMO D-type double clamping system
- compact design
- monoblock system - no additional interfaces
- precise positioning; self-guiding with high repeatability
- high stiffness supported by face contact of holder
- carbide shims to prevent holders from damage
- simple tool holder change and low-maintenance operation
- internal coolant supply directly to the cutting edge
- Polygon shank and insert seat hardened for long holder life

Polygon - shank holder - produced according to ISO 26623-1

Negative Insert Type

Positive Insert Type

Classification System for Polygon - Shank Holder

P S C 4 0 - D C L N R 2 7 0 5 0 - 1 2

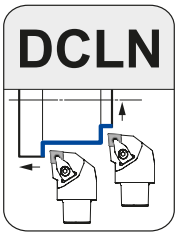
Polygon Shank	Size (DCSFMS)	Clamping System D: Double Clamp S: Screw Clamp		Holder Style		Feed Direction R: Right Hand L: Left Hand N: Neutral	Size (WF)	Holder Length (LF)		Insert Cutting Edge Length
			Insert Shape		Seat Clearance Angle N = 0° C = 7° P = 11°					

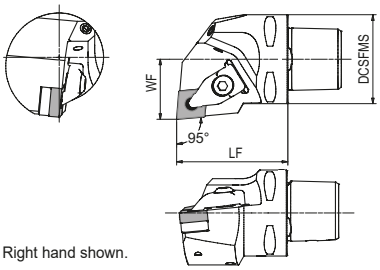
● = Euro stock

Recommended Tightening Torque (N·m)

General Turning, Copying and Facing

DCLN



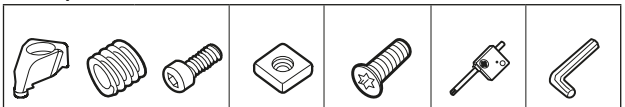


Right hand shown.

■ Inserts

CNMG1204_ _ NGE
(Representative example)

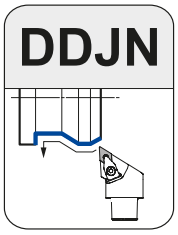
■ Spare Parts

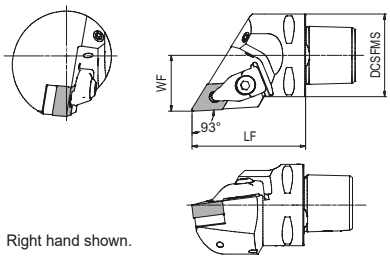


■ Holders

Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	N·m	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DCLN R/L 27050-12	●	●	50	27	40	CN□□ 1204	SCP-2	5,0	CNS1204	BFTX0409N	TRX15 (*)	LH040
PSC50 DCLN R/L 35060-12	●	●	60	35	50							

DDJN



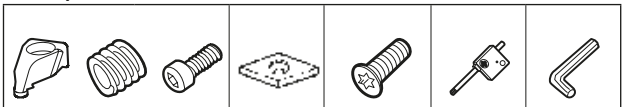


Right hand shown.

■ Inserts

DNMG1506_ _ NGE
(Representative example)

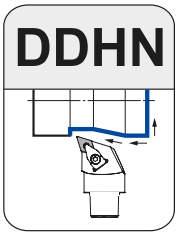
■ Spare Parts

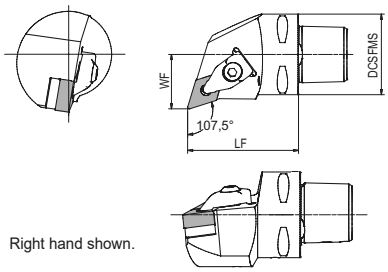


■ Holders

Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	N·m	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DDJN R/L 27055-15	●	●	55	27	40	DN□□ 1506	SCP-2	5,0	DNS1506	BFTX0409N	TRX15 (*)	LH040
PSC50 DDJN R/L 35060-15	●	●	60	35	50							

DDHN



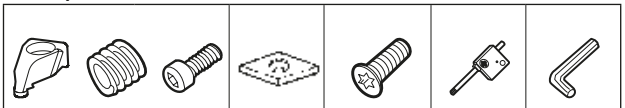


Right hand shown.

■ Inserts

DNMG1506_ _ NGE
(Representative example)

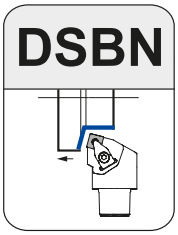
■ Spare Parts

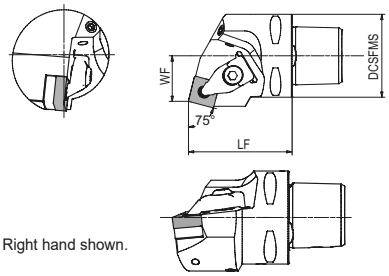


■ Holders

Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	N·m	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DDHN R/L 27055-15	●	●	55	27	40	DN□□ 1506	SCP-2	5,0	DNS1506	BFTX0409N	TRX15 (*)	LH040
PSC50 DDHN R/L 35060-15	●	●	60	35	50							

DSBN



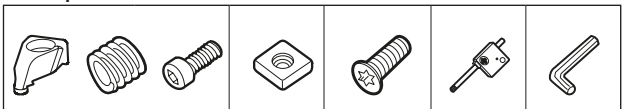


Right hand shown.

■ Inserts

SNMG1204_ _ NGE
(Representative example)

■ Spare Parts



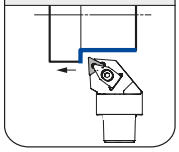
■ Holders

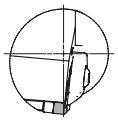
Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	N·m	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DSBN R/L 22050-12	●	●	50	22	40	SN□□ 1204	SCP-2	5,0	SNS1204	BFTX0409N	TRX15 (*)	LH040
PSC50 DSBN R/L 27060-12	●	●	60	27	50							

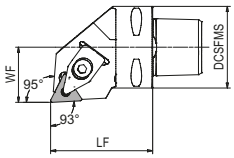
(*) Item is sold separately.

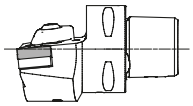
General Turning and Facing

DTJN









Right hand shown.

Inserts

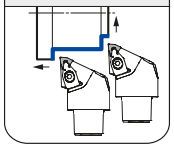
TNMG1604_ _ NGE
(Representative example)

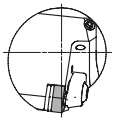
Spare Parts

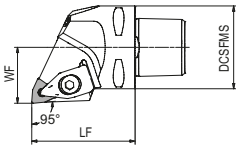
Holders

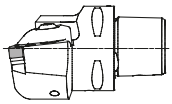
Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	(N·m)	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DTJN R/L 27050-16	●	●	50	27	40	TN□□ 1604	SCP-1	5,0	TNS1604	BFTX0307N	TRX15 (*)	LH040
PSC50 DTJN R/L 35060-16	●	●	60	35	50							

DWLN







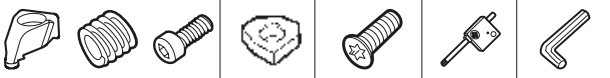


Right hand shown.

Inserts

WNMG0804_ _ NSE
(Representative example)

Spare Parts



Holders

Cat. No.	Stock		Dimensions (mm)			Applicable Insert	Clamp Set	(N·m)	Shim	Shim Screw	Shim Wrench	Wrench
	R	L	LF	WF	DCSFMS							
PSC40 DWLN R/L 27050-06	●	●	50	27	40	WN□□ 06	SCP-1	5,0	WNS0604	BFTX0307N	TRX15 (*)	LH040
PSC50 DWLN R/L 35060-06	●	●	60	35	50							
PSC40 DWLN R/L 27050-08	●	●	50	27	40	WN□□ 08	SCP-2	5,0	WNS0804	BFTX0409N	TRX15 (*)	LH040
PSC50 DWLN R/L 35060-08	●	●	60	35	50							

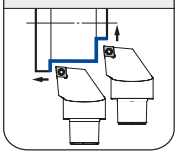
(*) Item is sold separately.

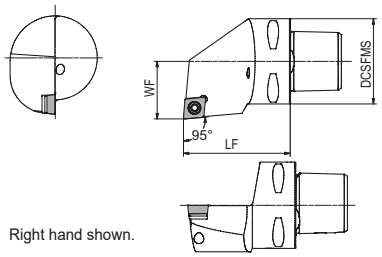
● = Euro stock

(N·m) Recommended Tightening Torque (N·m)

General Turning, Copying and Facing

SCLC





Right hand shown.

■ Inserts

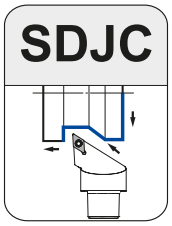
CCMT09T3_ _ NSU
(Representative example)

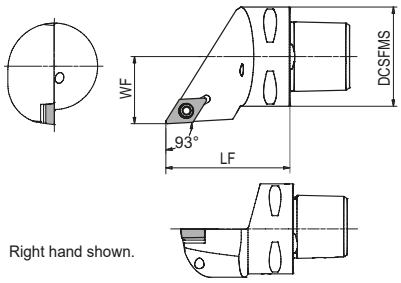
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	L_1	f	DCSFMS							
PSC40 SCLC R/L 27050-09	●	●		50	27	40	CC□□ 09T3	CCS09T3	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SCLC R/L 35060-09	●	●		60	35	50							

SDJC





Right hand shown.

■ Inserts

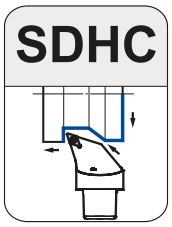
DCMT11T3_ _ NMU
(Representative example)

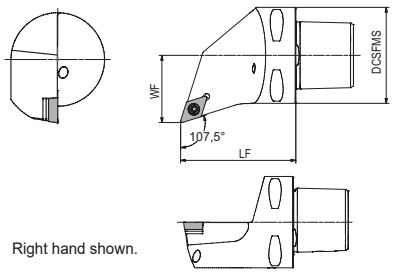
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SDJC R/L 27050-11	●	●		50	27	40	DC□□ 11T3	DCS11T3	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SDJC R/L 35060-11	●	●		60	35	50							

SDHC





Right hand shown.

■ Inserts

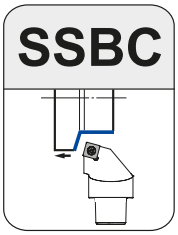
DCMT11T3_ _ NMU
(Representative example)

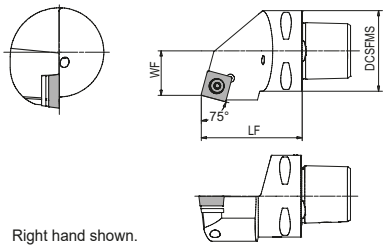
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SDHC R/L 27050-11	●	●		50	27	40	DC□□ 11T3	DCS11T3	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SDHC R/L 35060-11	●	●		60	35	50							

SSBC





Right hand shown.

■ Inserts

SCMT1204_ _ NMU
(Representative example)

■ Spare Parts

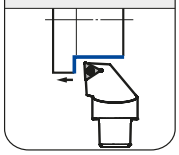
■ Holders

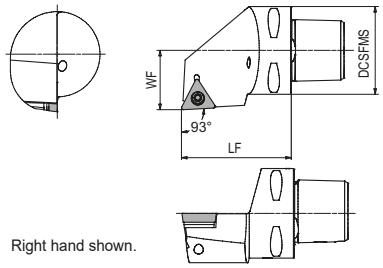
Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SSBC R/L 22050-12	●	●		50	22	40	SC□□ 1204	SCS1204	KGBS1221	KSS1221	4,5	LT15K	LH045K*
PSC50 SSBC R/L 27060-12	●	●		60	27	50							

(*) Item is sold separately.

General Turning, Copying and Facing

STJC





Right hand shown.

■ Inserts

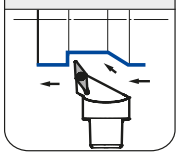
TCMT16T3_ _ NSU (Representative example)

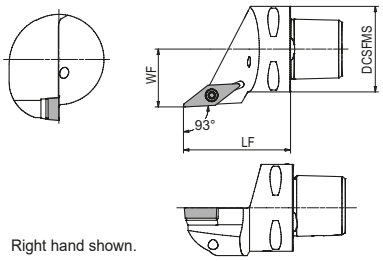
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 STJC R/L 27050-16	●	●		50	27	40	TC□□ 16T3	TCS16T3	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 STJC R/L 35060-16	●	●		60	35	50							

SVJB





Right hand shown.

■ Inserts

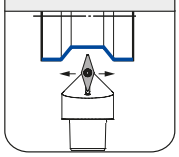
VBMT1604_ _ NSU (Representative example)

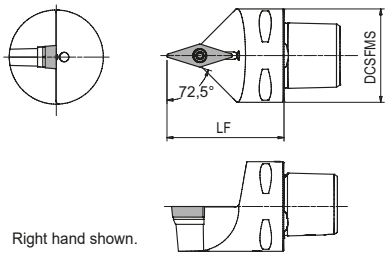
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVJB R/L 27050-16	●	●		50	27	40	VB□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVJB R/L 35060-16	●	●		60	35	50							

SVVB





Right hand shown.

■ Inserts

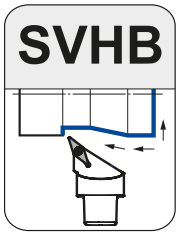
VBMT1604_ _ NSU (Representative example)

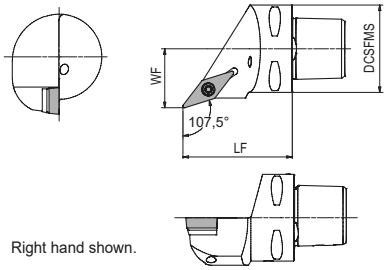
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVVB N 00050-16			●	50		40	VB□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVVB N 00060-16			●	60		50							

SVHB





Right hand shown.

■ Inserts

VBMT1604_ _ NSU (Representative example)

■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVHB R/L 27050-16	●	●		50	27	40	VB□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVHB R/L 35060-16	●	●		60	35	50							

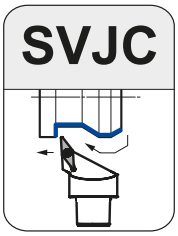
(*) Item is sold separately.

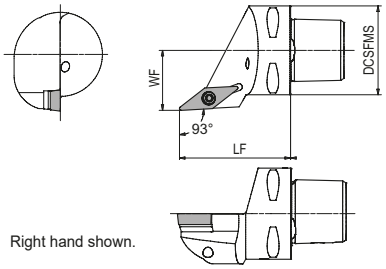
● = Euro stock

N·m Recommended Tightening Torque (N·m)

General Turning, Copying and Facing

SVJC





Right hand shown.

■ Inserts

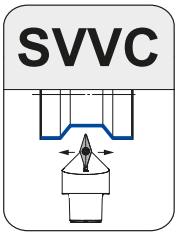
VCMT1604_ _ NSU
(Representative example)

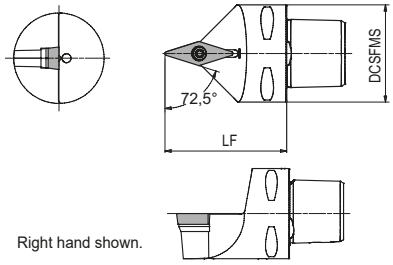
■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVJC R/L 27050-16	●	●		50	27	40	VC□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVJC R/L 35060-16	●	●		60	35	50							

SVVC





Right hand shown.

■ Inserts

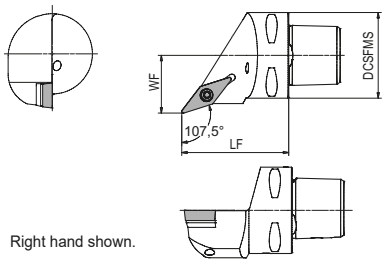
VCMT1604_ _ NSU
(Representative example)

■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVVC N 00050-16			●	50		40	VC□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVVC N 00060-16			●	60		50							

SVHC



Right hand shown.

■ Inserts

VCMT1604_ _ NSU
(Representative example)

■ Spare Parts

■ Holders

Cat. No.	Stock			Dimensions (mm)			Applicable Insert	Shim	Shim Screw	Insert Screw	N·m	Wrench	Shim Wrench
	R	L	N	LF	WF	DCSFMS							
PSC40 SVHC R/L 27050-16	●	●		50	27	40	VC□□ 1604	VCS1604	KGBS1111	KSS1111	3,5	LT15K	LH035K*
PSC50 SVHC R/L 35060-16	●	●		60	35	50							

(*) Item is sold separately.

Boring Bars

E

E1–E24

Boring Tools Selection

According to Applications / Bore Diameter

■ BORING TOOLS

Coloured boxes indicate available size.

Application	Type	Boring Depth (L/D) Shank: Steel	Carbide	X-Bar (Steel)	Applicable Insert	Tooling	Min. Bore Diameter (mm) (Min. cutting diameter is shown when not matched in this table.)
Very Small Dia. Boring	BXBR ⇨ E24		–5		Special boring bar		○ 2 ○ 2,5 ○ 3 ○ 3,5 ○ 4 ○ 4,5 ○ 5
Very Small Dia. Boring	DABB ⇨M45		–2		Sumidia brazed		● 3 ● 4 ● 5 ● 7
Stop Boring	BSME ⇨M36–M38		–4		Sumiboron brazed		● 2,5 ● 3 ● 3,5 ● 4 ● 4,5 ● 5
Stop Boring	SEXC ⇨M36,37,39		–3		Sumiboron insert		● 4 ● 5 ● 6
Stop Boring	BNBB ⇨M40		–5		Sumiboron brazed		● 3,5 ● 4,5 ● 5,5 ● 6,5 ● 8,5
Stop Boring	BNB ⇨M41		–4		Sumiboron insert		● 10 ● 12 ● 14 ● 16 ● 18 ● 20
Stop Boring	S/C-SWUB ⇨ E23	–3	–8		Trigon Type 5° Pos.		● 5,5
Stop Boring	S-STFC ⇨ E19	–3			Triangle Type 5° & 11° Pos.		● 13 ● 16 ● 18 ● 20 ● 22 ● 25 ● 32 ● 35 ● 40 ● 44 ● 50
Stop Boring	B/D-STUP ⇨ E20			–6			● 10 ● 12 ● 14 ● 16 ● 18 ● 20 ● 22 ● 25 ● 40
Stop Boring	S-STUP(B) ⇨ E20	–3					● 8 ● 10 ● 12 ● 16 ● 18 ● 20 ● 22 ● 25
Stop Boring	C-STUP ⇨ E20		–8				● 8 ● 10 ● 12 ● 14 ● 16 ● 18 ● 20 ● 22 ● 25
Stop Boring	CTFP ⇨ Stock in Japan	–3			Triangle 11° Pos.		○ 16 ○ 18 ○ 20 ○ 22 ○ 25 ○ 32
Stop Boring	D-DTFN ⇨ E12	–3		–6	Triangle Neg. Type		● 32 ● 40 ● 50
Stop Boring	S-PTFN ⇨ E12						● 32 ● 40 ● 50
Bottom Facing	BNZ ⇨M33		–5		Sumiboron insert		● 8 ● 9 ● 11 ● 12 ● 16 ● 20 ● 22
Bottom Facing	S-SCLP ⇨ E15	–3			80 ° Diamond 11° Pos. Type		● 12 ● 16 ● 18 ● 20 ● 22 ● 25
Bottom Facing	B-SCLP ⇨ Stock in Japan			–6			○ 14 ○ 16 ○ 18 ○ 20
Bottom Facing	C-SCLP ⇨ E15		–8				● 12 ● 16 ● 18 ● 20
Bottom Facing	B/D-SCLC ⇨ E14			–6	80 ° Diamond 7° Pos. Type		● 10 ● 12 ● 14 ● 16 ● 18 ● 20 ● 22 ● 32 ● 40
Bottom Facing	S-SCLC ⇨ E14	–3					● 13 ● 16 ● 18 ● 20 ● 22 ● 25 ● 32 ● 40 ● 50
Bottom Facing	C-SCLC ⇨ Stock in Japan		–8				○ 5 ○ 6 ○ 7 ○ 8 ○ 10 ○ 12 ○ 13 ○ 14 ○ 16 ○ 20 ○ 22
Bottom Facing	D-DCLN ⇨ E8			–6	80 ° Diamond Neg. Type		● 32 ● 40 ● 50
Bottom Facing	S-PCLN ⇨ E8	–3					● 25 ● 30 ● 32 ● 40 ● 50 ● 63
Bottom Facing	D-DWLN ⇨ E13			–6	Trigon Neg. Type		● 32 ● 40 ● 50
Bottom Facing	S-MWLN ⇨ E13	–3					● 32 ● 40 ● 50

2 2,5 3 3,5 4 4,5 5 6 7 8 10 12 13 14 16 18 20 22 25 28 35 44 54 70

● = Eurostock
○ = Japanstock

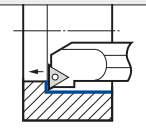
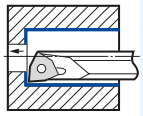
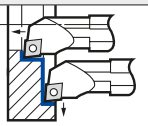
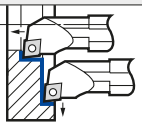
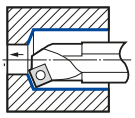
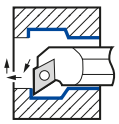
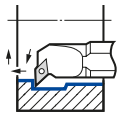
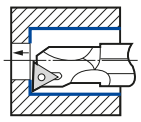
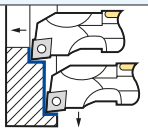
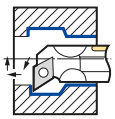
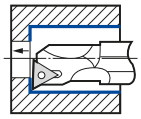
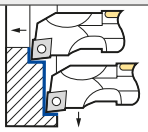
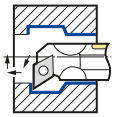
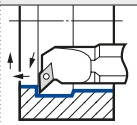
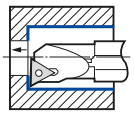
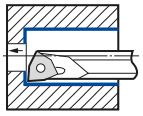
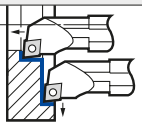
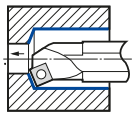
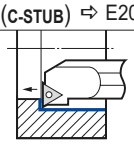
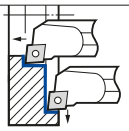
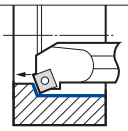
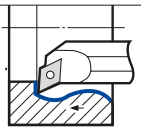
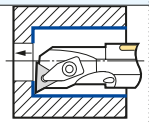
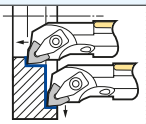
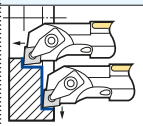
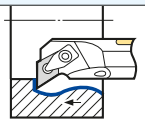
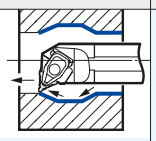
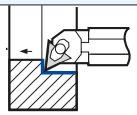
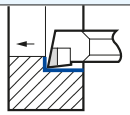
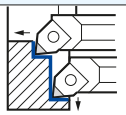
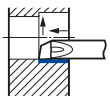
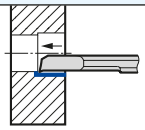
■ BORING TOOLS

Coloured boxes indicate available size.

Application	Type	Boring Depth (L/D) Shank: Steel	Carbide	X-Bar (Steel)	Applicable Insert	Tooling	Min. Bore Diameter (mm) 6	8	10	12	13	14	16	18	20	22	25	28	32	34	35	40	44	50	54	70
Copying	B/D-SDUC ⇨ E16			–6	55 ° Diamond 7° Pos. Type						●		●		●		●		●			●				
	S-SDUC ⇨E16	–3									●		●		●		●		●			●				
	C-SDUC ⇨ Stock in Japan		–8								❍		❍		❍		❍									
	B/D-SDQC ⇨ E17			–6							●		●		●		●		●			●				
	S-SDQC ⇨E17	–3									●		●		●		●		●							
	D-SVUB ⇨ E21			–6	35 ° Diamond Type 5° & 7° Pos.											●		● 27			●	●				
	S-SVUB ⇨ E22	–3														●		● 27			●	●				
	S-SVQB ⇨ E22	–3														●		● 27			●	●				
	B/C-SVQB ⇨ Stock in Japan		–8	–6											❍		❍									
	D-SVZB ⇨ E21			–6												●		● 27			●	●				
	S-SVZB ⇨ E22															●		● 27			●	●				
	D-DDUN ⇨ E9			–6	55 ° Diamond Neg. Type														●			●				
	S-PDUN ⇨ E9	–3																	●			●		●		❍ 63
Through Boring	S-SSKP ⇨ E18	–3			55 ° Diamond Neg. Type								●		●		●	●								
	C-SSKP ⇨ E18		–8										●		●											
	SSKC ⇨ Stock in Japan	–3			Square Type 7° Pos.										❍		❍		❍			❍				
	CSKP ⇨ Stock in Japan	–3			Square Type 11° Pos.										❍		❍									
	S-PSKN ⇨ E10	–3			Square Neg. Type														●			●		●		● 63
Grooving	GNDI ⇨ F11/F28																		●			●		●		
	GNDIS ⇨ F11/F30											❍	❍		❍		❍									
							6	8	10	12	13	14	16	18	20	22	25	28	32	34	35	40	44	50	54	70

Boring Tool Series

■ TOOLING SELECTION

Application		Stop Boring		Bottom Facing		Trough Boring	Copying		
Insert Type / System		Triangle	Poligon / Others	80° Diamond		Square	55° T-REX	55° Diamond	35° Diamond
Screw Lock	Steel	 **S-STFC** ⇨E19 **S-STUP**(B)⇨E20	 **S-SWUB** ⇨ E23	 **S-SCLC** ⇨ E14	 **S-SCLP** ⇨ E15	 **S-SSKP** ⇨ E18	–	 **S-SDUC** ⇨E16 **S-SDQC** ⇨E17	 **S-SVUB** (S-SVQB / S-SVZB) ⇨ E22
	Anti-vibration	 **B-STUP** ⇨ E20	–	 **B-SCLC** ⇨ E14	–		–	 **B-SDUC** ⇨E16 **B-SDQC** ⇨E17	–
	Anti-vibration with Oil Hole	 **D-STUP** ⇨ E20	–	 **D-SCLC** ⇨ E14			–	 **D-SDUC** ⇨E16 **D-SDQC** ⇨E17	 **D-SVUB** ⇨E21 **D-SVZB** ⇨E21
	Carbide	 **C-STUP** (C-STUB) ⇨ E20	 **C-SWUB** ⇨ E23	–	 **C-SCLP** ⇨ E15	 **C-SSKP** ⇨ E18	–	–	–
Lever Lock	Steel	 **S-PTFN** ⇨ E12	–	 **S-PCLN** ⇨ E8	–	 **S-PSKN** ⇨ E10	–	 **S-PDUN** ⇨ E9	–
Top Clamp	Anti-vibration with Oil Hole	 **D-DTFN** ⇨ E12	 **D-DWLN** ⇨E13	 **D-DCLN** ⇨ E8			–	 **D-DDUN** ⇨E9	–
	Steel	–	 **S-MWLN** ⇨ E13	–	–	–	 **S-DTR** ⇨ E11	–	–
CBN	Carbide	 **BNB** ⇨ M41	 **BNBB** ⇨ M40	 **BNZ** ⇨ M41					
		 **BSME** ⇨ M38	 **SEXC** ⇨ M39						
	Carbide					 **BXBR** ⇨ E24			

Boring Bars

■ Catalogue Classification System For Boring Holders

S	16	R	–	S	T	U	P	R	11	03 - 18
①		②		③	④	⑤	⑥	⑦		
Shank Material Chart 1	Shank Diameter (mm)	Shank Length Chart 2		Clamping System Chart 3	Insert Shape Chart 4	Holder Style Chart 5	Seat Clearance Angle Chart 6	Feed Direction Chart 7	Insert Cutting Edge Length (mm)	※ Insert Thickness (mm) / ※ Min. Bore Diameter (mm)

※ This code may only be included in some of the catalogue nos.

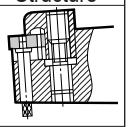
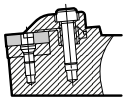
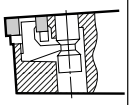
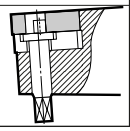
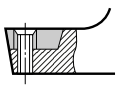
① Chart 1

Shank Material	
S	Steel
B	Steel with Anti-vibration Mechanism without Oil Hole
C	Carbide
D	Steel with Anti-vibration Mechanism with Oil Hole
E	Carbide with Oil Hole

② Chart 2

Shank Length			
Symbol	Length (mm)	Symbol	Length (mm)
F	80	P	170
G	90	Q	180
H	100	R	200
J	110	S	250
K	125	T	300
L	140	U	350
M	150	V	400
N	160	W	450

③ Chart 3

Clamping System					
Symbol	System	Structure	Symbol	System	Structure
C	Top Clamp		M	Top & Hole Clamp Type	
D	Double Clamp		P	Lever Lock Type (Insert is Supported by 1 face)	
E	Pin Lock Type (Insert is supported by 1 face)		S	Screw Clamp Type	

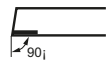
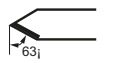
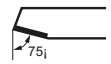
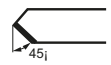
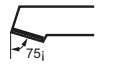
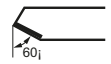
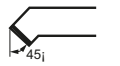
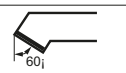
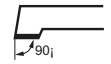
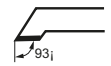
⑦ Chart 7

Feed Direction	
Symbol	Feed Direction
R	Right Hand Feed
L	Left Hand Feed
N	Neutral Feed

④ Chart 4

Insert Shape			
Symbol	Insert Shape	Symbol	Insert Shape
A	Parallellogram 85°	M	Rhombic 86°
B	Parallelogram 82°	O	Octagonal
C	Diamond 80°	P	Pentagonal
D	Diamond 55°	R	Round
E	Diamond 75°	S	Square
F	Diamond 50°	T	Triangular
H	Hexagonal	V	Diamond 35°
K	Parallelogram 55°	W	Trigon
L	Rectangular		

⑤ Chart 5

Holder Style					
Symbol	Shape	Offset	Symbol	Shape	Offset
A		Nil	N		Nil
B		Nil	Q		With Offset
D		Nil	R		With Offset
E		Nil	S		With Offset
F		With Offset	T		With Offset
G		With Offset	U		With Offset
J		With Offset	W		With Offset
K		With Offset	Y		With Offset
L		With Offset	Z		With Offset

⑥ Chart 6

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

Boring Tool Series

General Features

Since being the first in 1976 to introduce indexable boring bars, Sumitomo Electric has been continuously developing a comprehensive range which includes the SEC-Small Hole boring bar series, high rigidity boring head series, with either steel / carbide shanks, and the latest anti-vibration mechanism - SumiTurn X-Bar series coupled with a wide variety of insert grades and chipbreakers, cover a whole range of process requirements.

Features

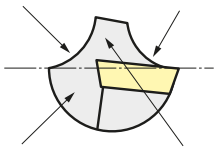
- Wide selection for various boring operations
- Minimum bore diameter from ø 5,5 mm onwards
- New anti-vibration boring bars, SumiTurn X-Bar.
- High rigidity head-design for small boring bars
- Wide selection of grades and chipbreakers available for various processes and work materials

Series SumiTurn X Bar

Good Chip Evacuation from new head design

Evacuates long chips

Evacuates short chips

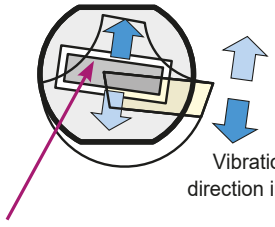


Strong cross section to withstand high cutting force

Ribbed structure for maximum rigidity

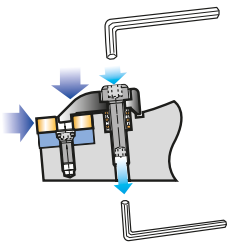
Chatter Killer System - Eliminates Vibration

Unique structure of X-Bar head



The damper resists vibration

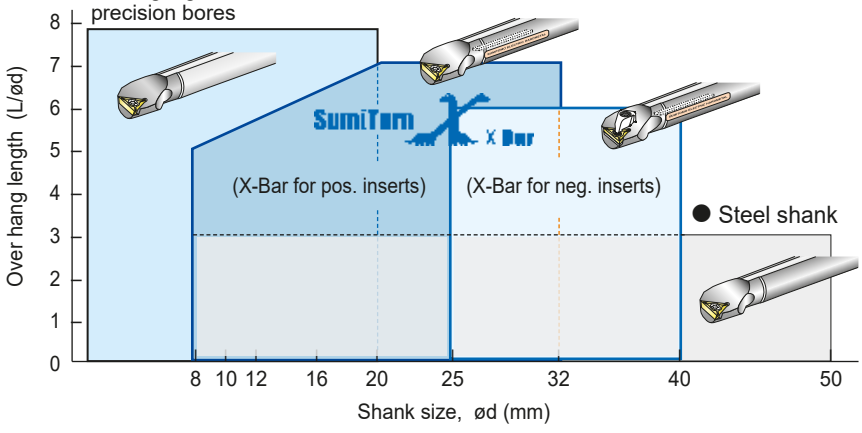
● New negative type "X Bar" with high performance double clamping system



Application Guide

● Carbide shank
Rigid shank for long high precision bores

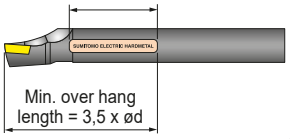
● Anti-Vibration Steel Shank
Low cost solution for long precision bores - eliminates chatter - improves productivity and surface finish



SumiTurn X Bar

⚠ ATTENTION:

Please keep this area free to get the effect of "X Bar" chattering killer system



Boring Tool Series

■ Recommended Over Hang Length / Shank Diameter (L/D)

Type of boring bar	Over hang length (L/D) 1 2 3 4 5 6 7 8 9 10
● Steel Shank Rigid head design for low cost hole boring.	
● Anti-Vibration Type Shank Chatter killer system eliminates vibration - improves productivity - improves quality	(X-Bar for pos. inserts) (X-Bar for neg. inserts) SumiTurn X Bar
● Carbide Shank High rigidity shank for high accuracy hole boring.	

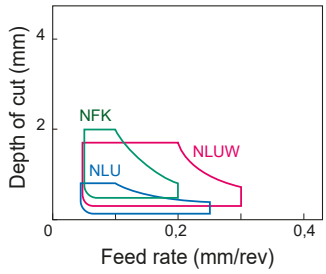
■ Grades

Tool Material		Process: High Precision / Finish~Light Cut / Medium Cut	Work Material: P General Steel	M Stainless Steel	K Cast Iron	S Heat Resistive Alloy	H Hardened Steel	N Non-Ferrous Metal	Powder Metal
Coated Carbide	CVD	New AC8015P	◎						
		AC8025P	◎		○				
		New AC8035P	◎	○					
		AC6020M	○	◎					
		AC6030M	○	◎					
		New AC4010K			◎				
		New AC4015K			◎				
		AC420K			◎				
	PVD	ACZ150	◎	◎					
		New AC5015S	○		○	◎		○	
		New AC5025S	○	○	○	◎			
		AC530U	◎	◎	○	○		○	
		AC1030U	◎	◎	○	○		○	
		AC6040M		◎					
Cermet		T1000A	◎	○	◎			○	○
Coated Cermet		T1500A/T1500Z	◎	○	○			○	
		T3000Z	◎	○	○				
Carbide		G10E			◎			○	
SumiBoron		BN1000					◎		
		BN2000					◎		
		BNC2010					◎		
		BNC2020					◎		
		BN7000			◎	○			○
		BN7500							◎
SumiDia		DA1000						◎	
		DA150						◎	

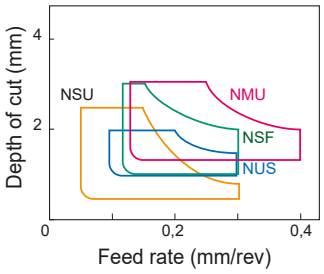
◎ Preferred choice ○ Suitable

■ Recommended Chip Breakers

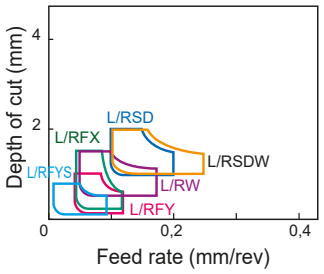
● M-Class Finish-Light-Cut



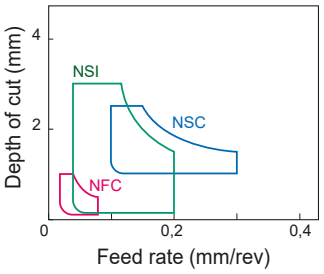
● M-Class Light-Medium-Cut



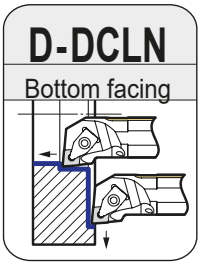
● G-Class Ground Typ



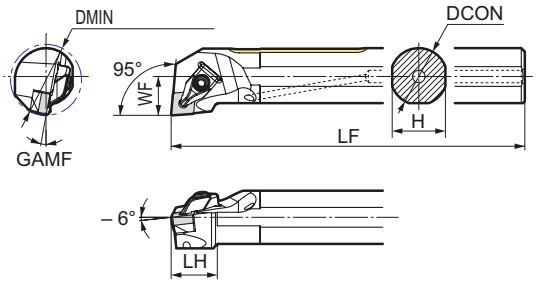
● G-Class Breaker



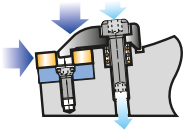
D...DCLN / S...PCLN Type



Anti-vibration D type with oil hole



SumiTurn X Bar



Insert (eg.)

N-GU

■ Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	øD$_{min}$	Dimensions (mm) ød	h	ℓ_1	ℓ_2	f	γ	Insert (eg.)
D25T - DCLN R/L 1204-32	●	●	32	25	23	300	26	17	-12°	CN□□1204○○
D32T - DCLN R/L 1204-40	●	●	40	32	30	300	26	22	-10°	
D40U - DCLN R/L 1204-50	●	●	50	40	37	350	26	27	-10°	

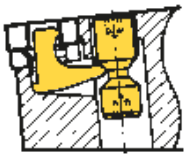
■ Spare Parts

Clamp	Spring	Clamp bolt	Shim	Shim screw	Wrench	Wrench	
SCP-2			CNS1203B	BFTX0307N	TRX10(*)	LH040	LH025
			CNS1204B	BFTX0409N (Nm) 3,4	TRX15(*)		

(*) Note: Wrench (TRX type) for shim screw is not included.

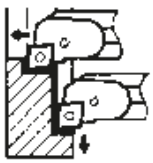
Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

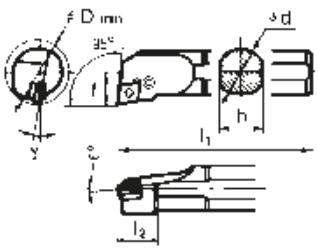
■ Holders



Tool holders (P type) with lever-lock system

S - PCLN R/L





Cat. No.	Stock R	Stock L	øD$_{min}$	d	h	l_1	l_2	f	γ	
S20S - PCLN R/L09	●	●	25	20	18	250	29	13	-11°	CN_ _ 0903_ _
S25T - PCLN R/L09	●	●	30	25	23	300	33	17	-10°	
S25T - PCLN R/L12	●	●	32	25	23	300	42	17	-10°	CN_ _ 1204_ _
S32U - PCLN R/L12	●	●	40	32	30	350	49	22	-11°	
S40V - PCLN R/L12	●	●	50	40	37	400	56	27	-10°	
S32U - PCLN R/L16	●		40	32	30	350	56	22	-11°	CN_ _ 1606_ _
S40V - PCLN R/L16	●	●	50	40	37	400	56	27	-10°	
S50W - PCLN R/L16	❑	❑	63	50	47	450	56	35	-11°	
S50W - PCLN R/L19	❑	❑	63	50	47	450	63	35	-11°	CN_ _ 1906_ _

All figures show right hand tools.

■ Applicable Inserts

Holder	Carbides, Cermets: Double sided	Carbides, Cermets: One sided	CBN, PCD
S - PCLN R/L			
S.....09	CNMG 0903_ _ NGU	-	-
S25T.....12	CNMG 1204_ _ NGU	CNMM 1204_ _ NMP	CNGA 1204_ _
S32U.....12	CNMG 1204_ _ NGU	CNMM 1204_ _ NMP	CNGA 1204_ _
S40V.....12	CNMG 1204_ _ NGU	CNMM 1204_ _ NMP	CNGA 1204_ _
S.....16	CNMG 1606_ _ NGU	CNMM 1606_ _ NMP	-
S.....19	CNMG 1906_ _ NGU	CNMM 1906_ _ NMP	-

■ Spare Parts

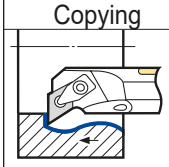
Holder	Lever pin	Clamp bolt	Shim	Shim pin	Wrench	
S - PCLN R/L						
S.....09	LCL3C-SD	LCS3B-SD	-	-	LH020	
S25T.....12	LCL4C-SD	LCS4B-SD	-	-	LH025	
S32U.....12	LCL4T-SD	LCS41BS-SD	LSC42SD	LSP4SD	LH030	
S40V.....12	LCL4SD	LCS42BS-SD	LSC42SD	LSP4SD	LH030	
S.....16	LCL5SD	LCS5B-SD	LSC53SD	LSP5SD	LH030	
S.....19	LCL5C-SD	LCS6B-SD	LSC63SD	LSP6SD	LH040	

● = Euro stock
❑ = Delivery on request

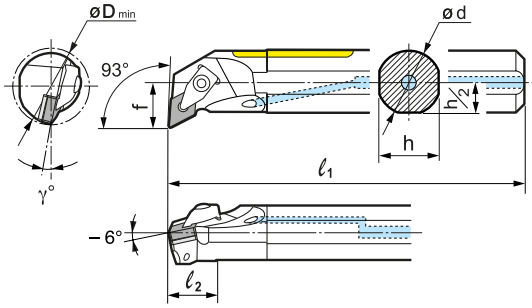
(Nm) Recommended Tightening Torque (N·m)

Boring Bars
D...DDUN / S...PDUN Type

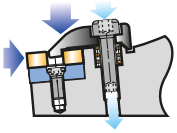
D-DDUN
Copying



Anti-vibration D type
with oil hole



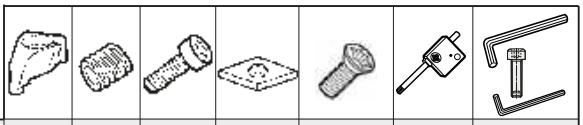
SumiTurn X Bar



Insert (eg.)

N-GU

■ Spare Parts



■ Holders

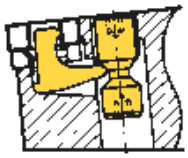
Above figures show right hand tools.

Cat. No..	Stock R	Stock L	øD min	Dimensions (mm) ød	h	ℓ1	ℓ2	f	γ	Insert (eg.)	Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	
D32T - DDUN R/L 1104-40	●	●	40	32	30	300	26	22	-10°	DN□□1104○○	SCP-1			DNS1104B	BFTX0307N	TRX10 (*)	LH040	LH025
D32T - DDUN R/L 1506-40	●	●	40	32	30	300	26	22	-12°	DN□□1506○○	SCP-2			DNS1506B	BFTX0409N (Nm) 3,4	TRX15 (*)		
D40U - DDUN R/L 1506-50	●	●	50	40	37	350	26	27	-12°									

(*) Note: Wrench (TRX type) for shim screw is not included.

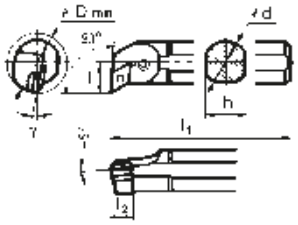
Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

■ Holders



Tool holders (P type)
with lever-lock system

S - PDUN R/L



Cat. No.	Stock R	Stock L	Dimensions (mm) øD min	d	h	l1	l2	f	γ	
S25T - PDUN R/L 11	●	●	32	25	23	300	35	17	-11°	DN_ _ 1104_ _
S32U - PDUN R/L 15 04	●	●	40	32	30	350	40	22	-11°	DN_ _ 1504_ _
S40V - PDUN R/L 15	●	●	50	40	37	400	56	27	-11°	DN_ _ 1506_ _
S50W - PDUN R/L 15	❑	❑	63	50	47	450	63	35	-10°	

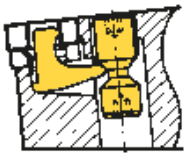
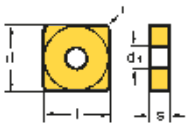
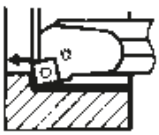
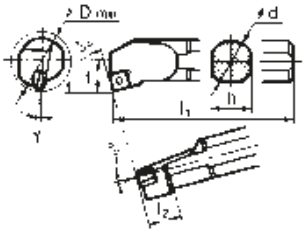
All figures show right hand tools.

■ Applicable Inserts

■ Spare Parts

Holder	Carbides, Cermets: Double sided	Carbides, Cermets: One sided	CBN, PCD	Lever pin	Clamp bolt	Shim	Shim pin	Wrench	
S - PDUN R/L									
S25T 11	DNMG 1104_ _ NGU	-	DNGA 1104_ _	LCL3DB-SD	LCS3DB-SD	–	–	LH020	
S32U 15 04	DNMG 1504_ _ NGU	DNMM 1504_ _ NMP	DNGA 1504_ _	LCL4D-SD	LCS5DB-SD	LSD42SD	LSP4SD	LH030	
S40V 15	DNMG 1506_ _ NGU	DNMM 1506_ _ NMP	DNGA 1506_ _	LCL4D-SD	LCS5DB-SD	LSD42SD	LSP4SD	LH030	
S50W....15	DNMG 1506_ _ NGU	DNMM 1506_ _ NMP	DNGA 1506_ _	LCL4D-SD	LCS5DB-SD	LSD42SD	LSP4SD	LH030	

Holders

	Tool holders (P type) with lever-lock system	Cat. No.	Stock		Dimensions (mm)							
			R	L	$øD_{min}$	d	h	l_1	l_2	f	γ	
S - PSKN R/L 		S25T - PSKN R/L 12	●	●	32	25	23	300	42	17	-11°	SN_ _ 1204_ _
		S32U - PSKN R/L 12	●	●	40	32	30	350	45	22	-10°	
		S40V - PSKN R/L 12	●	●	50	40	37	400	50	27	-10°	
		S40V - PSKN R/L 15	●		63	40	47	400	60	35	-10°	SN_ _ 1506_ _
		S50W - PSKN R/L 15	❑	❑	63	50	47	450	60	35	-10°	
		S50W - PSKN R/L 19	❑	❑	63	50	47	450	60	35	-9°	SN_ _ 1906_ _

All figures show right hand tools.

Applicable Inserts

Holder	Carbides, Cermets		CBN
	Double sided	One sided	
S - PSKN R/L 			
S25T....12	SNMG 0903_ _ NGU	-	-
S32U....12	SNMG 1204_ _ NGU	SNMM 1204_ _ NMP	SNGA 1204_ _
S40V....12	SNMG 1204_ _ NGU	SNMM 1204_ _ NMP	SNGA 1204_ _
S....15	SNMG 1506_ _ NGU	SNMM 1506_ _ NMP	-
S....19	SNMG 1906_ _ NGU	SNMM 1906_ _ NMP	-

Spare Parts

Lever pin	Clamp bolt	Shim	Shim pin	Wrench	
					
LCL4C-SD	LCS4B-SD	–	–	LH025	
LCL4T-SD	LCS41BS-SD	LSS42SD	LSP4SD	LH030	
LCL4SD	LCS42BS-SD	LSS42SD	LSP4SD	LH030	
LCL5SD	LCS5B-SD	LSS53SD	LSP5SD	LH030	
LCL5C-SD	LCS6B-SD	LSS63SD	LSP6SD	LH040	

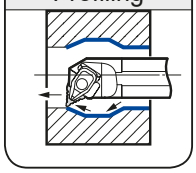
● = Euro stock
❍ = Japan stock
❑ = Delivery on request
▲ = To be replaced by new item
Recommended Tightening Torque (N·m)

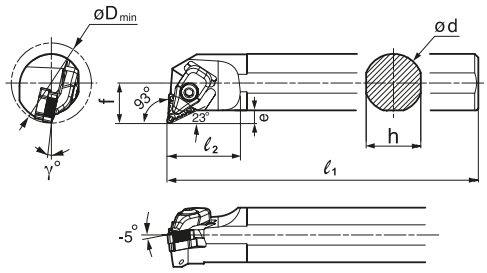
Boring Bars
"T-REX" Type

Internal Turning & Copying

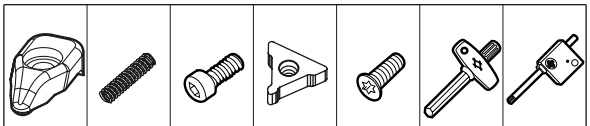
SumiTurn T-REX

S-DTR
Profiling





Spare Parts



Holders

Above figures show right hand tools.

Cat. No.	Stock		Dimensions (mm)								Clamp	Spring	Screw	Shim	Screw	Wrench	Wrench
	R	L	øDmin	ød	h	ℓ1	ℓ2	f	γ	e							
S32S-DTR55C R/L-17	●	❍	44	32	30	250	40	22	-12°	7	TRCP3	S-SP4-20	BX0520	TRW5505	BFTX0307N (Nm) 2,0	TSW040	TRX10(*)
S40T-DTR55C R/L-17	●	❍	50	40	37	300	40	25	-10°	6,2							

(*) Note: Wrench (TRX10) for shim is not included.

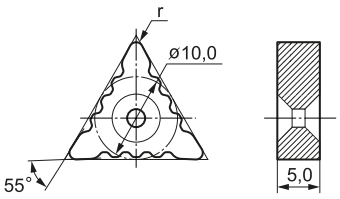
Advantages

● T-REX Inserts for Maximum Economy

With 6 cutting edges and a 55 degree included angle - T-Rex is the intelligent alternative to profile turning with a traditional 4 edge DNMG insert.

Inserts

Applic.	Shape	Cat. No.	r	Coated Carbide AC8015P	AC8025P	AC810P	AC820P	AC830P	AC630M	Coated Cermet T3000Z
Fine Finishing	FL	TRM 551704-FL	0,4				❍			❍
		551708-FL	0,8				❍			❍
Finishing	LU	TRM 551704-LU	0,4	●	❍	▲	▲	▲		❍
		551708-LU	0,8	●	❍	▲	▲	▲		❍
		551712-LU	1,2	❍	❍	▲	▲			❍
	SU	TRM 551704-SU	0,4		❍		▲		❍	❍
		551708-SU	0,8		❍	▲	▲		❍	❍
		551712-SU	1,2		❍		▲		❍	
Light Cut	GU	TRM 551704-GU	0,4	❍	❍	▲	▲	▲	❍	
		551708-GU	0,8	❍	❍	▲	▲	▲	❍	
		551712-GU	1,2	❍	❍	▲	▲	▲		



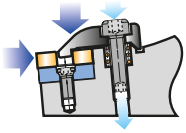
Application P Steel
M Stainless steel

● Recommended Cutting Conditions

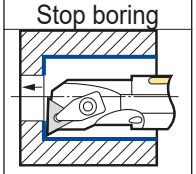
Cutting speed (m/min)

Grade		Coated Carbide AC810P	AC8025P	AC820P	AC830P	AC630M	Coated Cermet T3000Z
Work materials	Low carbon steel	220 400	150 350	150 350	120 300	120 300	100 400
	Alloy steel	150 300	100 250	100 250	80 200	80 230	100 250
	Stainless steel				50 150	100 160	
Application range	Finishing	◎	○	○	○	○	◎
	Medium cutting	○	◎	◎	○	◎	○
	Interrupted cutting		○	○	◎	○	○

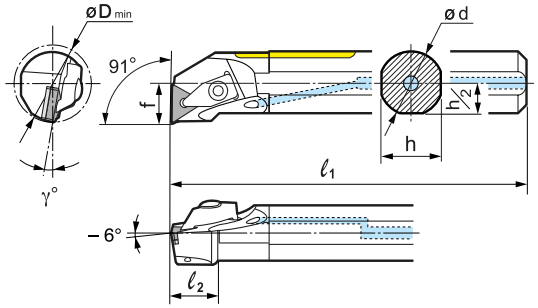
◎ Preferred choice ○ Suitable



D-DTFN
Stop boring



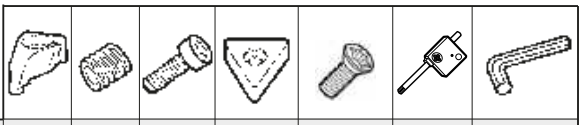
Anti-vibration D type with oil hole



Insert (eg.)

N-GU

Spare Parts



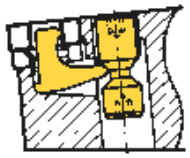
Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	øD min	Dimensions (mm) ød	h	ℓ_1	ℓ_2	f	γ	Insert (eg.)	Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	
D25T - DTFN R/L 1604-32	●	●	32	25	23	300	21	17	-12°	TN□□1604○○	SCP-1			TNS1603B	BFTX0307N (Nm) 2,0	TRX10 (*)	LH040	LH025
D32T - DTFN R/L 1604-40	●	●	40	32	30	300	26	22	-10°					TNS1604B				
D40U - DTFN R/L 1604-50	●	●	50	40	37	350	26	27	-10°									

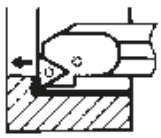
(*) Note: Wrench (TRX type) for shim screw is not included.

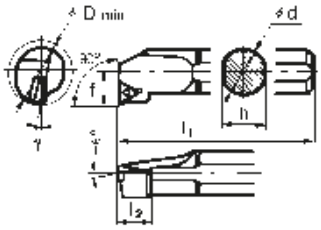
Holders



Tool holders (P type) with lever-lock system

S - PTFN R/L





Cat. No.	Stock R	Stock L	Dimensions (mm) øD min	d	h	l_1	l_2	f	γ	
S20S - PTFN R/L 11			25	20	18	250	30	13	-12°	TN_ _ 1103_ _
S25T - PTFN R/L 16	●	●	32	25	23	300	43,3	17	-13°	TN_ _ 1604_ _
S32U - PTFN R/L 16	●	●	40	32	30	350	49,6	27	-12°	
S40V - PTFN R/L 16	●		50	40	37	400	49,5	27	-11°	
S50W - PTFN R/L 16	❑	❑	63	50	47	450	56	35	-10°	
S40V - PTFN R/L 22	●	●	50	40	37	400	59	27	-11°	TN_ _ 2204_ _
S50W - PTFN R/L 22	❑		63	50	47	450	66	35	-10°	

All figures show right hand tools.

Applicable Inserts

Holder	Carbides, Cermets Double sided	Carbides, Cermets One sided	CBN
S - PTFN R/L			
S....11	-	-	-
S....16	TNMG 1604_ _ NGU	TNMM 1604_ _ NMP	TNGA 1604_ _
S....22	TNMG 2204_ _ NGU	TNMM 2204_ _ NMP	TNGA 2204_ _

Spare Parts

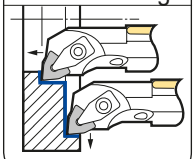
Holder	Lever pin	Clamp bolt	Shim	Shim pin	Wrench
S - PTFN R/L					
S....11	LCL3T-SD	LCS3B-SD	–	–	LH020
S....16	LCL3SD	LCS3TB-SD	LST317SD	LSP3SD	LH025
S....22	LCL4SD	LCS42BS-SD	LST42SD	LSP4SD	LH030

● = Euro stock
❑ = Delivery on request

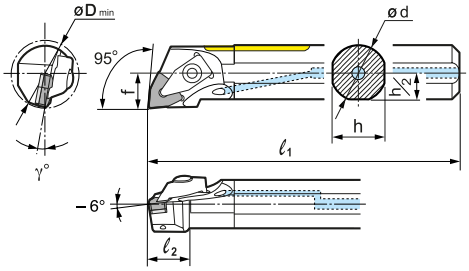
(Nm) Recommended Tightening Torque (N·m)

Boring Bars
D...DWLN / S...MWLN Type

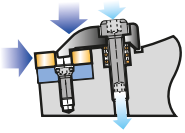
D-DWLN
Bottom facing



Anti-vibration D type
with oil hole



SumiTurn X Bar



Insert (eg.)

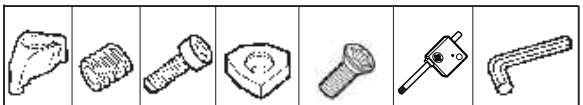
N-GU

Holders

Above figures show right hand tools.

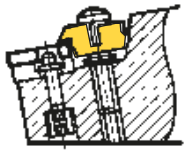
Cat. No.	Stock R	Stock L	øD min	Dimensions (mm) ød	h	ℓ_1	ℓ_2	f	γ	Insert (eg.)	Clamp	Spring	Clamp bolt	Shim	Shim Screw	Wrench	Wrench	
D25T - DWLN R/L 0804-32	●	●	32	25	23	300	26	17	-12°	WN□□0804○○	SCP-2			WNS0803B	BFTX0307N	TRX10 (*)	LH040	LH025
D32T - DWLN R/L 0804-40	●	●	40	32	30	300	26	22	-10°					WNS0804B	BFTX0409N (Nm) 3,4	TRX15 (*)		
D40U - DWLN R/L 0804-50	●	●	50	40	37	350	26	27	-10°									

Spare Parts



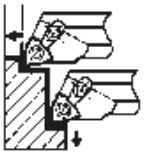
(*) Note: Wrench (TRX type) for shim screw is not included.

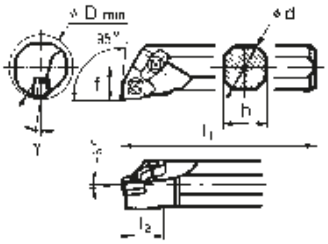
Holders



Tool holders (M type)
with wedge clamp system

S - MWLN R/L





Cat. No.	Stock R	Stock L	øD min	d	h	l_1	l_2	f	γ	
S25R - MWLN R/L 08	●	●	32	25	23	200	28	17	-15°	WNMG 0804_ _
S32S - MWLN R/L 08	●	●	40	32	30	250	28	22	-14°	
S40T - MWLN R/L 08	●	●	50	40	37	300	28	27	-12°	

All figures show right hand tools.

Applicable Inserts

Holder	Carbides, Cermets: Double sided	Carbides, Cermets: One sided	
S - MWLN R/L			
S....08	WNMG 0804_ _ NGU	WNMM 0804_ _ NMP	

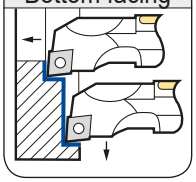
Spare Parts

Clamp	Double screw	Pin	Shim	Wrench	
					
HE060011W	WB 6-16	HE060011P	HE060011E	LH025, LH030	

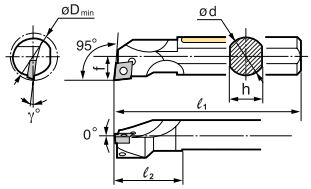
For Positive CC_ _- Inserts (α = 7°)

SumiTurn X Bar

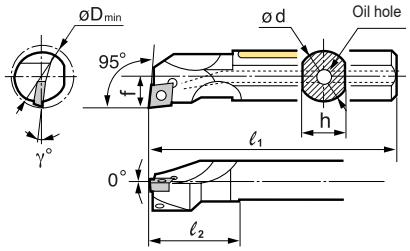
B/D-SCLC
Bottom facing



B Type (Fig.1)
Min. Bore Dia.



D Type (Fig.2)



Insert (ex.)

Spare Parts

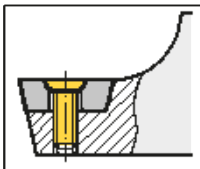

Holders

Steel shank	Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	ℓ2	γ	Fig.	Insert (ex.)	Screw	Wrench
Anti-vibration B type	B08H - SCLC R/L 0602-10	●	●	10	8	7	100	5,5	19	-13°	1.	CC□T 0602○○	BFTX02505N (1,1)	TRX08
	B10K - SCLC R/L 0602-12	●	●	12	10	9	125	6	21	-12°				
Anti-vibration D type with oil hole	D12M - SCLC R/L 0602-14	●	●	14	12	11	150	7	25	-10°	2.		BFTX02506N	
	D16R - SCLC R/L 09T3-18	●	●	18	16	15	200	11	30	-8°		CC□T 09T3○○	BFTX0407N	TRX15
	D20S - SCLC R/L 09T3-22	●	●	22	20	18	250	13	30	-7°			BFTX0409N	
	D25T - SCLC R/L 1204-32	●	●	32	25	23	300	17	38	-6°		CC□T 1204○○	BFTX0511N (5,0)	TRX20
	D32T - SCLC R/L 1204-40	●	●	40	32	30	300	20	53	-6°				

All figures show right hand tools.

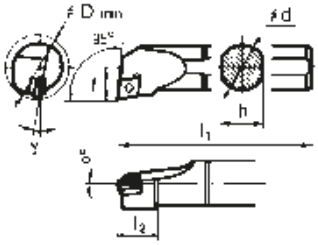
Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

Holders



Tool holders (S type)
with screw-lock system

S - SCLC R/L



Cat. No.	Stock R	Stock L	Dimensions (mm) øDmin	d	h	l1	l2	f	γ	
S10K - SCLC R/L 06	▲	▲	13	10	9	125	9	7	-12°	CC_ _ 0602_ _
S12M - SCLC R/L 06	▲	▲	16	12	11	150	11	9	-10°	
S16R - SCLC R/L 06	●	●	20	16	15	200	15	11	-8°	
S16R - SCLC R/L 09	▲	▲	20	16	15	200	15	11	-8°	CC_ _ 09T3_ _
S20S - SCLC R/L 09	▲	▲	25	20	18	250	20	13	-7°	
S25T - SCLC R/L 12		▲	32	25	23	300	20	17	-6°	CC_ _ 1204_ _
S32U - SCLC R/L 12	●	●	40	32	30	350	25	22	-10°	
S40V - SCLC R/L 12		●	50	40	37	400	25	27	-8°	

All figures show right hand tools.

Applicable Inserts

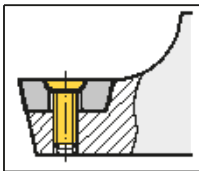
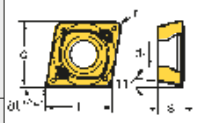
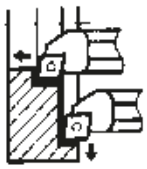
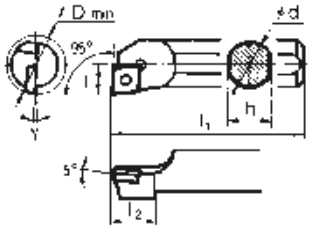
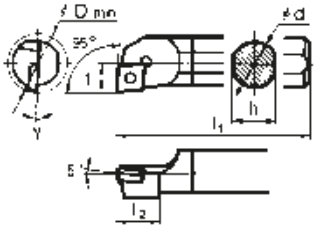
Holder	Carbides, Cermets			Screw	(N·m)	Wrench
S - SCLC R/L						
S.....06	CCMT 0602_ _ NFP	CCGW 0602_ _	-	BFTX02505N	1,1	TRX08
S16R.....09	CCMT 09T3_ _ NFP	CCGW 09T3_ _	-	BFTX0407N	3,0	TRX15
S20S.....09	CCMT 09T3_ _ NFP	CCGW 09T3_ _	-	BFTX0409N	3,4	TRX15
S.....12	CCMT 1204_ _ NFP	CCGW 1204_ _	-	BFTX0511N	5,0	TRX20

Spare Parts

● = Euro stock
❑ = Delivery on request
▲ = To be replaced by new item
(N·m) Recommended Tightening Torque (N·m)

Boring Bars
S/C...SCLP Type

Holders

	Tool holders (S type) with screw-lock system	Cat. No.	Stock		Dimensions (mm)							
			R	L	$øD_{min}$	d	h	l_1	l_2	f	γ	
S - SCLP R/L Steel shank 		S10K - SCLP R/L 08	●	●	12	10	9	125	12	6	-5°	CP_ T 0802_ _
		S12M - SCLP R/L 08	●	●	16	12	11	150	15	8	-3°	
		S16R - SCLP R/L 09		●	20	16	15	200	18	10	-3°	CP_ T 0903_ _
		S20S - SCLP R/L 09	●	●	25	20	18	250	18	12,5	0	
		S25T - SCLP R/L 12	●	●	28	25	22	300	17,4	14	-3°	CP_ T 1204_ _
C - SCLP R/L Carbide shank 		C10Q - SCLP R/L 08	●	❑	12	10	9	180	15	6	-5°	CP_ T 0802_ _
		C12R - SCLP R/L 08	❑	❑	16	12	11	200	15	8	-2°	
		C16S - SCLP R/L 09	●	❑	20	16	15	250	15	10	-2°	CP_ T 0903_ _

All figures show right hand tools.

Applicable Inserts

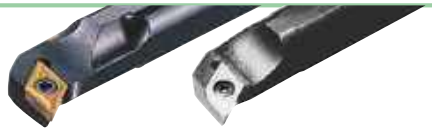
Holder	Carbides, Cermets	CBN	
S/C-SCLP R/L			
S/C 10.....08	CPGT 0802_ _ NSD	CPMW 0802_ _	
S/C 12.....08	CPGT 0802_ _ NSD	CPMW 0802_ _	
S/C 16.....09	CPGT 0903_ _ NSD	CPMW 0903_ _	
S 20.....09	CPGT 0903_ _ NSD	CPMW 0903_ _	
S 25.....12	CPGT 1204_ _ NSD	-	

Spare Parts

Screw	N·m	Wrench			
					
BFTX 0305 A	-	TRX 10			
BFTX 0305 A	-	TRX 10			
BFTX 0407 A	3,4	TRX 15			
BFTX 0407 A	3,4	TRX 15			
BFTX 0509 A	5,0	TRX 20			

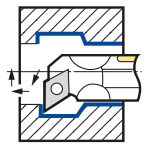
B/D/S...SDUC Type

For Positive DC_ _- Inserts (α = 7°)



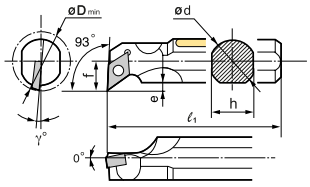
SumiTurn X Bar

B/D-SDUC
Copying

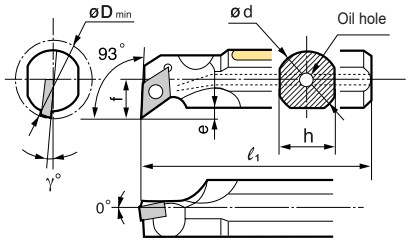


B Type (Fig.1)

Min. Bore Dia.



D Type (Fig.2)



Insert (ex.)

■ Spare Parts

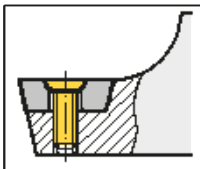

■ Holders

Steel shank	Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	e	γ	Fig.	Insert (ex.)	Screw	Wrench
Anti-vibration B type	B10M - SDUC R/L 0702-13	●	●	13	10	9	150	7	2,5	-8°	1.	DC□T 0702○○	BFTX02506N 1,5 (N·m)	TRX08
Anti-vibration D type with oil hole	D12M - SDUC R/L 0702-16	●	●	16	12	11	150	9	3,5	-8°	2.			
	D16R - SDUC R/L 0702-20	●	●	20	16	15	200	11	4,0	-6°				
	D20S - SDUC R/L 11T3-25	●	●	25	20	18	250	13	4,5	-6°		DC□T 11T3○○	BFTX0409N 3,4 (N·m)	TRX15
	D25S - SDUC R/L 11T3-32	●	●	32	25	22	250	17	7,0	-6°				
	D32T - SDUC R/L 11T3-40	●	●	40	32	30	300	22	8,0	-6°				

All figures show right hand tools.

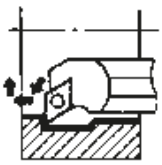
Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

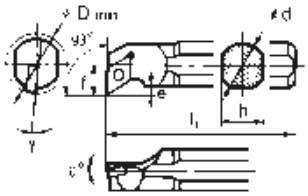
■ Holders



Tool holders (S type)
with screw-lock system

S - SDUC R/L





Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) d	h	l1	f	e	γ	
S10K - SDUC R/L 07	●	●	13	10	9	125	7	2,5	-8°	DC_ _ 0702_ _
S12M - SDUC R/L 07	●	●	16	12	11	150	9	3,5	-8°	
S16R - SDUC R/L 07	●	●	20	16	15	200	11	4	-6°	
S20S - SDUC R/L 11	●	●	25	20	18	250	13	4,5	-6°	DC_ _ 11T3_ _
S25T - SDUC R/L 11	●	●	32	25	22	300	17	7,5	-6°	
S32U - SDUC R/L 11	●	●	40	32	30	350	22	11	-6°	

All figures show right hand tools.

■ Applicable Inserts

■ Spare Parts

Holder	Carbides, Cermets		CBN, PCD	Screw	(N·m)	Wrench			
S - SDUC R/L S - SDQC R/L									
S10K.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S12M.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S16R.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S.....11	DCMT 11T3_ _ NFP	DCMT 11T3_ _ NSK	DCGW 11T3_ _	BFTX0409N	3,4	TRX15			

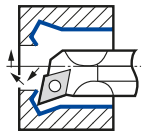
● = Euro stock

(N·m) Recommended Tightening Torque (N·m)

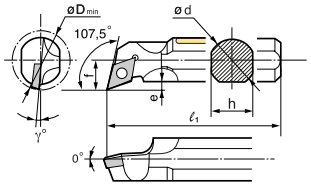
Boring Bars
B/D/S...SDQC Type

SumiTurn X Bar

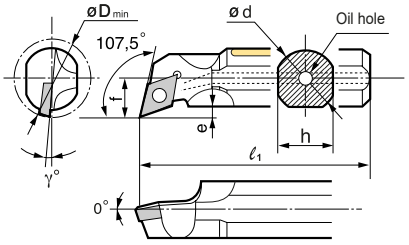
B/D-SDQC
Copying



B Type (Fig.1)
Min. Bore Dia.



D Type (Fig.2)



Insert (ex.)

■ Spare Parts

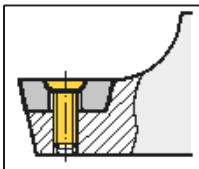

■ Holders

Steel shank	Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	e	γ	Fig.	Insert (ex.)	Screw	Wrench
Anti-vibration B type	B10M - SDQC R/L 0702-13	●	●	13	10	9	150	7	2,5	-8°	1.	DC□T 0702○○	BFTX02506N 1,5 (N·m)	TRX08
Anti-vibration D type with oil hole	D12M - SDQC R/L 0702-16	●	●	16	12	11	150	9	3,5	-8°	2.			
	D16R - SDQC R/L 0702-20	●	●	20	16	15	200	11	4,0	-6°				
	D20S - SDQC R/L 11T3-25	●	●	25	20	18	250	13	4,5	-6°		DC□T 11T3○○	BFTX0409N 3,4 (N·m)	TRX15
	D25S - SDQC R/L 11T3-32	●	●	32	25	22	250	17	7,0	-6°				
	D32T - SDQC R/L 11T3-40	●	●	40	32	30	300	22	7,0	-10°				

All figures show right hand tools.

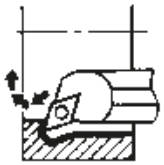
Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

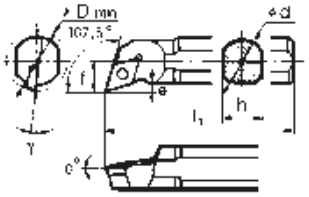
■ Holders



Tool holders (S type)
with screw-lock system

S - SDQC R/L





Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) d	h	l1	f	e	γ	
S10K - SDQC R/L-07	●	●	13	10	9	125	7	2,5	-8°	DC_ _ 0702_ _
S12M - SDQC R/L-07	●	●	16	12	11	150	9	3,5	-8°	
S16R - SDQC R/L-07	●	●	20	16	15	200	11	4	-6°	
S20S - SDQC R/L-11	●	●	25	20	18	250	13	4,5	-6°	DC_ _ 11T3_ _
S25T - SDQC R/L-11	●	●	32	25	22	300	17	7	-6°	

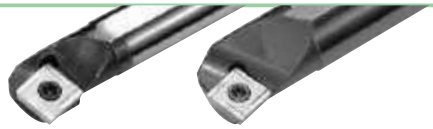
All figures show right hand tools.

■ Applicable Inserts

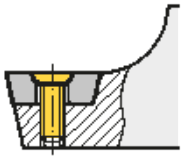
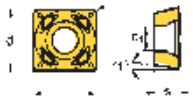
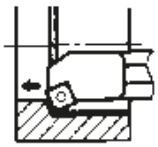
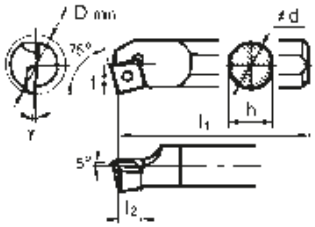
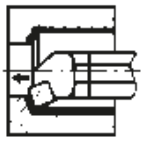
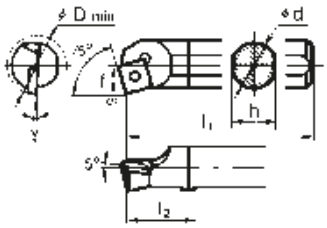
■ Spare Parts

Holder	Carbides, Cermets		CBN, PCD	Screw	(N·m)	Wrench			
S - SDUC R/L S - SDQC R/L									
S10K.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S12M.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S16R.....07	DCMT 0702_ _ NFP	DCMT 0702_ _ NSK	DCGW 0702_ _	BFTX02506N	1,5	TRX08			
S.....11	DCMT 11T3_ _ NFP	DCMT 11T3_ _ NSK	DCGW 11T3_ _	BFTX0409N	3,4	TRX15			

For Positive SP_ _- Inserts (α = 11°)



Holders

	Tool holders (S type) with screw-lock system	Cat. No.	Stock		Dimensions (mm)							
			R	L	$øD_{min}$	d	h	l_1	l_2	f	γ	
S - SSKP R/L Steel shank 		S12M - SSKP R/L 09		●	16	12	11	150	9	8	-6°	SP_ T 0903_ _
		S16R - SSKP R/L 09	●	●	20	16	15	200	6,8	10	-4°	
		S20S - SSKP R/L 09	●	❑	25	20	18	250	8,5	12,5	-2°	
		S25T - SSKP R/L 09	●		28	25	22	300	5	14	0	
C - SSKP R/L Carbide shank 		C12R - SSKP R/L 09	●		16	12	11	200	25	8	-6°	SP_ T 0903 _ _
		C16S - SSKP R/L 09	●		20	16	15	250	30	10	-4°	

All figures show right hand tools.

Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.
SPGT figure shows left hand tool.

Applicable Inserts

Holder	Carbides, Cermets	CBN	
S/C-SSKP R/L			
S/C 12.....09	SPGT 0903_ _ L/R-SD	SPGW 0903_ _	
S/C 16.....09			
S 20.....09			
S 25.....09			

Spare Parts

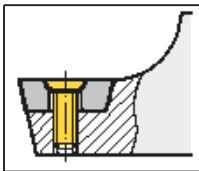
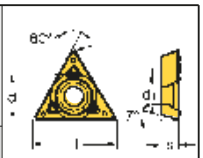
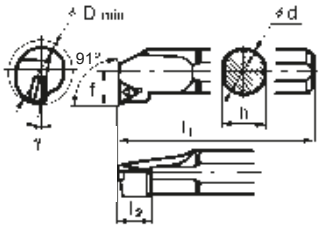
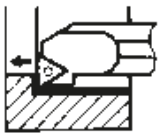
Screw	N·m	Wrench			
					
BFTX 0307 A	2,0	TRX 10			

● = Euro stock
❑ = Delivery on request

N·m Recommended Tightening Torque (N·m)

Boring Bars
S ...STFC Type

■ Holders

	Tool holders (S type) with screw-lock system	Cat. No.	Stock		Dimensions (mm)							
			R	L	$øD_{min}$	d	h	l_1	l_2	f	γ	
S - STFC R/L		S10K - STFC R/L 09	●	●	13	10	9	125	-	10,5	-12°	TC_ _ 0902_ _
		S12M - STFC R/L 11	●	●	16	12	11	150	10	9	-10°	TC_ _ 1102_ _
		S16R - STFC R/L 11	●	●	20	16	15	200	12	11	-6°	
		S20S - STFC R/L 11	●	●	25	20	18	250	14	13	-3°	
		S25T - STFC R/L 16	●	❑	32	25	23	300	18	17	-6°	TC_ _ 16T3_ _
		S32U - STFC R/L 16	●		40	32	30	350	20	22	-10°	
		S40V - STFC R/L 16	❑		50	40	37	400	25	27	-8°	

All figures show right hand tools.

■ Applicable Inserts

Holder	Carbides, Cermets		CBN, PCD
S - STFC R/L			
S.....09	TCMT 0902_ _ NFP	-	TCGW 0902_ _
S.....11	TCMT 1102_ _ NFP	TCMT 1102_ _ NSK	TCGW 1102_ _
S.....16	TCMT 16T3_ _ NFP	TCMT 16T3_ _ NSK	TCGW 16T3_ _

■ Spare Parts

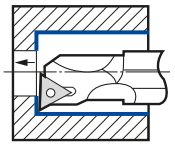
Screw	N·m	Wrench
		
BFTX02205N	0,5	TRX06
BFTX02506N	1,5	TRX08
BFTX0409N	3,4	TRX15

Boring Bars
B/D/S/C...STUP(B) Type

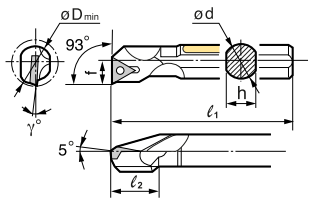
For Positive TB / TP _ _- Inserts (α = 5, 11°)

SumiTurn X Bar

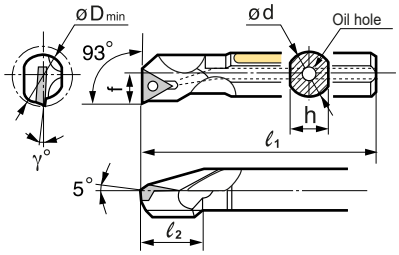
B/D-STUP
Stop boring



B Type (Fig.1)
Min. Bore Dia.



D Type (Fig.2)



Insert (ex.)

■ Spare Parts

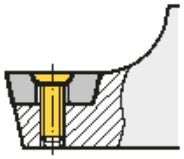

■ Holders

Steel shank	Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	ℓ2	γ	Fig.	Insert (ex.)	Screw	Wrench
Anti-vibration B type	B08H - STUP R/L 0802-10	●	●	10	8	7	100	5	13	-10°	1.	TP□T 0802○○	BFTX0204A ⊜0,5	TRX06
	B10K - STUP R/L 1103-12	●	●	12	10	9	125	6	15	-8°		TP□T 1103○○	BFTX0306A (N·m) 2,0	TRX10
Anti-vibration D type with oil hole	D12M - STUP R/L 1103-14	●	●	14	12	11	150	7	17	-7°	2.			
	D16R - STUP R/L 1103-18	●	●	18	16	15	200	9	18	-4°				
	D20S - STUP R/L 1103-22	●	●	22	20	18	250	11	18	-3°			BFTX0307A ⊜2,0	
	D25T - STUP R/L 1604-28	●	●	28	25	22	300	14	18	-2°		TP□T 1604○○	BFTX0410A (N·m) 3,4	TRX15
	D32T - STUP R/L 1604-40	●	●	40	32	30	300	20	13	-2°				

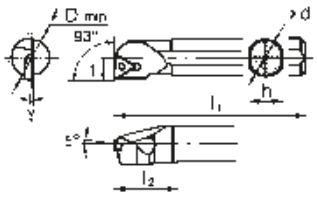
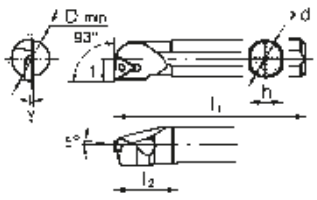
All figures show right hand tools.

Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

■ Holders



Tool holders (S type)
with screw-lock system

		Cat. No.	Stock R	Stock L	Dimensions (mm) øDmin	d	h	l1	l2	f	γ	
S - STUP/B R/L Steel shank		S08H - STUB R/L 06-01	●	●	8	8	7	100	30	4	-12°	TB_T 0601_ _
		S08H - STUP R/L 08-02	●	●	10	8	7	100	13	5	-10°	TP_T 0802_ _
		S10K - STUP R/L 11-03	●	●	12	10	9	125	15	6	-8°	TP_T 1103_ _
		S12M - STUP R/L 11-03	●	●	16	12	11	150	17	8	-6°	
		S16R - STUP R/L 11-03	●	●	20	16	15	200	18	10	-2°	
		S20S - STUP R/L 16	●	●	25	20	18	250	18	12,5	-3°	TP_T 1604_ _
		S25T - STUP R/L 16	●	●	28	25	22	300	18	14	-2°	
C - STUP/B R/L Carbide shank		C08M - STUB R/L 06	●	●	8	8	7	150	50	4	-12°	TB_T 0601_ _
		C08M - STUP R/L 08	●	●	10	8	7	150	18	5	-10°	TP_T 0802_ _
		C10Q - STUP R/L 11	●	●	12	10	9	180	19	6	-8°	TP_T 1103_ _
		C12R - STUP R/L 11		●	16	12	11	200	25	8	-6°	
		C16S - STUP R/L 11	●	❑	20	16	15	250	30	10	-4°	

■ Applicable Inserts

Holder	Carbides, Cermets	CBN, PCD
S/C-STU_ R/L		
S/C 08.....06-01	TBGT 0601_ _L/R-W	-
S/C 08.....08-02	TPGT 0802_ _L/R-W	TPMW 0802_ _
S/C 10.....11-03	TPGT 1103_ _L/R-W	TPGW 1103_ _
S/C 12/16.....11-03	TPGT 1103_ _L/R-W	TPGW 1103_ _
S 20/25.....16	TPGT 1604_ _L/R-W	TPGW 1604_ _

■ Spare Parts

Screw	(N·m)	Wrench
		
BFTX 0204 A	0,5	TRX 06
BFTX 0204 A	0,5	TRX 06
BFTX 0306 A	2,0	TRX 10
BFTX 0307 A	2,0	TRX 10
BFTX 0410 A	3,4	TRX 15

● = Euro stock
❑ = Delivery on request

(N·m) Recommended Tightening Torque (N·m)

Boring Bars
D...SVUB / SVZB Type

SumiTurn X Bar

Anti-vibration D type with oil hole

D-SVUB

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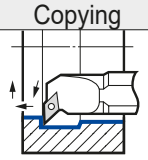


Fig.1

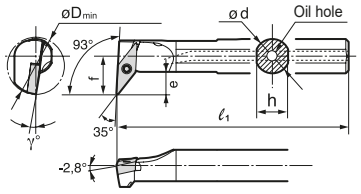
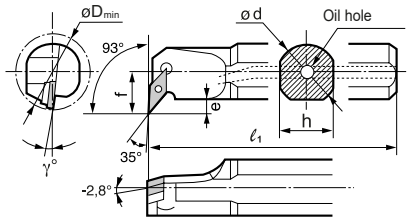


Fig.2



Insert (ex.)

Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	e	γ	Fig.	Insert (ex.)	Pin	Clamp screw	Shim	Screw	Wrench	Wrench
D16R - SVUB R/L 1103-22	●	●	22	16	15	200	13	5	-7°	1.	VB□□ 1103○○	–	–	–	BFTX02506	TRX08	–
D20S - SVUB R/L 1103-27	●	●	27	20	18	250	15	5	-5°								
D25T - SVUB R/L 1604-35	●	●	35	25	23	300	20,5	9	-7,5°	2.	VB□□ 1604○○	VP32B	BH03504	SVP32	BFTX03508 (M+) 2,0	TRX10	LH020
D32T - SVUB R/L 1604-40	●	●	40	32	30	300	22	9	-7,5°								

Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

SumiTurn X Bar

Anti-vibration D type with oil hole

D-SVZB

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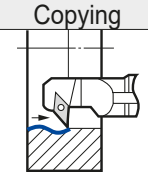


Fig.1

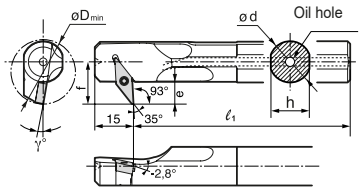
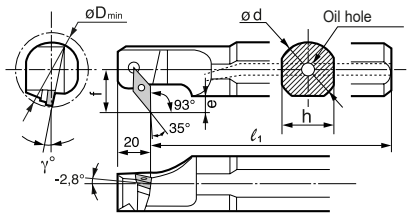


Fig.2



Insert (ex.)

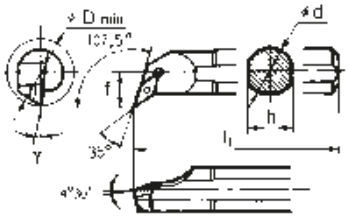
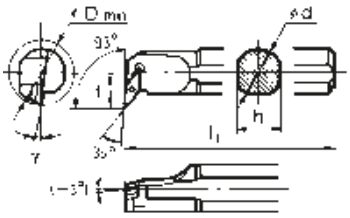
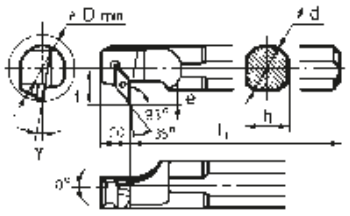
Spare Parts

Holders

Above figures show right hand tools.

Cat. No.	Stock R	Stock L	øDmin	Dimensions (mm) ød	h	ℓ1	f	e	γ	Fig.	Insert (ex.)	Pin	Clamp screw	Shim	Screw	Wrench	Wrench
D16R - SVZB R/L 1103-22	●	●	22	16	15	200	13	5	-7	1.	VB□□ 1103○○	–	–	–	BFTX02506	TRX08	–
D20S - SVZB R/L 1103-27	●	●	27	20	18	250	15	5	-5								
D25T - SVZB R/L 1604-35	●	●	35	25	23	300	20,5	9	-7,5	2.	VB□□ 1604○○	VP32B	BH03504	SVP32	BFTX03508 (M+) 2,0	TRX10	LH020
D32T - SVZB R/L 1604-40	●	●	40	32	30	300	22	9	-7,5								

Holders

	Tool holders (S type) with screw-lock system	Cat. No.	Stock R	Stock L	Dimensions (mm) øDmin	d	h	l1	f	γ	e	
S - SVQB R/L		S16R - SVQB R/L 11	●	●	22	16	15	200	13	-6,5°		VB_ _ 1102_ _
		S20S - SVQB R/L 11	●	●	27	20	18	250	15	-6,5°		
		S25T - SVQB R/L 16	●	●	35	25	23	300	20,5	-6,5°		VB_ _ 1604_ _
		S32U - SVQB R/L 16	●	●	40	32	30	350	22	-6,5°		
		S40V - SVQB R/L 16	❑	❑	50	40	37	400	27	-6,5°		
S - SVUB R/L		S16R - SVUB R/L 11	●	●	22	16	15	200	13	-7,5°		VB_ _ 1102_ _
		S20S - SVUB R/L 11	●	●	27	20	18	250	15	-7,5°		
		S25T - SVUB R/L 16	●	●	35	25	23	300	20,5	-7,5°		VB_ _ 1604_ _
		S32U - SVUB R/L 16	●	●	40	32	30	350	22	-7,5°		
		S40V - SVUB R/L 16	❑	❑	50	40	37	400	27	-7,5°		
S - SVZB R/L		S16R - SVZB R/L 11	●	●	22	16	15	200	13	-7,5°	5	VB_ _ 1102_ _
		S20S - SVZB R/L 11	●	●	27	20	18	250	15	-7,5°	5	
		S25T - SVZB R/L 16	●	●	35	25	23	300	20,5	-7,5°	9	VB_ _ 1604_ _
		S32U - SVZB R/L 16	●	●	40	32	30	350	22	-7,5°	9	
		S40V - SVZB R/L 16		❑	50	40	37	400	27	-7,5°	10	

All figures show right hand tools.

Applicable Inserts

Holder	Carbides, Cermets		CBN
			
S16R	VBMT 1102_ _ NFP	VBMT 1102_ _ NSK	-
S20S	VBMT 1102_ _ NFP	VBMT 1102_ _ NSK	-
S25T	VBMT 1604_ _ NFP	VBMT 1604_ _ NSK	VBGW 1604_ _
S32U	VBMT 1604_ _ NFP	VBMT 1604_ _ NSK	VBGW 1604_ _
S40V	VBMT 1604_ _ NFP	VBMT 1604_ _ NSK	VBGW 1604_ _

Spare Parts

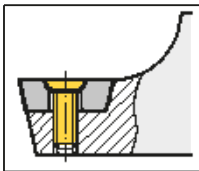
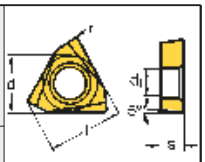
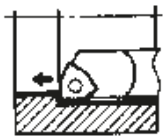
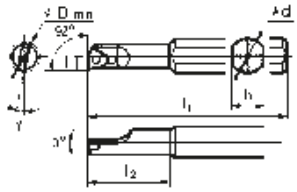
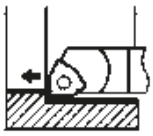
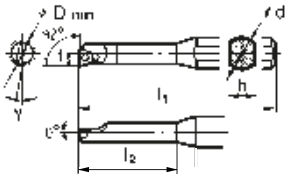
Holder	Pin	Clamp bolt	Shim	Screw	Wrench	Wrench
						
S16R	-	-	-	BFTX02506N ⓜ 1,5	TRX08	-
S20S	-	-	-		TRX08	-
S25T	-	-	-	BFTX03508 ⓜ 2,0	TRX10	-
S32U	VP32B	BH03504	SVP32		TRX10	LH020
S40V	VP40B	BH03504	SVP32		TRX10	LH020

● = Euro stock
❑ = Delivery on request

ⓜ Recommended Tightening Torque (N·m)

Boring Bars
S/C...SWUB Type

■ Holders

	Tool holders (S type) with screw-lock system	Cat. No.	Stock		Dimensions (mm)							
			R	L	$øD_{min}$	d	h	l_1	l_2	f	γ	
S - SWUB R/L Steel shank 		S08H - SWUB R/L 06-01	●	●	5,5	8	7	100	18	3	-12°	WBGT 0601_ _
C - SWUB R/L Carbide shank 		C08K - SWUB R/L 06	●	●	5,5	8	7	125	30	3	-12°	WBGT 0601_ _

All figures show right hand tools.

Remarks: Right handed tool holders are applicable with left handed or neutral inserts.
Left handed tool holders are applicable with right handed or neutral inserts.

■ Applicable Inserts

■ Spare Parts

Holder	Carbides, Cermets	CBN		Screw	N·m	Wrench			
S/C-SWUBR/L									
S/C 08.....R 06	WBGT 0601_ _ LW	-		BFTX 0203 N	0,5	TRX 06			
S/C 08.....L 06	WBGT 0601_ _ RW	-		BFTX 0203 N	0,5	TRX 06			

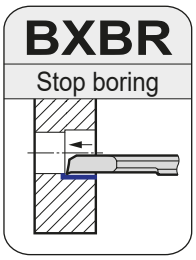
BXBR Type

Characteristics

SumiSmall

- Economical, two-cornered insert.
- Maximum boring depth 5D (5 times the shank diameter)
- Usable at any desired overhang.
- Shank size = min. bore diameter for easy selection. (Available from ø 2 mm to ø 5 mm in 0,5 mm increments.)
- KBMX Type cutting edge used, no breaker versions also available in stock.

Small Hole Finishing



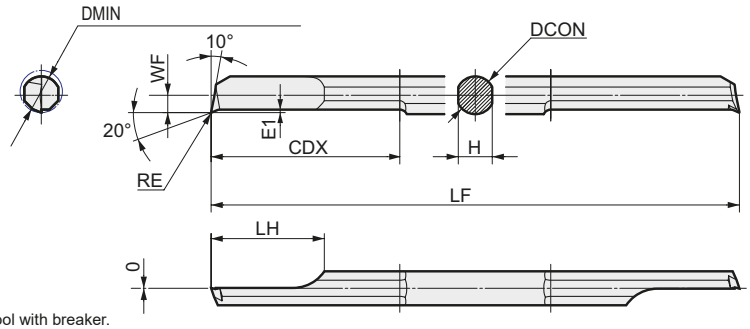
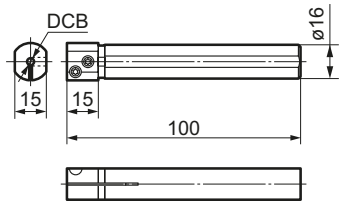


Figure shows tool with breaker.

Solid Carbide Bar

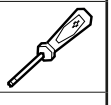
	Cat. No.	Stock		DMIN	Dimensions (mm)								Applicable Sleeve
		ACZ150	AC530U		DCON	H	LF	WF	LH	CDX	E1	RE	
With Breaker	BXBR 02005 R	❍		**2,0**	2,0	1,8	50	0,80	6,0	10,0	0,20	0,05	HBX 2016
	02020 R	❍		**2,0**	2,0	1,8	50	0,80	6,0	10,0	0,20	0,20	HBX 2016
	BXBR 02505 R	❍		**2,5**	2,5	2,2	50	1,05	7,5	12,5	0,20	0,05	HBX 2516
	02520 R	❍		**2,5**	2,5	2,2	50	1,05	7,5	12,5	0,20	0,20	HBX 2516
	BXBR 03005 R	❍		**3,0**	3,0	2,7	50	1,30	9,0	15,0	0,25	0,05	HBX 3016
	03020 R	❍		**3,0**	3,0	2,7	50	1,30	9,0	15,0	0,25	0,20	HBX 3016
	BXBR 03505 R	❍		**3,5**	3,5	3,1	60	1,55	10,5	17,5	0,25	0,05	HBX 3516
	03520 R	❍		**3,5**	3,5	3,1	60	1,55	10,5	17,5	0,25	0,20	HBX 3516
	BXBR 04005 R	❍		**4,0**	4,0	3,6	60	1,80	12,0	20,0	0,35	0,05	HBX 4016
	04020 R	❍		**4,0**	4,0	3,6	60	1,80	12,0	20,0	0,35	0,20	HBX 4016
	BXBR 04505 R	❍		**4,5**	4,5	4,1	70	2,05	13,5	22,5	0,35	0,05	HBX 4516
	04520 R	❍		**4,5**	4,5	4,1	70	2,05	13,5	22,5	0,35	0,20	HBX 4516
	BXBR 05005 R	❍		**5,0**	5,0	4,5	70	2,30	15,0	25,0	0,40	0,05	HBX 5016
	05020 R	❍		**5,0**	5,0	4,5	70	2,30	15,0	25,0	0,40	0,20	HBX 5016
No Breaker	BXBR 02005 R-NB	❍		**2,0**	2,0	1,8	50	0,80	6,0	10,0	0,20	0,05	HBX 2016
	02020 R-NB	❒		**2,0**	2,0	1,8	50	0,80	6,0	10,0	0,20	0,20	HBX 2016
	BXBR 02505 R-NB	❒		**2,5**	2,5	2,2	50	1,05	7,5	12,5	0,20	0,05	HBX 2516
	02520 R-NB	❍		**2,5**	2,5	2,2	50	1,05	7,5	12,5	0,20	0,20	HBX 2516
	BXBR 03005 R-NB	❍		**3,0**	3,0	2,7	50	1,30	9,0	15,0	0,25	0,05	HBX 3016
	03020 R-NB	❍		**3,0**	3,0	2,7	50	1,30	9,0	15,0	0,25	0,20	HBX 3016
	BXBR 03505 R-NB	❒		**3,5**	3,5	3,1	60	1,55	10,5	17,5	0,25	0,05	HBX 3516
	03520 R-NB	❍		**3,5**	3,5	3,1	60	1,55	10,5	17,5	0,25	0,20	HBX 3516
	BXBR 04005 R-NB	❍		**4,0**	4,0	3,6	60	1,80	12,0	20,0	0,35	0,05	HBX 4016
	04020 R-NB	❍		**4,0**	4,0	3,6	60	1,80	12,0	20,0	0,35	0,20	HBX 4016
	BXBR 04505 R-NB	❍		**4,5**	4,5	4,1	70	2,05	13,5	22,5	0,35	0,05	HBX 4516
	04520 R-NB	❍		**4,5**	4,5	4,1	70	2,05	13,5	22,5	0,35	0,20	HBX 4516
	BXBR 05005 R-NB	❍		**5,0**	5,0	4,5	70	2,30	15,0	25,0	0,40	0,05	HBX 5016
	05020 R-NB	❍		**5,0**	5,0	4,5	70	2,30	15,0	25,0	0,40	0,20	HBX 5016

Adaptor Sleeve (Optional)



Cat. No.	Stock	DCB (mm)	Applicable Bar
HBX 2016	❍	2,0	BXBR 020○○ R(-NB)
HBX 2516	❍	2,5	BXBR 025○○ R(-NB)
HBX 3016	❍	3,0	BXBR 030○○ R(-NB)
HBX 3516	❍	3,5	BXBR 035○○ R(-NB)
HBX 4016	❍	4,0	BXBR 040○○ R(-NB)
HBX 4516	❍	4,5	BXBR 045○○ R(-NB)
HBX 5016	❍	5,0	BXBR 050○○ R(-NB)

Spare Parts (For sleeve)

Screw	(N·m)	Setting Screw	Wrench
			
BFTX 0409 N	**3,4**	BT 06035 T	TRD 15

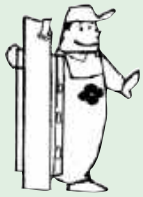
* BXBR bars can be used with HBB type sleeves. Commercially available sleeves may also be used.

❍ = Japan stock

(N·m) Recommended Tightening Torque (N·m)

Grooving & Parting-Off Threading Holders

F1–F56



GND Type

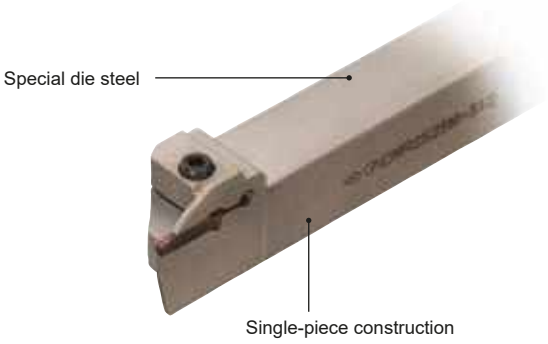
Characteristics

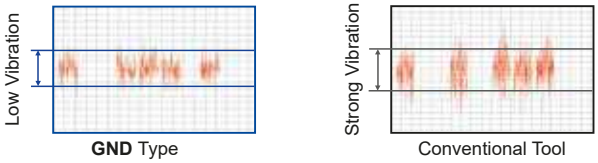
- Wide range of application processes
  Applicable for grooving, turning, copying, facing, boring and cut-off.
- Achieving stable tool life
  An array of chipbreakers improves the efficiency in chip control in various applications and prevents unexpected damages caused by chip blockade.
- Achieving smooth cutting and high efficiency machining
  Holders utilizing one-piece body construction made of special steel, reduce vibration by 30 % during machining as compared to conventional types.
- Achieving high precision grooving widths with moulded inserts
  Grooving insert width tolerance of ±0,03 mm over the entire range

Cutting Performance

Eliminates Vibration

Reduces vibration up to 30 % compared to conventional grades thanks to its high-rigidity design.



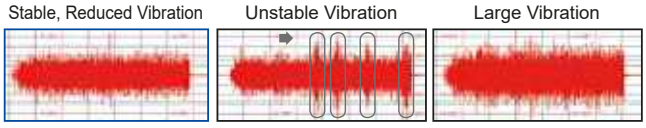


GND Type — Conventional Tool

Work Material:	15CrMo5
Holder:	GNDL R2525M 220
Insert:	GCM N2002 GG
Cutting Conditions:	v_c = 100 m/min, f = 0,10 mm/rev, a_p = 20 mm, wet

Ensures both, high rigidity and good chip evacuation

Internal



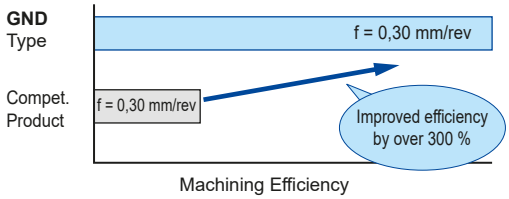
GND Type — Comp. A — Comp. B

Work Material:	15CrMo5
Holder:	GNDI R2532 T306
Insert:	GCM N3002 GG
Cutting Conditions:	v_c = 100 m/min, f = 0,05 mm/rev, a_p = 3,0 mm, wet

Application Examples

Substantially improved machining efficiency!

High rigidity holder enables high load machining at high feed rate.



Work Material:	42CrMo4
Holder:	GNDL R2525M 320
Insert:	GCM N3002 GG (AC530U)
Cutting Conditions:	v_c = 130 m/min, f = 0,30 mm/rev, wet

Stable and long tool life ensures reliable functionality even on automatic production lines!

Reduction of chattering prevents unexpected breakage.

GND Type — Competitor

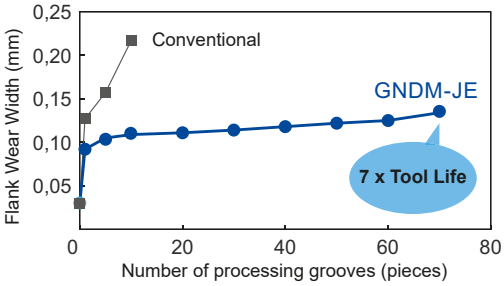
Work Material:	C53
Holder:	GNDM L2525M 618
Insert:	GCM N6030 RG (AC530U)
Cutting Conditions:	v_c = 130 m/min, f = 0,30 mm/rev, wet

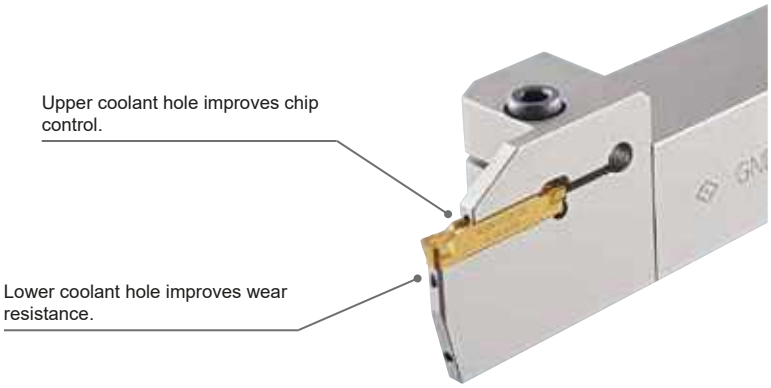
New

Internal Coolant Grooving Tool Holder
GNDM-JE Type / GNDL-JE Type

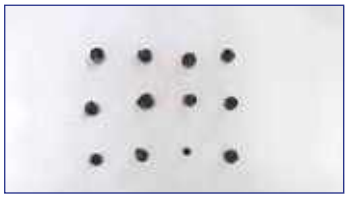
- Newly developed 2-hole coolant design optimizes cooling of the insert and improves chip removal, extending tool life and allowing for improved speeds and feeds in production.
- Grooving width range from 2,0 to 6,0 mm.
- Achieves both high efficiency in high speed machining and extension of tool life due to internal coolant supply to the cutting edge.
- Improves chip control by applying direct coolant from cutting edge side.

Wear Resistance





Chip Control



Coolant Pressure: 7 MPA

Coolant Pressure: 1 MPA

External Coolant

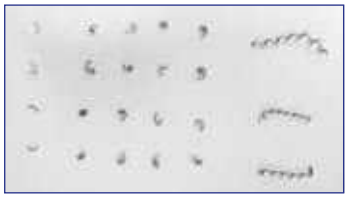
Work Material:	Ti-6Al-4V
Holder:	GNDM R2525K 312JE
Insert:	GCM N3002 GG (AC530U)
Cutting Conditions:	v_c = 60 m/min, f = 0,1 mm/rev, a_p = 5,0 mm, wet

CF Type Chipbreaker for Cut-Off

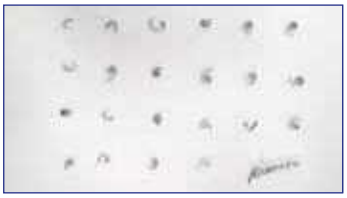
New

- Lead angle of 10°/15° for improved sharpness in cut-off machining.
- Asymmetrical chipbreaker design provides excellent chip control even in difficult to machine conditions.

10°/15°



GCMN20003 CF 10



GCMN20003 CF 15

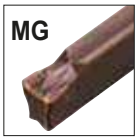
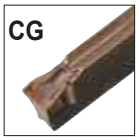
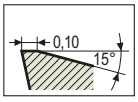
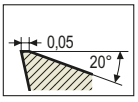
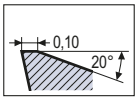
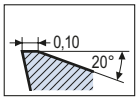
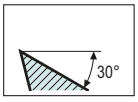
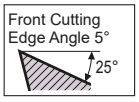
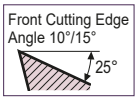
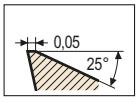
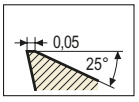
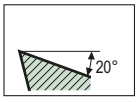
Competitor

Work Material:	St42-3
Holder:	GNDM R2525M 220
Insert:	GCM N3002 CF-10,15 (AC1030U)
Cutting Conditions:	n = 2000 min^{-1}, f = 0,08 mm/rev, wet

GND Type

Inserts - Chipbreaker Series

Achieving stability and longer tool life. A variety of chipbreakers ensures outstanding chip control performance in many different types of applications.

Grooving / Turning		Grooving / Cut-Off			Cut-Off		Profiling	Necking	Non Ferrous Metals
General Type	Low Feed Type	General Type	Low Feed Type	Low Cutting ForceType	Cut-Off Type	Low Cutting ForceType	General Type	General Type	General Type
MG	ML	GG	GL	GF	CG	CF New	RG	RN	GA
									
Cross Section of Cutting Edge									
									
Grooving Width (mm)									
1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0 7,0 8,0**	1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0 7,0 8,0**	1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0 7,0 8,0**	1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0 7,0 8,0**	**1,25 1,5 2,0** **3,0 4,0 5,0** **6,0 7,0 8,0**	1,25 1,5 **2,0** **3,0 4,0** 5,0 6,0 7,0 8,0	1,25 1,5 **2,0** **3,0** 4,0 5,0 6,0 7,0 8,0	1,25 1,5 2,0 **3,0 4,0 5,0** **6,0 7,0 8,0**	1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0** 7,0 8,0	1,25 1,5 **2,0** **3,0 4,0 5,0** **6,0** 7,0 8,0
Grade									
AC830P AC425K **AC520U AC530U** AC1030U T2500A H10	**AC830P AC425K** **AC520U AC530U** *AC1030U **T2500A** H10	**AC830P** AC425K **AC520U AC530U** AC1030U T2500A H10	**AC830P** AC425K **AC520U AC530U** AC1030U T2500A H10	**AC830P** AC425K **AC520U AC530U** *AC1030U **T2500A** H10	**AC830P** AC425K **AC520U AC530U** AC1030U T2500A H10	AC830P AC425K AC520U AC530U **AC1030U** T2500A H10	**AC830P AC425K** **AC520U AC530U** AC1030U **T2500A** H10	**AC830P AC425K** **AC520U AC530U** AC1030U T2500A H10	AC830P AC425K AC520U AC530U AC1030U T2500A **H10**

Stock

* Only use with GNDIS

Recommended Cutting Conditions

Work Material	P Carbon Steel / Alloy Steel				M Stainless Steel			K Cast Iron				S Exotic Alloy			N
Grade	AC830P	AC520U	AC530U	T2500A	AC830P	AC520U	AC530U	AC425K	AC520U	AC530U	AC1030U	AC520U	AC530U	AC1030U	H10
Cutting Speed (m/min)	80–200	80–200	50–200	50–200	70–150	70–150	50–150	80–200	60–200	50–200	50–200	20–80	20–60	20–60	150–300

Please see cutting data page F14

Excellent Chip Control

Grooving

GND Type
(**GG** Type Chipbreaker)

Conventional Tool

Work Material:	15CrMo5
Holder:	GNDL R2525M 320
Insert:	GCM N3002 GG
Cutting Conditions:	v_c=100 m/min, f=0,15 mm/rev, a_p=12,0 mm, wet

Turning

GND Type
(**ML** Type Chipbreaker)

Conventional Tool

Work Material:	15CrMo5
Holder:	GNDM R2525M 312
Insert:	GCM N3002 ML
Cutting Conditions:	v_c=100 m/min, f=0,10 mm/rev, a_p=0,5 mm, wet

Cut-Off

GND Type
(**CG** Type Chipbreaker)

Conventional Tool

Work Material:	X5CrMo17122 (Ø 30 mm)
Holder:	GNDL R2525M 220
Insert:	GCM R2002 CG 05
Cutting Conditions:	v_c = 100 m/min, f = 0,15 mm/rev, wet

Profiling

GND Type
(**RG** Type Chipbreaker)

Conventional Tool

Work Material:	15CrMo5
Holder:	GNDM R2525M 312
Insert:	GCM N3015 RG
Cutting Conditions:	v_c=100 m/min, f=0,15 mm/rev, a_p=0,1 mm, wet

Chipbreaker Selection

	Grooving / Turning	Grooving	Cut-Off
1st Recommendation	**MG** General Feed	**GG** General Feed	**GG** General Feed
	Improved Chip Control / Chipping Prevention	Improved Chip Control / Chipping Prevention	Prevent Nip Formation / Good Chip Control / Improved Chip Control / Chipping Prevention
2nd Recommendation	**ML** Low Feed, Good Chip Control	**GL** General Feed, Good Chip Control	**CG** General Feed, Feed Direction Front Cutting Edge Angle 5° / **GL** General Feed, Good Chip Control
		Good Chip Control / Reduce Chattering / Chipping Prevention	Prevent Nip Formation / Chipping Prevention / Good Chip Control / Reduce Chattering / Chipping Prevention
		GF Low Cutting Force	**CF** New, Low Cutting Force, Feed Direction Front Cutting Edge Angle 10°/15° / **GF** Low Cutting Force

	Profiling / Radius Grooving Outside Diameter	Necking / Radius Grooving Internal Profiling	For Non Ferrous Metals
Recommendation	**RG** General Feed, 1st Recommendation	**RN** General Feed	**GA** General Feed
	RN General Feed, 2nd Recommendation, w = 2 mm		

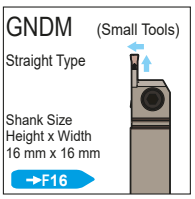
Grade Selection

	P Steel	M Stainless Steel	K Cast Iron	S Exotic Alloy	N Non Ferrous Metals
1st Recommendation	AC530U/AC1030U PVD	AC530U/AC1030U PVD	AC425K CVD	AC520U PVD	H10 Uncoated Carbide
	Insufficient Wear Resistance / Chipping Countermeasures; Importance of Surface Finish / Chipping Countermeasures	Insufficient Wear Resistance / Chipping Countermeasures	Chipping Countermeasures / Insufficient Wear Resistance	Chipping Countermeasures	
2nd Recommendation	AC520U PVD	AC520U PVD	AC520U PVD		
	Insufficient Wear Resistance / Chipping Countermeasures; Chipping Countermeasures	Insufficient Wear Resistance / Chipping Countermeasures	Chipping Countermeasures / Insufficient Wear Resistance	Insufficient Wear Resistance	
	AC830P CVD; T2500A Uncoated Cermet	AC830P CVD	AC530U/AC1030U PVD	AC530U/AC1030U PVD	

GND Type

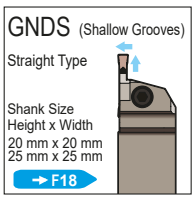
For External Machining (Straight Type)

Turning / Profiling



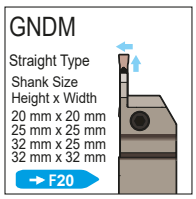
Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA



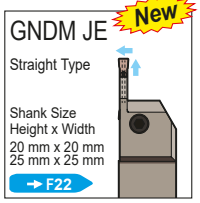
Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA



Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

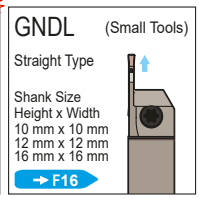
Chipbreaker: MG ML GG GL GF CG CF RG RN GA



Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

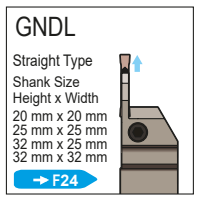
Chipbreaker: MG ML GG GL GF CG CF RG RN GA

Grooving / Cut-Off



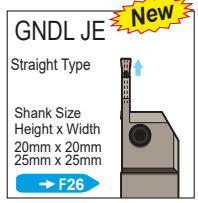
Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA



Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA



Grooving Width (mm): 1,25 | 1,5 | 2,0 / 3,0 | 4,0 | 5,0 / 6,0 | 7,0 | 8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA

■ Series for External Machining (Straight Type)

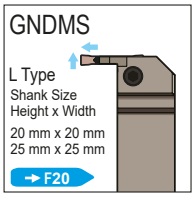
Type	Shank Size Height	Shank Size Width	Cutting Width (mm)	Series	Max. Grooving Depth (mm)	Ref. Page	Applicable Chipbreaker
					5 10 15 20 25 30		MG ML GG GL GF CG CF RG RN GA
Small Tools	10	10	1,25 1,5	GNDL	10	→ F16	◎
			2	GNDL	10		○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDL	10		○ ○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
	12	12	1,25 1,5	GNDL	12	→ F16	◎
			2	GNDL	12,5		○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDL	12,5		○ ○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
	16	16	1,25	GNDM	8	→ F16	◎
			1,25 1,5	GNDL	12,5		◎
			1,5	GNDM	10		◎
			2	GNDM	12		○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			2	GNDL	16		○ ○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDM	12		◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDL	16		○ ○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
Straight Type	20	20	1,25 1,5	GNDM	10	→ F20	◎
			1,25 1,5	GNDL	16	→ F24	◎
			2	GNDS	6	→ F18	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			2	GNDM	10	→ F20	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			2	GNDM-JE	10	→ F22	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			2	GNDL	20	→ F24	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			2	GNDL-JE	20	→ F26	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			3	GNDS	6	→ F18	◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDM	12	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDM-JE	12	→ F22	◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDL	20	→ F24	○ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
	20	20	3	GNDL-JE	20	→ F26	○ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
	25	25	4	GNDS	10	→ F18	◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			4	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			4	GNDM-JE	18	→ F22	◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			4	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			4	GNDL-JE	25	→ F26	○ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ◎
			5 6	GNDS	10	→ F18	◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			5 6	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			5 6	GNDM-JE	18	→ F22	◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			5 6	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			5 6	GNDL-JE	25	→ F26	○ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			7 8	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			7 8	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ◎ ○ ◎
	32	25*	3	GNDM	12	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			3	GNDL	20	→ F24	○ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			4	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎
			4	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎
	32	32	5 6	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			5 6	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ○ ◎ ○ ◎ ◎
			7 8	GNDM	18	→ F20	◎ ◎ ◎ ◎ ◎ ◎ ○ ◎
			7 8	GNDL	25	→ F24	○ ◎ ◎ ◎ ◎ ◎ ○ ◎

■ Stock　　* Make to order item (32x25mm)　　◎ 1st Recommendation　　○ 2nd Recommendation

GND Type

For External Machining (L Type)

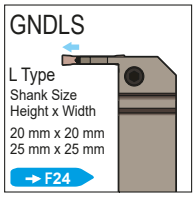
Turning / Profiling



Grooving Width (mm)		
1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA

Grooving / Cut-Off



Grooving Width (mm)		
1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA

■ Series for External Machining (L Type)

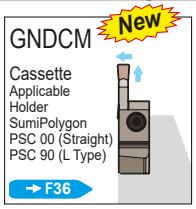
Type	Shank Size Height	Shank Size Width	Cutting Width (mm)	Series	Max. Grooving Depth (mm)	Ref. Page	Applicable Chipbreaker MG	ML	GG	GL	GF	CG	CF (New)	RG	RN	GA
L Type	20	20	2	GNDLS	16	→ F24		○	◎	◎	◎	◎	◎		◎	◎
			3	GNDMS	10	→ F20	◎	◎	○	○	○	○	○	◎	○	○
			3	GNDLS	16	→ F24	○	○	◎	◎	◎	◎	◎	○	○	○
			4	GNDMS	12	→ F20	◎	◎	○	○	○	○		◎	○	○
			5	GNDMS	12	→ F20	◎	◎	○	○	○			◎	○	○
	25	25	2	GNDLS	18	→ F24		○	◎	◎	◎	◎	◎		◎	◎
			3	GNDMS	12	→ F20	◎	◎	○	○	○	○	○	◎	○	○
			3	GNDLS	18	→ F24	○	○	◎	◎	◎	◎	◎	○	○	○
			4	GNDMS	14	→ F20	◎	◎	○	○	○	○		◎	○	○
			4	GNDLS	23	→ F24	○	○	◎	◎	◎	◎		◎	○	○
			5 6	GNDMS	14	→ F20	◎	◎	○	○	○			◎	○	○
			5 6	GNDLS	23	→ F24	○	○	◎	◎	◎			◎	○	○

Stock

◎ 1st Recommendation ○ 2nd Recommendation

Cassettes for Radial Machining

Grooving



Grooving Width (mm)		
1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA

■ Radial Grooving Cassettes

Type	Applicable Holders	Cutting Width (mm)	Series	Max. Grooving Depth (mm)	Ref. Page	Applicable Chipbreaker MG	ML	GG	GL	GF	CG	CF (New)	RG	RN	GA
Cassette	GND00	2	GNDCM	12	→ F36		○	◎	◎	◎	◎	◎	◎	◎	○
		3	GNDCM	12		◎	◎	○	○	○	○	○	◎	○	○
	GND90	4	GNDCM	18		◎	◎	○	○	○	○	○		◎	○
		5 6	GNDCM	18		◎	◎	○	○	○	○			◎	○

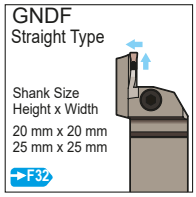
Stock

◎ 1st Recommendation ○ 2nd Recommendation

GND Type

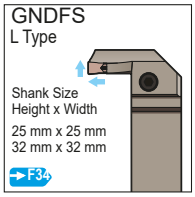
For Face Machining

Grooving / Turning / Profiling



Grooving Width (mm)		
1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA



Grooving Width (mm)		
1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker: MG ML GG GL GF CG CF RG RN GA

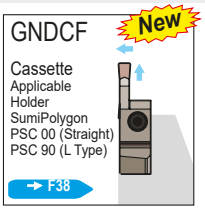
■ Series for Face Machining

Type	Shank Size Height	Shank Size Width	Cutting Width (mm)	Series	Max. Grooving Depth (mm)	Bore (mm)	Ref. Page	Applicable Chipbreaker
Straight Type	20	20	3	GNDF	12	ø35 ø45	→ F32	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		12	ø40 ø55		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		18	ø50 ø70		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		18	ø65 ø100		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		18	ø90 ø150		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		18	ø140 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			3		18	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4	GNDF	18	ø40 ø55	→ F32	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø50 ø70		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø65 ø90		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø85 ø130		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø125 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			4		23	ø280 ø1.000		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5	GNDF	23	ø50 ø70	→ F32	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5		23	ø65 ø90		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5		23	ø85 ø130		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5		23	ø125 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5		23	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			5		23	ø280 ø1.000		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6	GNDF	23	ø50 ø75	→ F32	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		23	ø70 ø110		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		23	ø100 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		23	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		23	ø280 ø1.000		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
L Type	20	20	6	GNDFS	20	ø70 ø100	→ F34	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		20	ø100 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		20	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		20	ø280 ø1.000		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			6		20	ø450~		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
	25	25	8	GNDFS	20	ø70 ø100	→ F34	◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			8		20	ø100 ø200		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			8		20	ø180 ø300		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			8		20	ø280 ø1.000		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎
			8		20	ø450~		◎ ◎ ○ ◎ ◎ ○ ○ ○ ◎ ◎

Stock Make to order item ◎ 1st Recommendation ○ 2nd Recommendation

Cassettes for Face Machining

Face Grooving / Turning / Profiling



Grooving Width (mm)

1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker

MG ML GG GL GF CG CF RG RN GA

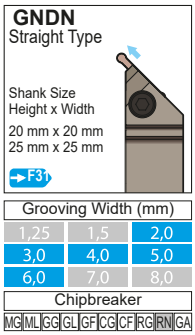
■ Face Grooving Cassettes

Type	Cutting Width (mm) 3	4	5	6	7	8	Series	Max. Grooving Depth (mm) 5 10 15 20 25 30	Bore (mm) 50 100 150 200 250 300 1.000	Ref. Page	Applicable Chipbreaker MG	ML	GG	GL	GF	CG	CF	RG	RN	GA
Straight Type	3						GNDCF R/L	12	ø40 ø55	→ F38	◎	○	◎	○	○				○	◎
	3							15	ø50 ø75		◎	○	◎	○	○				○	◎
	3							15	ø65 ø100		◎	○	◎	○	○				○	◎
	3							18	ø90 ø150		◎	○	◎	○	○				○	◎
	3							18	ø140 ø200		◎	○	◎	○	○				○	◎
		4						18	ø40 ø55		◎	○	◎	○	○				○	◎
		4						18	ø50 ø70		◎	○	◎	○	○				○	◎
		4						18	ø65 ø90		◎	○	◎	○	○				○	◎
		4						18	ø85 ø130		◎	○	◎	○	○				○	◎
		4						18	ø125 ø200		◎	○	◎	○	○				○	◎
		4						18	ø180 ø300		◎	○	◎	○	○				○	◎
			5					18	ø50 ø70		◎	○	◎	○	○				○	◎
			5					18	ø65 ø90		◎	○	◎	○	○				○	◎
			5					18	ø85 ø130		◎	○	◎	○	○				○	◎
			5					18	ø125 ø200		◎	○	◎	○	○				○	◎
			5					18	ø180 ø300		◎	○	◎	○	○				○	◎
				6				18	ø50 ø75		◎	○	◎	○	○				○	◎
				6				18	ø70 ø110		◎	○	◎	○	○				○	◎
				6				18	ø100 ø200		◎	○	◎	○	○				○	◎
				6				18	ø180 ø300		◎	○	◎	○	○				○	◎
				6				18	ø280 ø1.000		◎	○	◎	○	○				○	◎

Stock Make to order item ◎ 1st Recommendation ○ 2nd Recommendation

GND Type

For Necking



Series for Necking

Type	Shank Size		Cutting Width (mm) 2	3	4	5	6	Series	Max. Grooving Depth (mm) 5 10 15 20 25 30	Min. Bore (mm)	Ref. Page	Applicable Chipbreaker MG	ML	GG	GL	GF	CG	CF	RG	RN	GA
Straight Type	20	20	2					GNDN	2,0	ø20	→ F31									◯	
				3					2,5	ø20										◯	
	25	25			4				3,0	ø30										◯	
						5			3,5	ø30										◯	
							6		4,0	ø30										◯	

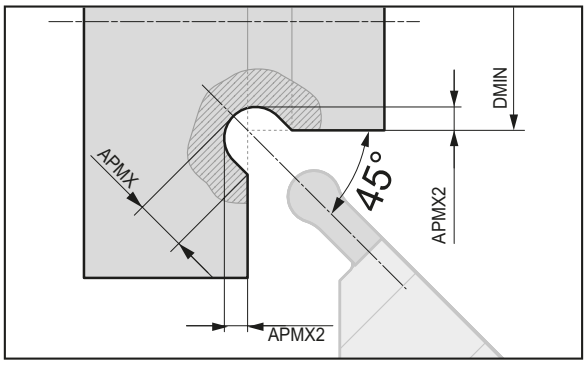
Stock

Tips for Necking

Notes for Undercutting

Recommended Chipbreaker: **RN**

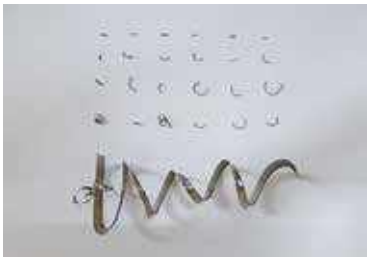
Distance between Workpiece and Necking

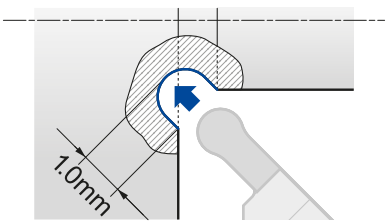


Edge Width CW (mm)	Depth of Necking APMX (mm)	Distance between Workpiece and Necking APMX2 (mm)
2,0	1,50	0,64
3,0	2,00	0,79
4,0	3,00	1,29
5,0	3,50	1,44
6,0	4,00	1,59

The recommended cutting conditions for necking are the same as grooving with RN type chipbreaker and edge width.
To prevent interference with the work material, do not use the holder for less than the minimum cutting diameter (DMIN) as specified for GNGN type holders.

Chip Shape



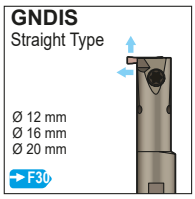


Work Material:	34CrMo4
Holder:	GNDN R2020K 325-020
Insert:	GCM N3015 RN
Cutting Conditions:	v_c = 100m/min, f = 0,1mm/rev
	Depth of Necking = 1,0mm, wet

GND Type

For Internal Machining (≥ Ø 14 mm ~)

Grooving / Turning / Copying



Grooving Width (mm)

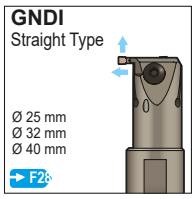
1,5	2,0	3,0

Chipbreaker

ML	GF

For Internal Machining (≥ Ø 32 mm ~)

Grooving / Turning / Copying



Grooving Width (mm)

1,25	1,5	2,0
3,0	4,0	5,0
6,0	7,0	8,0

Chipbreaker

MG	ML	GG	GL	GF	CG	CF	RG	RN	GA

■ Series for Internal Machining (≥ Ø 14 mm ~)

Type	Shank Size ØDs(mm)	Cutting Width (mm) 1,5	2	3	Series	Max. Grooving Depth (mm) 5 10 15 20 25 30	Min. Bore (mm)	Ref. Page	Applicable Chipbreaker ML	GF
Straight Type	ø12	1,5			GNDIS	2,6	ø14	→ F30		◎
		1,5				3,6	ø14			◎
			2	3		2,6	ø14		◎	◎
			2	3		3,6	ø14		◎	◎
	ø16	1,5			GNDIS	3,6	ø16			◎
		1,5				4,6	ø20			◎
			2	3		3,6	ø16		◎	◎
			2	3		4,6	ø20		◎	◎
	ø20	1,5			GNDIS	6,6	ø25			◎
			2	3		6,6	ø25		◎	◎

Stock

GNDIS type: use smaller GXM type inserts

◎ 1st Recommendation

■ Series for Internal Machining (≥ Ø 32 mm ~)

Type	Shank Size ØDs(mm)	Cutting Width (mm) 2	3	4	5	6	Series	Max. Grooving Depth (mm) 5 10 15 20 25 30	Min. Bore (mm)	Ref. Page	Applicable Chipbreaker MG	ML	GG	GL	GF	CG	CF	RG	RN	GA
Straight Type	ø25	2					GNDI	6	ø32	→ F28		◎	○	◎	◎				◎	◎
			3	4	5			6	ø32		○	◎	○	◎	◎				◎	◎
	ø32	2						6	ø32			◎	○	◎	◎				◎	◎
			3	4	5			10	ø40		○	◎	○	◎	◎				◎	◎
	ø40		3	4	5	6		11	ø50		○	◎	○	◎	◎				◎	◎

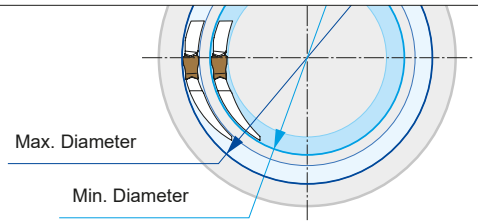
Stock

◎ 1st Recommendation

○ 2nd Recommendation

Key Points for Face Machining

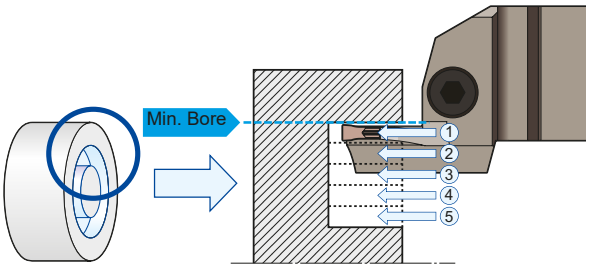
Holder Selection



Select a holder so that the outer diameter of the first groove to be machined comes within the range of maximum and minimum grooving diameter of the holder.

Precautions for Groove Expansion

Recommended Chipbreaker: **MG, ML, GG, GL, GF**



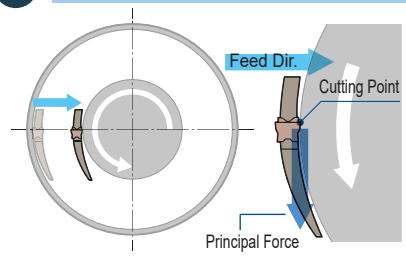
If the first groove meets the range of the effective grooving diameter during groove expansion, the grooving diameter will not be limited for the second and later passes.

Precautions for Turning

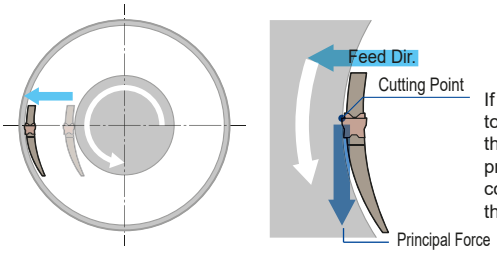
Recommended Chipbreaker: **MG, ML**

Considering the rigidity of the holder, we recommend machining from the outside to the inside.

O Outer Side → Inner Side



× Not Recommended: Inner Side → Outer Side



If machining is performed toward the outside, the wall thickness remaining on the principal force side will become thinner, which reduces the rigidity of the holder.

- If the first groove meets the range of the effective grooving diameter in face turning, the grooving diameter will not be limited for the second and later passes.
- Select the chipbreaker of the lower limit side of the recommended cutting conditions and straight chips before evacuation. (In face grooving, broken chips easily get stuck in grooves, which causes problems.)
- When breaking chips, step feed is required.

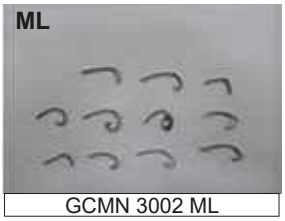
Key Points for Internal Machining

Precautions for Internal Machining

Recommended Chipbreaker: **ML, GL**

If the prepared hole diameter is small, use an ML or GL low-feed chipbreaker, each of which reduces chip curl diameter, to ensure adequate chip evacuation.

GCMN 3004 MG



GCMN 3002 ML

GCMN 3002 GG

GCMN 3002 GL

Work Material:	15CrMo5 (Ø 25 mm)
Holder:	GNDI R2532 T306
Insert:	GCM N300□-□□
Cutting Conditions:	v_c=100 m/min, f=0,10 mm/rev, a_p=3,0 mm, wet

Internal Machining

GCMN 3002 GG

External Machining

GCMN 3002 GG

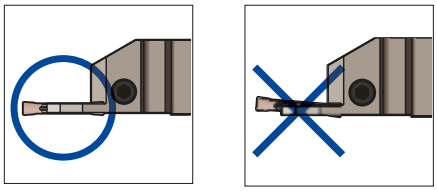
⚠ Chip shapes differ between internal and external machining even under the same cutting conditions.

Work Material:	15CrMo5
Holder:	GNDL R2525M 320
Insert:	GCM N3002 GG
Cutting Conditions:	v_c=100 m/min, f=0,10 mm/rev, a_p=5 mm, wet

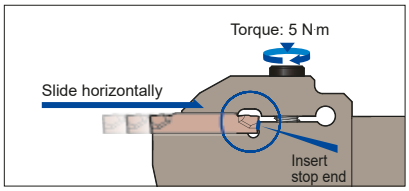
■ Notes on how to Attach Inserts

① Remove any foreign particles or oil from the insert seat before attaching the insert.
② Ensure the seat location is clean and free of damage.
③ Slide the insert level over its seat.
④ Push the insert with its opposite end (the holder side) firmly against the insert stop end.
⑤ The recommended tightening torque is 5 N·m. Tightening above the recommended torque may damage the insert or the holder which could cause injury and other accidents.

③ Attach insert on the seat flat.



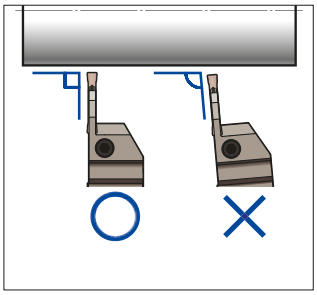
④ Push insert fully into place.



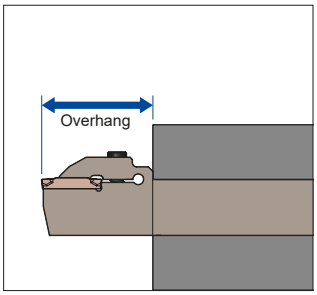
■ Notes on how to Apply Holders

① Remove any foreign particles or oil from the tool post before attaching the holder.
② Ensure the seat location is clean and free of damage.
③ Attach the holder so that the insert is perpendicular to the workpiece.
④ Set holder with shortest possible overhang.
⑤ When grooving or turning, adjust the center height of the cutting edge to as close ±0 mm as possible. (Within ±0,1 mm is recommended)
⑥ Incorrect center height adjustment may cause chattering. (In cut-off applications, adjust the center height of the cutting edge to a value from 0,0 to +0,2 mm).
A lower center height will result in larger nip at the center.

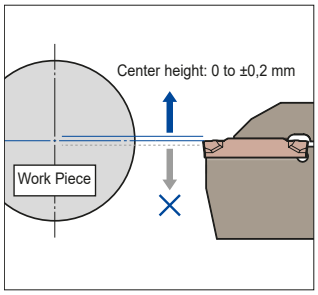
③ Attach at right angle to workpiece.



④ Set with short overhang

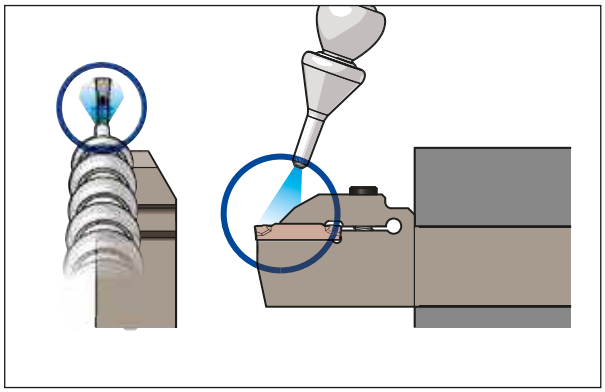


⑥ Center height adjustment in cut-off applications



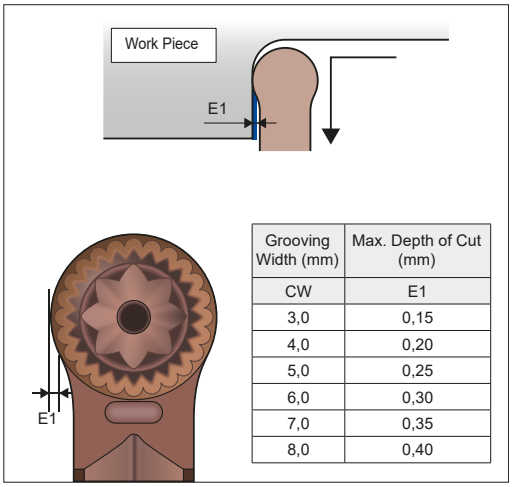
■ Notes on Setting Coolant Supply Nozzle

Set the coolant supply nozzle so that coolant can be supplied from the top of the upper clamp unit.



■ Maximum Depth of Cut

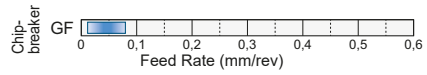
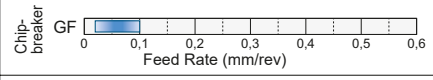
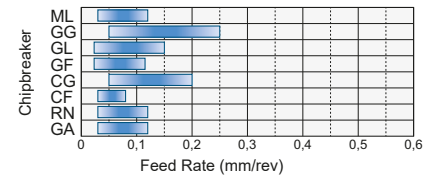
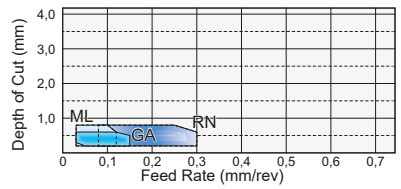
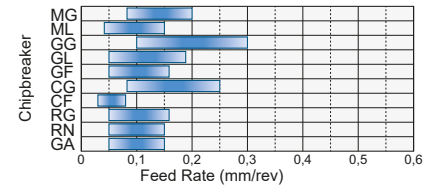
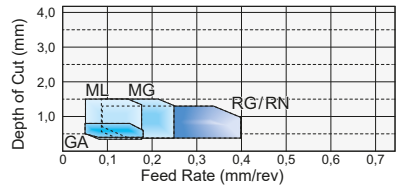
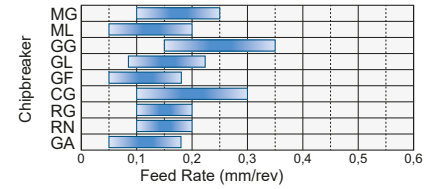
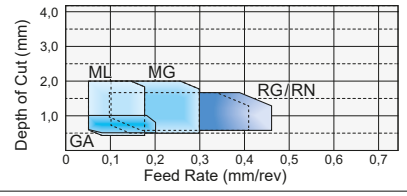
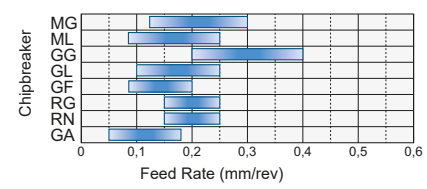
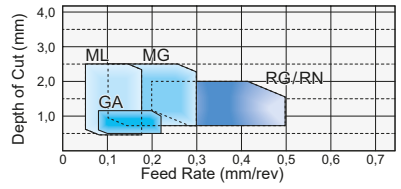
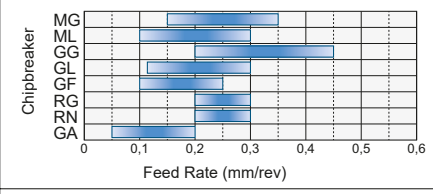
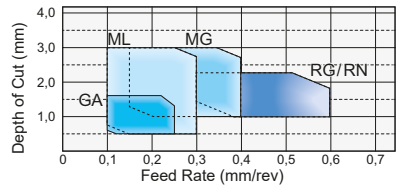
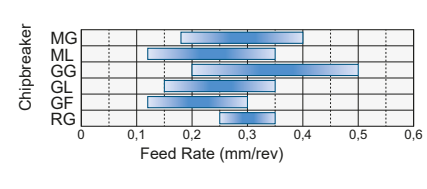
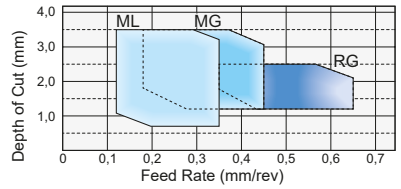
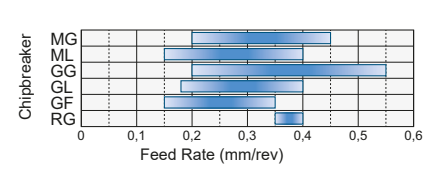
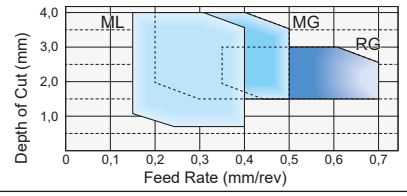
Maximum depth of cut when pulling up with RG chipbreaker



Grooving Width (mm)	Max. Depth of Cut (mm)
CW	E1
3,0	0,15
4,0	0,20
5,0	0,25
6,0	0,30
7,0	0,35
8,0	0,40

GND Type

■ Chipbreaker Selection Guide

Groov. Width (mm)	Recommended Cutting Conditions		Nose Radius (mm)	Inserts
	Grooving	Turning		
1,25			0,05	GCM N125005-GF
1,5			0,05	GCM N150005-GF
2,0			0,02 0,2 1,0	GCM R/L20002-CF-10 GCM R/L20002-CF-15 GCM N2002-ML GCM N2002-GG GCM N2002-GL GCM N2002-GF GCM R/L2002-CG-05 GCG N2002-GA GCM N2010-RN
3,0			0,02 0,2 0,4 1,5	GCM R/L30002-CF-10 GCM R/L30002-CF-15 GCM N3002-ML GCM N3002-GG GCM N3002-GL GCM N3002-GF GCM R/L3002-CG-05 GCG N3002-GA GCM N3004-MG GCM N3004-GG GCM N3015-RG GCM N3015-RN
4,0			0,2 0,4 0,8 2,0	GCM N4002-GG GCM N4002-GL GCM N4002-GF GCM R/L4002-CG-05 GCM N4004-ML GCM N4004-GG GCG N4004-GA GCM N4008-MG GCM N4020-RG GCM N4020-RN
5,0			0,2 0,4 0,8 2,5	GCM N5002-GG GCM N5002-GL GCM N5002-GF GCM N5004-ML GCM N5004-GG GCG N5004-GA GCM N5008-MG GCM N5025-RG GCM N5025-RN
6,0			0,2 0,4 0,8 3,0	GCM N6002-GG GCM N6002-GL GCM N6002-GF GCM N6004-ML GCM N6004-GG GCG N6004-GA GCM N6008-MG GCM N6030-RG GCM N6030-RN
7,0			0,2 0,4 0,8 3,5	GCM N7002-GF GCM N7004-ML GCM N7004-GG GCM N7004-GL GCM N7004-GF GCM N7008-MG GCM N7035-RG
8,0			0,2 0,4 0,8 4,0	GCM N8002-GF GCM N8004-ML GCM N8004-GG GCM N8004-GL GCM N8004-GF GCM N8008-MG GCM N8040-RG

■ Recommended Cutting Conditions

Work Material	P Carbon Steel, Alloy Steel				M Stainless Steel			K Cast Iron			S Exotic Alloy		N
Grade	AC830P	AC520U	AC530U AC1030U	T2500A	AC830P	AC520U	AC530U AC1030U	AC425K	AC520U	AC530U AC1030U	AC520U	AC530U AC1030U	H10
Cutting Speed (m/min)	80–200	80–200	50–200	50–200	70–150	70–150	50–150	80–200	60–200	50–200	20–80	20–60	150–300

GND Type

■ Identification Details – Holders

GND M R 25 25 (M) - (T) 3 12 (JE) (- 0 3 5)

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Series Symbol: GND	Application: Chart 2	Holder Design: Chart 3	Shank Height / Dia.: Chart 4	Shank Width / Work Dia.: Chart 5	Shank Length: Chart 6	Type: Internal Grooving	Insert Width: Chart 7	Max. Grooving Depth: Chart 8	Coolant Supply: JE: Internal Coolant	Min. Machining Dia.: (mm)

② Application

Symbol	Application	
S	External Multi-Purpose	Grooving / Cut Off / Turning / Profiling
M	External Multi-Purpose	Grooving / Cut Off / Turning / Profiling
L	External Grooving	Grooving / Cut Off
MS	External L-Styled (Side Cut) Multi-Purpose	Grooving / Turning / Profiling
LS	External L-Styled (Side Cut) Deep Grooving	Grooving
N	Necking	Necking
I	Internal Grooving	Grooving / Turning / Profiling
IS	Internal Grooving	Grooving / Turning / Profiling
F	Face Grooving	Grooving / Turning / Profiling
FS	L-Shaped Tools for Facing	Grooving / Turning / Profiling
CM	Cassette for Polygon Holder	Radial Grooving
CF	Cassette for Polygon Holder	Face Grooving

③ Holder Design

Symbol	Direction
R	Right
L	Left

④ Shank Height / Diameter

Application	Symbol	Height (mm)
External/ Face Grooving (Shank Height)	10	10
	12	12
	16	16
	20	20
	25	25
Internal Grooving (Shank Diameter)	25	25
	32	32
	40	40

⑤ Shank Width / Work Dia.

Application	Symbol	Width (mm)
External/ Face Grooving (Shank Width)	10	10
	12	12
	16	16
	20	20
	25	25
Internal Grooving (Shank Diameter)	32	32
	40	40
	50	50

⑥ Shank Length

Symbol	Length (mm)
JX	120
K	125
M	150
P	170

⑧ Insert Width

Symbol	Groov. Width (mm)
1,25	1,25
1,5	1,5
2	2,0
3	3,0
4	4,0
5	5,0
6	6,0
7	7,0
8	8,0

⑨ Max. Grooving Depth

Symbol	Groov. Depth (mm)	Symbol	Groov. Depth (mm)
06	6,0	20	20,0
08	8,0	23	23,0
10	10,0	25	25,0
11	11,0		
12	12,0		
12,5	12,5		
14	14,0		
16	16,0		
18	18,0		

To ensure maximum rigidity, use the multi-purpose type holder to machine the maximum grooving depth.

■ Identification Details – Inserts

G C M N 30 02 (S) - G G - (05)

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Series Symbol: **G**rooving	Front Relief Angle: **C**: 7°; X: Special	Tolerance: G Class; **M** Class	Insert Design: **N** Neutral; R Right Hand; L Left Hand	Insert Width	Nose Radius	Applicable Holder	Chipbreaker	Front Cutt. Edge Angle

⑤ Insert Width

Symbol	Groov. Width (mm)
125	1,25
150	1,5
20	2,0
30	3,0
40	4,0
50	5,0
60	6,0
70	7,0
80	8,0

⑥ Nose Radius

Symbol	R (mm)
005	0,05
02	0,2
04	0,4
08	0,8
15	1,5
20	2,0
25	2,5
30	3,0

⑦ Applicable Holder

Symbol	Holder
S	GNDIS

⑧ Chipbreaker

Symbol	Application
MG	Multi-Purpose: General Feed
ML	Multi-Purpose: Low Feed
GG	Grooving: General Feed
GL	Grooving: Low Feed
GF	Grooving: Low Cutting Forces
CG	Cut-Off
CF	Cut-Off: Low Cutting Forces
RG	Copying: General Feed
RN	Multi-Purpose: General Feed
GA	Multi-Purpose: General Feed

⑨ Front Cutt. Edge Angle

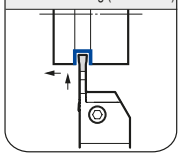
PSI
05 : 5°
10 : 10°
15 : 15°

GNDM /GNDL Type

External Multi-Purpose Small Tools Type (Grooving, Turning, Profiling)

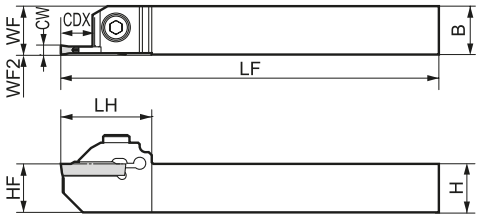
GNDM

External Grooving (Small Tools)



External

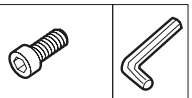
Cut-Off



Use the multi-purpose profiling insert for turning (wide grooves).

Above figures show right hand tools.

Spare Parts



Holders

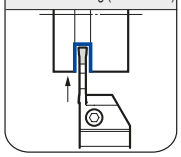
Cat. No.	Stock		Dimensions (mm)							Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Applicable Insert	Cap Screw	N·m	Span-ner
	R	L	H	B	LF	WF	HF	LH	WF2	CW	CDX					
GNDM R/L 1616 JX 1.2508	●	●	16	16	120	(16)	16	26	0	1,25	8,0	16	GCM N125005 GF	BX0515	4,0	LH040
GNDM R/L 1616 JX 1.510	❍	❍	16	16	120	(16)	16	26	0	1,50	10,0	20	GCM N150005 GF			
GNDM R/L 1616 JX 212	❍	❍	16	16	120	(16)	16	30	0	2,00	12,0	24	GCM □20○○-□□			
GNDM R/L 1616 JX 312	❍	❍	16	16	120	(16)	16	30	0	3,00	12,0	24	GCM □30○○-□□			

Select holders and inserts with the same grooving width (CW).

External Grooving / Cut-Off Small Tools

GNDL

External Grooving (Small Tools)



External

Cut-Off

Fig. 1

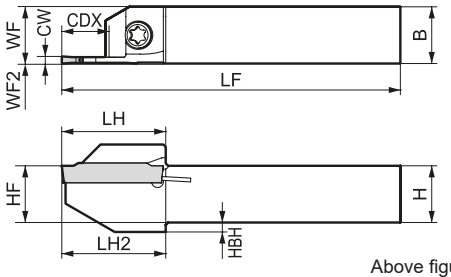
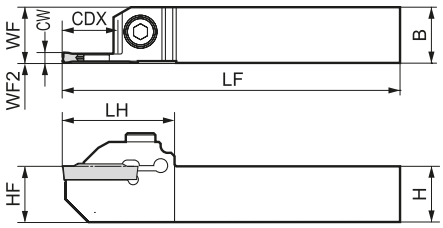
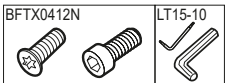


Fig. 2



Above figures show right hand tools.

Spare Parts



Holders

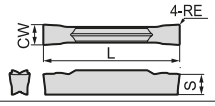
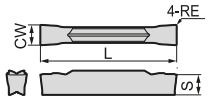
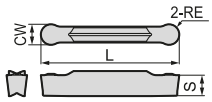
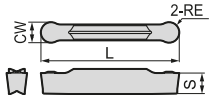
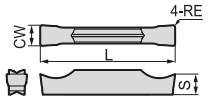
Cat. No.	Stock		Dimensions (mm)									Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Fig.	Applicable Insert	Cap Screw	N·m	Span-ner
	R	L	H	B	LF	WF	HF	HBH	LH	LH2	WF2	CW	CDX						
GNDL R/L 1010 JX 1.2510	●	●	10	10	120	(10)	10	2,0	18	18,3	0	1,25	10,0	20		GCM N125005 GF	BFTX0412N	**3,0**	LT15-10
GNDL R/L 1010 JX 1.510	●	●	10	10	120	(10)	10	2,0	18	18,3	0	1,50	10,0	20		GCM N150005 GF			
GNDL R/L 1010 JX 210	●	●	10	10	120	(10)	10	2,0	22	22,3	0	2,00	10,0	20	1	GCM □20○○-□□			
GNDL R/L 1010 JX 310	●	●	10	10	120	(10)	10	2,0	22	22,3	0	3,00	10,0	20		GCM □30○○-□□			
GNDL R/L 1212 JX 1.2512	●	●	12	12	120	(12)	12	2,0	19	19,3	0	1,25	12,0	24		GCM N125005 GF	BFTX0412N	**3,0**	LT15-10
GNDL R/L 1212 JX 1.512	●	●	12	12	120	(12)	12	2,0	19	19,3	0	1,50	12,0	24		GCM N150005 GF			
GNDL R/L 1212 JX 212.5	●	●	12	12	120	(12)	12	2,0	22	22,3	0	2,00	12,5	25	1	GCM □20○○-□□			
GNDL R/L 1212 JX 312.5	●	●	12	12	120	(12)	12	2,0	22	22,3	0	3,00	12,5	25		GCM □30○○-□□			
GNDL R/L 1616 JX 1.2512.5	●	●	16	16	120	(16)	16		28		0	1,25	12,5	20		GCM N125005 GF	BFTX0515	**4,0**	LH040
GNDL R/L 1616 JX 1.512.5	●	●	16	16	120	(16)	16		28		0	1,50	12,5	25		GCM N150005 GF			
GNDL R/L 1616 JX 216	●	●	16	16	120	(16)	16		32		0	2,00	16,0	32	2	GCM □20○○-□□			
GNDL R/L 1616 JX 316	●	●	16	16	120	(16)	16		32		0	3,00	16,0	32		GCM □30○○-□□			

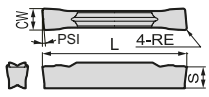
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

■ Inserts for GNDM (Small Tools) / GNGL (Small Tools)

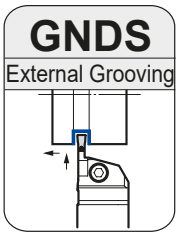
Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		General Purpose	GCM N3004 MG	●	●	❍	●			**3,0**	±0,03	0,4	21,1	3,8
		Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
Copying / Cut-Off		General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N3004 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
		Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			M3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
		Low Cutting Force	GCM N125005 GF				●			1,25	±0,03	0,05	17,4	3,2
			N150005 GF				●			1,5	±0,03	0,05	17,4	3,7
			N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
Copying		General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
Face / Necking		General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
Non Ferrous Metals		General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8

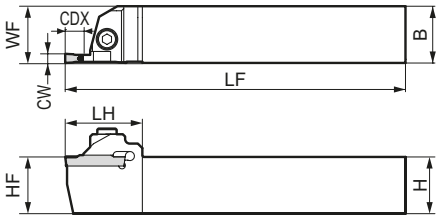
Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	Cermet R	Cermet L	PSI	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,04	0,2	26,7	4,0
Cut-Off		Low Cutting Force	New GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

Select holders and inserts with the same grooving width (CW).

GNDS Type

External Multi-Purpose Shallow Grooves Type (Grooving, Turning, Profiling)





Use the multi-purpose profiling insert for turning (wide grooves).

Above figures show right hand tools.

Spare Parts

Holders

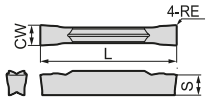
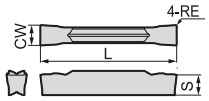
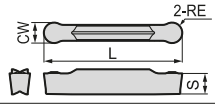
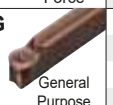
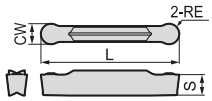
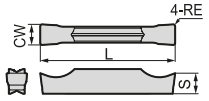
Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	CW	CDX				
GNDS R/L 2020 K 206	❍	❍	20	20	125	20	20	30	2,0	6	GCM □20○○-□□	BX0520	5,0	LH040
GNDS R/L 2020 K 306	❍	❍	20	20	125	20	20	30	3,0	6	GCM □30○○-□□			
GNDS R/L 2020 K 410	❍	❍	20	20	125	20	20	34	4,0	10	GCM □40○○-□□			
GNDS R/L 2020 K 510	❍	❍	20	20	125	20	20	34	5,0	10	GCM N50○○-□□			
GNDS R/L 2020 K 610	❍	❍	20	20	125	20	20	34	6,0	10	GCM N60○○-□□			
GNDS R/L 2525 M 206	❍	❍	25	25	150	25	25	30	2,0	6	GCM □20○○-□□			
GNDS R/L 2525 M 306	❍	❍	25	25	150	25	25	30	3,0	6	GCM □30○○-□□			
GNDS R/L 2525 M 410	❍	❍	25	25	150	25	25	34	4,0	10	GCM □40○○-□□			
GNDS R/L 2525 M 510	❍	❍	25	25	150	25	25	34	5,0	10	GCM N50○○-□□			
GNDS R/L 2525 M 610	❍	❍	25	25	150	25	25	34	6,0	10	GCM N60○○-□□			

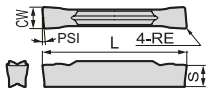
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

■ Inserts for GNDS

Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

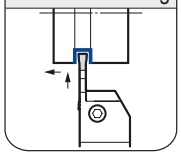
Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	Cermet R	Cermet L	PSI	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,03	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force	GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

Select holders and inserts with the same grooving width (CW).

GNDM / GNDMS Type

External Multi-Purpose Type (Grooving, Turning, Profiling)

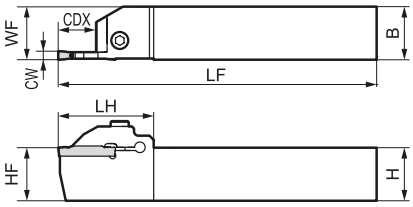
GNDM
External Grooving



External

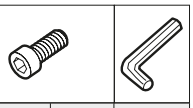
Cut-Off

Use for multi-purpose or profiling insert for turning (wide grooves).



Above figures show right hand tools.

Spare Parts



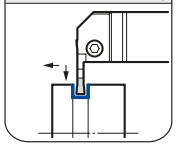
Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	CW	CDX					
GNDM R/L 2020 K 1.2510	●	●	20	20	125	20	20	34,0	1,25	10	20	GCM N125005 GF	BX0520	5,0	LH040
GNDM R/L 2020 K 1.510	●	●	20	20	125	20	20	34,0	1,50	10	20	GCM N150005 GF			
GNDM R/L 2020 K 210	○	○	20	20	125	20	20	33,6	2,00	10	20	GCM □20○○-□□			
GNDM R/L 2020 K 312	○	○	20	20	125	20	20	36,6	3,00	12	24	GCM □30○○-□□			
GNDM R/L 2020 K 418	○	○	20	20	125	20	20	45,0	4,00	18	36	GCM □40○○-□□			
GNDM R/L 2020 K 518	●	○	20	20	125	20	20	45,0	5,00	18	36	GCM N50○○-□□			
GNDM R/L 2020 K 618	○	○	20	20	125	20	20	45,0	6,00	18	36	GCM N60○○-□□			
GNDM R/L 2525 M 1.2510	●	●	25	25	150	25	25	36,0	1,25	10	20	GCM N125005 GF			
GNDM R/L 2525 M 1.510	●	●	25	25	150	25	25	36,0	1,25	10	20	GCM N150005 GF			
GNDM R/L 2525 M 210	○	○	25	25	150	25	25	33,6	2,00	10	20	GCM N20○○-□□			
GNDM R/L 2525 M 312	○	○	25	25	150	25	25	36,6	3,00	12	24	GCM □30○○-□□			
GNDM R/L 2525 M 418	○	○	25	25	150	25	25	45,0	4,00	18	36	GCM □40○○-□□			
GNDM R/L 2525 M 518	○	○	25	25	150	25	25	45,0	5,00	18	36	GCM N50○○-□□			
GNDM R/L 2525 M 618	●	○	25	25	150	25	25	45,0	6,00	18	36	GCM N60○○-□□			
GNDM R/L 3225 P 312			32	25	170	25	32	36,6	3,00	12	24	GCM □30○○-□□			
GNDM R/L 3225 P 418			32	25	170	25	32	45,0	4,00	18	36	GCM □40○○-□□			
GNDM R/L 3225 P 518			32	25	170	25	32	45,0	5,00	18	36	GCM N50○○-□□			
GNDM R/L 3225 P 618			32	25	170	25	32	45,0	6,00	18	36	GCM N60○○-□□			
GNDM R/L 3225 P 718			32	25	170	25	32	50,0	7,00	18	36	GCM N70○○-□□	BX0620	6,0	LH050
GNDM R/L 3225 P 818			32	25	170	25	32	50,0	8,00	18	36	GCM N80○○-□□			
GNDM R/L 3232 P 312	●	●	32	32	170	32	32	36,6	3,00	12	24	GCM □30○○-□□	BX0620	6,0	LH050
GNDM R/L 3232 P 418	●	●	32	32	170	32	32	45,0	4,00	18	36	GCM □40○○-□□			
GNDM R/L 3232 P 518	●	●	32	32	170	32	32	45,0	5,00	18	36	GCM N50○○-□□			
GNDM R/L 3232 P 618	●	●	32	32	170	32	32	45,0	6,00	18	36	GCM N60○○-□□			
GNDM R/L 3232 P 718	●	●	32	32	170	32	32	50,0	7,00	18	36	GCM N70○○-□□			
GNDM R/L 3232 P 818	●	●	32	32	170	32	32	50,0	8,00	18	36	GCM N80○○-□□			

Select holders and inserts with the same grooving width (CW).

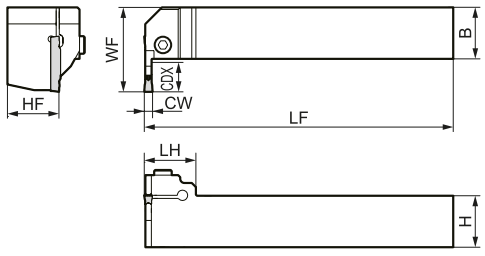
External L-Styled (Side Cut) Multi-Purpose Type (Grooving, Turning, Profiling)

GNDMS
External Grooving



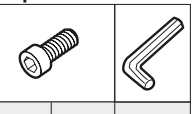
External

Use for multi-purpose or profiling insert for turning (wide grooves).



Above figures show right hand tools.

Spare Parts



Holders

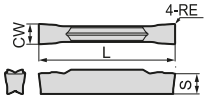
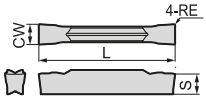
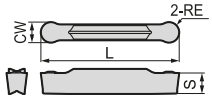
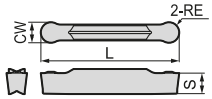
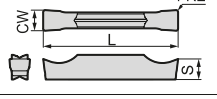
Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	CW	CDX				
GNDMS R/L 2020 K 310	●	●	20	20	125	32	20	25	3,0	10	GCM □30○○-□□	BX0520	5,0	LH040
GNDMS R/L 2020 K 412	●	●	20	20	125	34	20	25	4,0	12	GCM □40○○-□□			
GNDMS R/L 2020 K 512	●	●	20	20	125	34	20	25	5,0	12	GCM N50○○-□□			
GNDMS R/L 2525 M 312	●	●	25	25	150	39	25	25	3,0	12	GCM □30○○-□□			
GNDMS R/L 2525 M 414	●	●	25	25	150	41	25	25	4,0	14	GCM □40○○-□□			
GNDMS R/L 2525 M 514	●	●	25	25	150	41	25	25	5,0	14	GCM N50○○-□□			
GNDMS R/L 2525 M 614	●	●	25	25	150	41	25	25	6,0	14	GCM N60○○-□□			

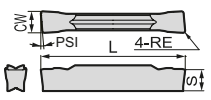
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

■ Inserts for GNDM / GNDMS

Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
			N7008 MG	❍	●	❍	●			7,0	±0,04	0,8	28,75	5,5
			N8008 MG	●	●	❍	●			8,0	±0,04	0,8	28,75	6,0
		ML  Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
			N7004 ML	●	●	❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 ML	❍	●	❍	●			8,0	±0,04	0,4	28,75	6,0
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
			N7004 GG	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GG	●		❍	●			8,0	±0,04	0,4	28,75	6,0
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			N7004 GL	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GL	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
		GF  Low Cutting Force	GCM N125005 GF				●			1,25	±0,03	0,05	17,4	3,2
			N150005 GF				●			1,5	±0,03	0,05	17,4	3,7
			N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
			N7002 GF	❍		❍	●			7,0	±0,04	0,2	28,75	5,5
			N8002 GF	❍		❍	●			8,0	±0,04	0,2	28,75	6,0
			GCM N7004 GF	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GF	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
			N7035 RG	❍	●	❍	●			7,0	±0,04	3,5	29,05	5,5
			N8040 RG	❍	●	❍	●			8,0	±0,04	4,0	29,25	6,0
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	R	L	Dimensions (mm) PSI	CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,04	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force	GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

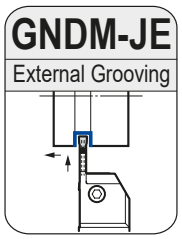
Select holders and inserts with the same grooving width (CW).

GNDM-JE Type

New

Holder with Internal Coolant

External Multi-Purpose Type (Grooving, Turning, Profiling)

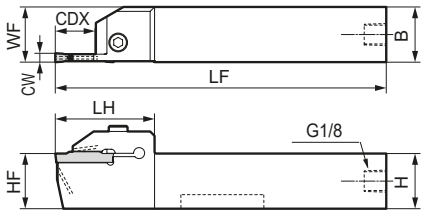


External

Internal Coolant

Cut-Off

Use for multi-purpose or profiling insert for turning (wide grooves).



Above figures show right hand tools.

Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Applicable Insert	Cap Screw	N·m	Plug and Sealing	Grub Screw*	Span-ner
	R	L	H	B	LF	WF	HF	LH	CW	CDX							
GNDM R/L 2020 X 210 JE	●	●	20	20	100	20	20	33,6	2,00	10	20	GC□ □20○○-□□	BX0520	6,0	XP02-E	BT0505-E	LH040
GNDM R/L 2020 X 312 JE	●	●	20	20	100	20	20	36,6	3,00	12	24	GC□ □30○○-□□					
GNDM R/L 2020 X 418 JE	●	●	20	20	110	20	20	45,0	4,00	18	36	GC□ □40○○-□□					
GNDM R/L 2020 X 518 JE	●	●	20	20	110	20	20	45,0	5,00	18	36	GC□ N50○○-□□					
GNDM R/L 2020 X 618 JE	●	●	20	20	110	20	20	45,0	6,00	18	36	GC□ N60○○-□□					
GNDM R/L 2525 X 210 JE	●	●	25	25	100	25	25	33,6	2,00	10	20	GC□ □20○○-□□					
GNDM R/L 2525 X 312 JE	●	●	25	25	100	25	25	36,6	3,00	12	24	GC□ □30○○-□□					
GNDM R/L 2525 X 418 JE	●	●	25	25	110	25	25	45,0	4,00	18	36	GC□ □40○○-□□					
GNDM R/L 2525 X 518 JE	●	●	25	25	110	25	25	45,0	5,00	18	36	GC□ N50○○-□□					
GNDM R/L 2525 X 618 JE	●	●	25	25	110	25	25	45,0	6,00	18	36	GC□ N60○○-□□					

Select holders and inserts with the same grooving width (CW).

*Grub screws are sold separately (M5x5)

Spare Parts

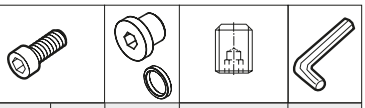


Fig. 1

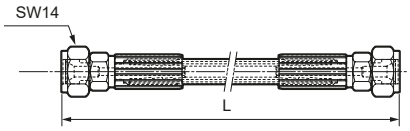


Fig. 1

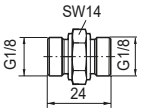


Fig. 2

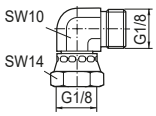
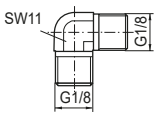


Fig. 3



Parts (Hose)

Cat. No.	Stock	L (mm)	Screw Stan-dard	Screw Stan-dard	Fig.
J-HOSE-G1/8-G1/8-200-E	●	200	G1/8	G1/8	1
J-HOSE-G1/8-G1/8-300-E	●	300	G1/8	G1/8	1

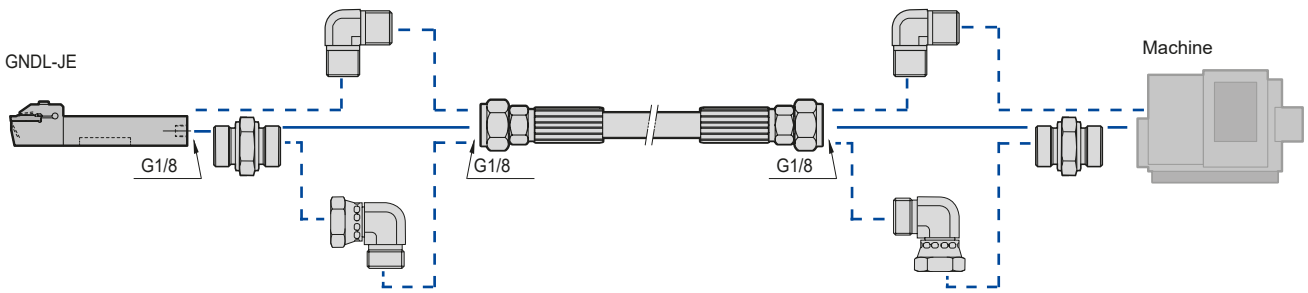
Hoses are sold separately.

Parts (Connector)

Cat. No.	Stock	Screw Stan-dard	Screw Stan-dard	Fig.
J-G1/8-G1/8-00-E	●	G1/8	G1/8	1
J-G1/8-G1/8F-90-E	●	G1/8	G1/8	2
J-G1/8-G1/8-90-E	●	G1/8	G1/8	3

Connectors are sold separately.

Piping Method for Hoses and Connectors



Apply sealant such as commercial sealing tape to the piping connection parts.
GNDM-JE type holders have a plug (XP02-E) mounted on the holder back end at shipping. (see fig.1)
When piping from the holder back end, mount a grub screw (BT0505-E) on the bottom of the holder for use. (see fig. 2)

Fig. 1 Piping from bottom.

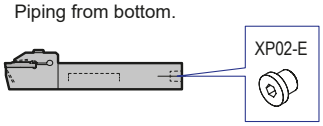
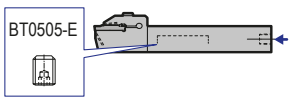


Fig. 2 Piping from back end.



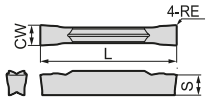
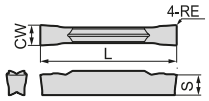
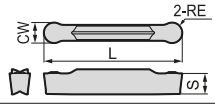
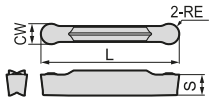
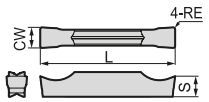
Grooving & Parting-Off

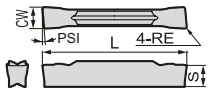
● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

GNDM-JE Type

■ Inserts for GNDM-JE

Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

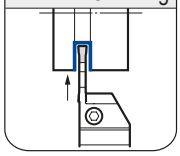
Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	Cermet R	Cermet L	PSI	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,03	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force	GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

Select holders and inserts with the same grooving width (CW).

GNDL / GNDLS Type

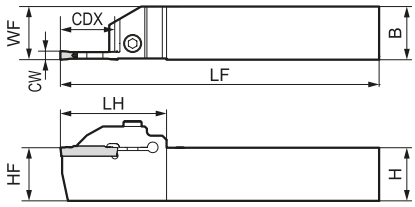
External Deep Grooving and Cut-Off

GNDL
External Grooving



External

Cut-Off



Above figures show right hand tools.

■ Spare Parts

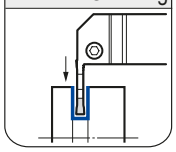
■ Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Applicable Insert	Cap Screw	N·m	Span-ner
	R	L	H	B	LF	WF	HF	LH	CW	CDX					
GNDL R/L 2020 K 1.2516	●	●	20	20	125	20	20	38,0	1,25	16	32	GCM N125005 GF	BX0520	5,0	LH040
GNDL R/L 2020 K 1.516	●	●	20	20	125	20	20	38,0	1,50	16	32	GCM N150005 GF			
GNDL R/L 2020 K 220	●	●	20	20	125	20	20	44,5	2,00	20	40	GCM □20○○-□□			
GNDL R/L 2020 K 320	●	●	20	20	125	20	20	44,5	3,00	20(18)	40	GCM □30○○-□□			
GNDL R/L 2020 K 425	●	●	20	20	125	20	20	50,0	4,00	25(23)	50	GCM □40○○-□□			
GNDL R/L 2020 K 525	●	●	20	20	125	20	20	50,0	5,00	25(23)	50	GCM N50○○-□□			
GNDL R/L 2020 K 625	●	●	20	20	125	20	20	50,0	6,00	25(23)	50	GCM N60○○-□□			
GNDL R/L 2525 M 1.2516	●	●	25	25	150	25	25	40,0	1,25	16	32	GCM N125005 GF			
GNDL R/L 2525 M 1.516	●	●	25	25	150	25	25	40,0	1,50	16	32	GCM N150005 GF			
GNDL R/L 2525 M 220	●	●	25	25	150	25	25	44,5	2,00	20	40	GCM □20○○-□□			
GNDL R/L 2525 M 320	●	●	25	25	150	25	25	44,5	3,00	20(18)	40	GCM □30○○-□□			
GNDL R/L 2525 M 425	●	●	25	25	150	25	25	50,0	4,00	25(23)	50	GCM □40○○-□□			
GNDL R/L 2525 M 525	●	●	25	25	150	25	25	50,0	5,00	25(23)	50	GCM N50○○-□□			
GNDL R/L 2525 M 625	●	●	25	25	150	25	25	50,0	6,00	25(23)	50	GCM N60○○-□□			
GNDL R/L 3225 P 320			32	25	170	25	32	44,5	3,00	20(18)	40	GCM □30○○-□□			
GNDL R/L 3225 P 425			32	25	170	25	32	50,0	4,00	25(23)	50	GCM □40○○-□□			
GNDL R/L 3225 P 525			32	25	170	25	32	50,0	5,00	25(23)	50	GCM N50○○-□□			
GNDL R/L 3225 P 625			32	25	170	25	32	50,0	6,00	25(23)	50	GCM N60○○-□□			
GNDL R/L 3225 P 725			32	25	170	25	32	50,0	7,00	25(23)	50	GCM N70○○-□□	BX0520	6,0	LH050
GNDL R/L 3225 P 825			32	25	170	25	32	50,0	8,00	25(23)	50	GCM N80○○-□□			
GNDL R/L 3232 P 320	●	●	32	32	170	32	32	44,5	3,00	20(18)	40	GCM □30○○-□□	BX0620	6,0	LH050
GNDL R/L 3232 P 425	●	●	32	32	170	32	32	50,0	4,00	25(23)	50	GCM □40○○-□□			
GNDL R/L 3232 P 525	●	●	32	32	170	32	32	50,0	5,00	25(23)	50	GCM N50○○-□□			
GNDL R/L 3232 P 625	●	●	32	32	170	32	32	50,0	6,00	25(23)	50	GCM N60○○-□□			
GNDL R/L 3232 P 725	●	●	32	32	170	32	32	50,0	7,00	25(23)	50	GCM N70○○-□□			
GNDL R/L 3232 P 825	●	●	32	32	170	32	32	50,0	8,00	25(23)	50	GCM N80○○-□□			

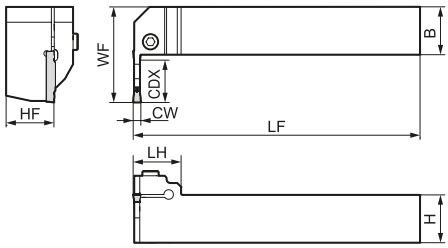
Select holders and inserts with the same grooving width (CW). Dimensions in parentheses are for applications that use copying inserts (RG type breakers).

External L-Styled (Side Cut) Grooving

GNDLS
External Grooving



External



Above figures show right hand tools.

■ Spare Parts

■ Holders

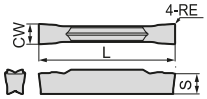
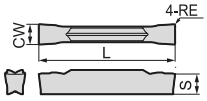
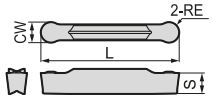
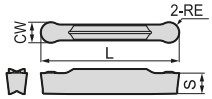
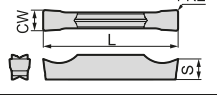
Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	N·m	Span-ner
	R	L	H	B	LF	WF	HF	LH	CW	CDX				
GNDLS R/L 2020 K 216	●	●	20	20	125	38	20	25	2,0	16	GCM □20○○-□□	BX0520	5,0	LH040
GNDLS R/L 2020 K 316	●	●	20	20	125	38	20	25	3,0	16	GCM □30○○-□□			
GNDLS R/L 2525 M 218	●	●	25	25	150	45	25	25	2,0	18	GCM □20○○-□□			
GNDLS R/L 2525 M 318	●	●	25	25	150	45	25	25	3,0	18	GCM □30○○-□□			
GNDLS R/L 2525 M 423	●	●	25	25	150	50	25	25	4,0	23	GCM □40○○-□□			
GNDLS R/L 2525 M 523	●	●	25	25	150	50	25	25	5,0	23	GCM N50○○-□□			
GNDLS R/L 2525 M 623	●	●	25	25	150	50	25	25	6,0	23	GCM N60○○-□□			

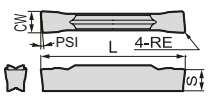
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

■ Inserts for GNDL / GNDLS

Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
			N7008 MG	❍	●	❍	●			7,0	±0,04	0,8	28,75	5,5
			N8008 MG	●	●	❍	●			8,0	±0,04	0,8	28,75	6,0
		ML  Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
			N7004 ML	●	●	❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 ML	❍	●	❍	●			8,0	±0,04	0,4	28,75	6,0
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
			N7004 GG	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GG	●		❍	●			8,0	±0,04	0,4	28,75	6,0
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			N7004 GL	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GL	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
		GF  Low Cutting Force	GCM N125005 GF				●			1,25	±0,03	0,05	17,4	3,2
			N150005 GF				●			1,5	±0,03	0,05	17,4	3,7
			N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
			N7002 GF	❍		❍	●			7,0	±0,04	0,2	28,75	5,5
			N8002 GF	❍		❍	●			8,0	±0,04	0,2	28,75	6,0
			GCM N7004 GF	❍		❍	●			7,0	±0,04	0,4	28,75	5,5
			N8004 GF	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
			N7035 RG	❍	●	❍	●			7,0	±0,04	3,5	29,05	5,5
			N8040 RG	❍	●	❍	●			8,0	±0,04	4,0	29,25	6,0
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

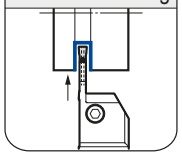
Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	R	L	Dimensions (mm) PSI	CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,04	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force	GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

Select holders and inserts with the same grooving width (CW).

New

External Deep Grooving and Cut-Off

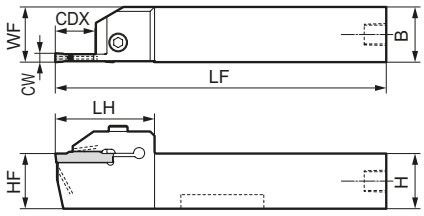
GNDL-JE
External Grooving



External

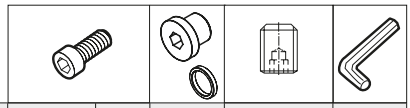
Cut-Off

Internal Coolant



Above figures show right hand tools.

Spare Parts



Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Max. Cutt-Off Dia (mm)	Applicable Insert	Cap Screw	N·m	Plug and Sealing	Grub Screw*	Spanner
	R	L	H	B	LF	WF	HF	LH	CW	CDX							
GNDL R/L 2020 X 210 JE	●	●	20	20	110	20	20	44,5	2,00	20	20	GC□ □20○○-□□	BX0520	6,0	XP02-E	BT0505-E	LH040
GNDL R/L 2020 X 312 JE	●	●	20	20	110	20	20	44,5	3,00	20	24	GC□ □30○○-□□					
GNDL R/L 2020 X 418 JE	●	●	20	20	115	20	20	50,0	4,00	25	36	GC□ □40○○-□□					
GNDL R/L 2020 X 518 JE	●	●	20	20	115	20	20	50,0	5,00	25	36	GC□ N50○○-□□					
GNDL R/L 2020 X 618 JE	●	●	20	20	115	20	20	50,0	6,00	25	36	GC□ N60○○-□□					
GNDL R/L 2525 X 210 JE	●	●	25	25	110	25	25	44,5	2,00	20	20	GC□ □20○○-□□					
GNDL R/L 2525 X 312 JE	●	●	25	25	110	25	25	44,5	3,00	20	24	GC□ □30○○-□□					
GNDL R/L 2525 X 418 JE	●	●	25	25	115	25	25	50,0	4,00	25	36	GC□ □40○○-□□					
GNDL R/L 2525 X 518 JE	●	●	25	25	115	25	25	50,0	5,00	25	36	GC□ N50○○-□□					
GNDL R/L 2525 X 618 JE	●	●	25	25	115	25	25	50,0	6,00	25	36	GC□ N60○○-□□					

Select holders and inserts with the same grooving width (CW).

*Grub screws are sold separately (M5x5)

Fig. 1

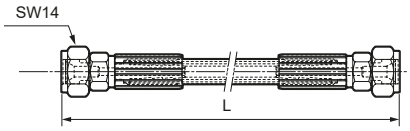


Fig. 1

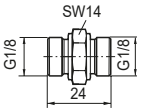


Fig. 2

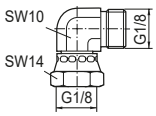
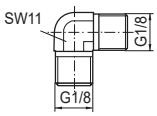


Fig. 3



Parts (Hose)

Cat. No.	Stock	L (mm)	Screw Standard	Screw Standard	Fig.
J-HOSE-G1/8-G1/8-200-E	●	200	G1/8	G1/8	1
J-HOSE-G1/8-G1/8-300-E	●	300	G1/8	G1/8	1

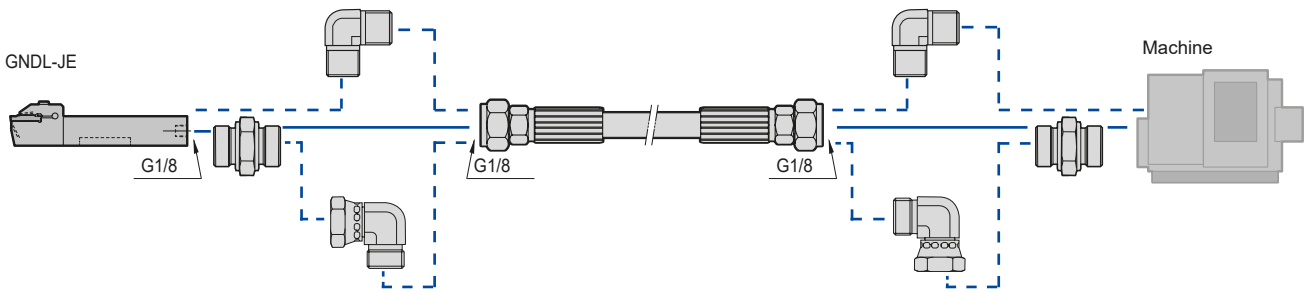
Hoses are sold separately.

Parts (Connector)

Cat. No.	Stock	Screw Standard	Screw Standard	Fig.
J-G1/8-G1/8-00-E	●	G1/8	G1/8	1
J-G1/8-G1/8F-90-E	●	G1/8	G1/8	2
J-G1/8-G1/8-90-E	●	G1/8	G1/8	3

Connectors are sold separately.

Piping Method for Hoses and Connectors



Apply sealant such as commercial sealing tape to the piping connection parts.
GNDL-JE type holders have a plug (XP02-E) mounted on the holder back end at shipping. (see fig.1)
When piping from the holder back end, mount a grub screw (BT0505-E) on the bottom of the holder for use. (see fig. 2)

Fig. 1 Piping from bottom.

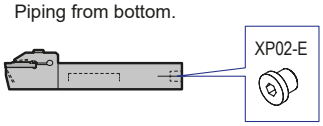
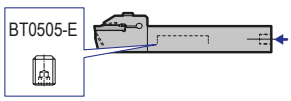


Fig. 2 Piping from back end.



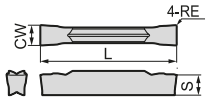
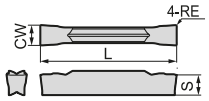
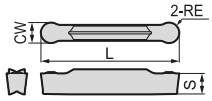
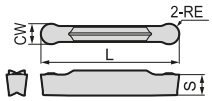
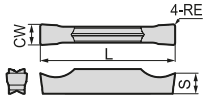
Grooving & Parting-Off

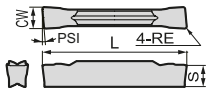
● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

GNDL-JE Type

■ Inserts for GNDL-JE

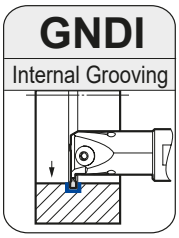
Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

Application	Shape	Type	Cat. No.	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	Cermet R	Cermet L	PSI	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose	GCM R/L2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
			R/L3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
			R/L4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,03	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force	GCM R/L20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
			R/L20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
			R/L30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

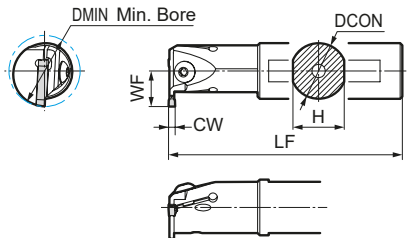
Select holders and inserts with the same grooving width (CW).

GNDI Type

Internal Grooving



Use for multi-purpose or profiling insert for turning (wide grooves).



Above figures show right hand tools.

■ Spare Parts

■ Holders

Cat. No.	Stock		Dimensions (mm)				Min. Bore (mm)	Groov. Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	DCON	H	LF	WF	DMIN	CW	CDX				
GNDI R/L 2532 T 206	●	●	25	23	200	16	32	2,0	6	GCM N20OO-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 210	●	●	32	30	250	26	40	2,0	10	GCM N20OO-□□	BH0616	6,0	LH040
GNDI R/L 2532 T 306	●	●	25	23	200	16	32	3,0	6	GCM N30OO-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 310	●	●	32	30	250	26	40	3,0	10	GCM N30OO-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 311	●	●	40	38	300	31	50	3,0	11	GCM N30OO-□□			
GNDI R/L 2532 T 406	●	●	25	23	200	19	32	4,0	6	GCM N40OO-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 410	●	●	32	30	250	26	40	4,0	10	GCM N40OO-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 411	●	●	40	38	300	31	50	4,0	11	GCM N40OO-□□			
GNDI R/L 2532 T 506	●	●	25	23	200	19	32	5,0	6	GCM N50OO-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 510	●	●	32	30	250	26	40	5,0	10	GCM N50OO-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 511	●	●	40	38	300	31	50	5,0	11	GCM N50OO-□□			
GNDI R/L 4050 T 611	●	●	40	38	300	31	50	6,0	11	GCM N60OO-□□	BH0616	6,0	LH040

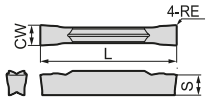
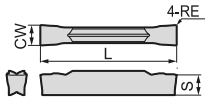
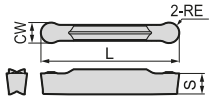
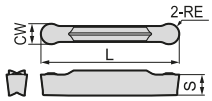
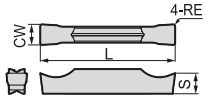
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

GNDI Type

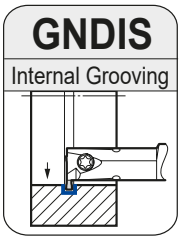
■ GNDI Inserts

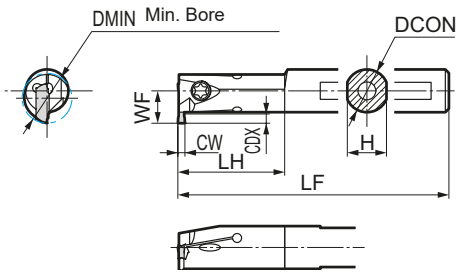
Application	Shape	Type	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
			N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
			N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Copying		**RG**  General Purpose	GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
			N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
			N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
			N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
Face / Necking		**RN**  General Purpose	GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
			N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

Select holders and inserts with the same grooving width (CW).

GNDIS Type

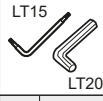
Internal Grooving





Above figures show right hand tools.

Spare Parts

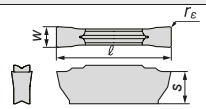
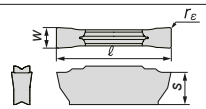


Holders

Cat. No.	Stock		Dimensions (mm)					Min. Bore (mm)	Groov. Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	DCON	H	LF	LH	WF	DMIN	CW	CDX				
GNDIS R/L 1214 T 1526	❍	❍	12	11	150	30	9,0	14	1,5	2,6	GXM N150005S GF			
GNDIS R/L 1214 T 1536	❍	❍	12	11	150	30	10,0	14	1,5	3,6	GXM N150005S GF	BFTX0409N	3,4	LT15
GNDIS R/L 1616 T 1536	❍	❍	16	15	160	35	11,5	16	1,5	3,6	GXM N150005S GF			
GNDIS R/L 1620 T 1546	❍	❍	16	15	160	40	14,5	20	1,5	4,6	GXM N150005S GF	BFTX0511N	5,0	LT20
GNDIS R/L 2025 T 1566	❍	❍	20	19	180	40	19,0	25	1,5	6,6	GXM N150005S GF			
GNDIS R/L 1214 T 2026	❍	❍	12	11	150	30	9,0	14	2,0	2,6	GXM N2002S-□□			
GNDIS R/L 1214 T 2036	❍	❍	12	11	150	30	10,0	14	2,0	3,6	GXM N2002S-□□	BFTX0409N	3,4	LT15
GNDIS R/L 1616 T 2036	❍	❍	16	15	160	35	11,5	16	2,0	3,6	GXM N2002S-□□			
GNDIS R/L 1620 T 2046	❍	❍	16	15	160	40	14,5	20	2,0	4,6	GXM N2002S-□□	BFTX0511N	5,0	LT20
GNDIS R/L 2025 T 2066	❍	❍	20	19	180	40	19,0	25	2,0	6,6	GXM N2002S-□□			
GNDIS R/L 1214 T 3026	❍	❍	12	11	150	30	9,0	14	3,0	2,6	GXM N3002S-□□			
GNDIS R/L 1214 T 3036	❍	❍	12	11	150	30	10,0	14	3,0	3,6	GXM N3002S-□□	BFTX0409N	3,4	LT15
GNDIS R/L 1616 T 3036	❍	❍	16	15	160	35	11,5	16	3,0	3,6	GXM N3002S-□□			
GNDIS R/L 1620 T 3046	❍	❍	16	15	160	40	14,5	20	3,0	4,6	GXM N3002S-□□	BFTX0511N	5,0	LT20
GNDIS R/L 2025 T 3066	❍	❍	20	19	180	40	19,0	25	3,0	6,6	GXM N3002S-□□			

Select holders and inserts with the same grooving width (CW). Only GXM inserts can be used.

GNDIS Inserts

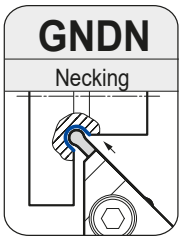
Application	Shape	Type	Cat. No.	Coated Carbide		Dimensions (mm)				
				AC520U	AC1030U	CW		RE	L	S
						Cutting Width	Tolerance			
Grooving / Turning		**ML**  Low Feed	GXM N2002S ML	❍	❍	2,0	±0,03	0,2	11,1	3,1
			N3002S ML	❍	❍	3,0	±0,03	0,2	11,1	3,1
Grooving		**GF**  Low Cutting Force	GXM N150005S GF		❍	1,5	±0,03	0,05	11,1	3,1
			N2002S GF	❍	❍	2,0	±0,03	0,2	11,1	3,1
			N3002S GF	❍	❍	3,0	±0,03	0,2	11,1	3,1

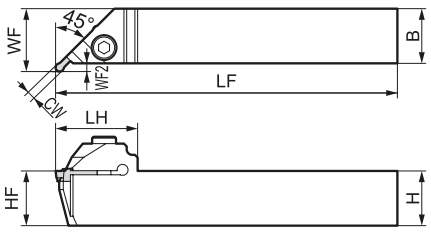
Select holders and inserts with the same grooving width (CW). GCM and GCG inserts are not compatible.

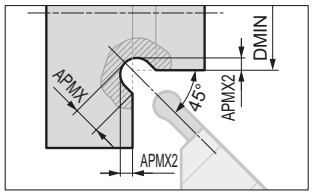
● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

Necking







Above figures show right hand tools.

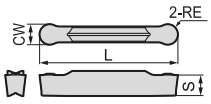
Spare Parts

Holders

Cat. No.	Stock		Dimensions (mm)							Min. Bore (mm)	Groov. Width (mm)	APMX	APMX2	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	WF2	DMIN	CW						
GNDN R/L2020 K 215-020	❍	❍	20	20	125	23	20	30	3,0	20	2,0	1,5	0,64	GCM N2010 RN	BX0520	5,0	LH040
GNDN R/L2020 K 320-020	❍	❍	20	20	125	23	20	30	3,0	20	3,0	2,0	0,79	GCM N3015 RN			
GNDN R/L2020 K 430-030	❍	❍	20	20	125	24	20	32	4,0	30	4,0	3,0	1,29	GCM N4020 RN			
GNDN R/L2020 K 535-030	❍	❍	20	20	125	25	20	35	5,0	30	5,0	3,5	1,44	GCM N5025 RN			
GNDN R/L2020 K 640-030	❍	❍	20	20	125	25	20	35	5,0	30	6,0	4,0	1,59	GCM N6030 RN			
GNDN R/L2525 M 215-020	❍	❍	25	25	150	28	25	30	3,0	20	2,0	1,5	0,64	GCM N2010 RN	BX0520	5,0	LH040
GNDN R/L2525 M 320-020	❍	❍	25	25	150	28	25	30	3,0	20	3,0	2,0	0,79	GCM N3015 RN			
GNDN R/L2525 M 430-030	❍	❍	25	25	150	29	25	32	4,0	30	4,0	3,0	1,29	GCM N4020 RN			
GNDN R/L2525 M 535-030	❍	❍	25	25	150	30	25	35	5,0	30	5,0	3,5	1,44	GCM N5025 RN			
GNDN R/L2525 M 640-030	❍	❍	25	25	150	30	25	35	5,0	30	6,0	4,0	1,59	GCM N6030 RN			

Select holders and inserts with the same grooving width (CW).

GNDN Inserts

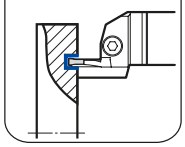
Application	Shape	Type	Cat. No.	Coated Carbide				Dimensions (mm)				
				AC830P	AC425K	AC520U	AC530U	CW		RE	L	S
								Cutting Width	Tolerance			
Face / Necking		**RN**  General Purpose	GCM N2010 RN	-	-	❍	❍	2,0	±0,03	1,0	21,7	3,6
			N3015 RN	❍	❍	❍	❍	3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍	4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍	5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍	6,0	±0,03	3,0	28,1	4,5

Select holders and inserts with the same grooving width (CW).

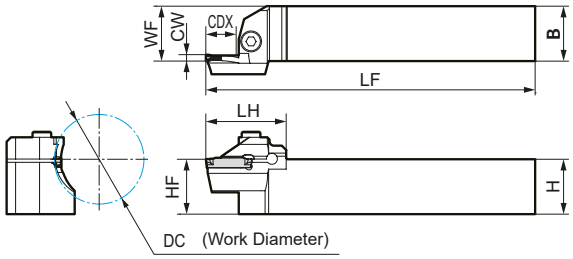
GNDF Type

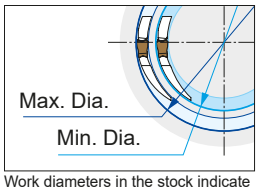
Face Grooving

GNDF
Face Grooving



Face





Work diameters in the stock indicate external diameters of face grooving.

Use for multi-purpose or profiling insert for turning (wide grooves).

Above figures show right hand tools.

Holders

Spare Parts

Cat. No.	Stock		Dimensions (mm)						Work Dia. (mm)	Groov. Width (mm)	Max. Cut-off Dia. (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	DC	CW	CDX				
GNDF R/L 2020 K 312-035	●	●	20	20	125	20	20	35,6	35–45	3,0	12	GCM N30○○-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 312-040	●	●	20	20	125	20	20	35,6	40–55	3,0	12				
GNDF R/L 2020 K 318-050	●	●	20	20	125	20	20	41,6	50–70	3,0	18				
GNDF R/L 2020 K 318-065	●	●	20	20	125	20	20	41,6	65–100	3,0	18				
GNDF R/L 2020 K 318-090	●	●	20	20	125	20	20	41,6	90–150	3,0	18				
GNDF R/L 2020 K 318-140	●	●	20	20	125	20	20	41,6	140–200	3,0	18				
GNDF R/L 2020 K 318-180	●	●	20	20	125	20	20	41,6	180–300	3,0	18				
GNDF R/L 2020 K 418-040	●	●	20	20	125	20	20	41,6	40–55	4,0	18	GCM N40○○-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 423-050	●	●	20	20	125	20	20	46,6	50–70	4,0	23				
GNDF R/L 2020 K 423-065	●	●	20	20	125	20	20	46,6	65–90	4,0	23				
GNDF R/L 2020 K 423-085	●	●	20	20	125	20	20	46,6	85–130	4,0	23				
GNDF R/L 2020 K 423-125	●	●	20	20	125	20	20	46,6	125–200	4,0	23				
GNDF R/L 2020 K 423-180	●	●	20	20	125	20	20	46,6	180–300	4,0	23				
GNDF R/L 2020 K 423-280	●	●	20	20	125	20	20	46,6	280–1000	4,0	23				
GNDF R/L 2020 K 523-050	●	●	20	20	125	20	20	46,6	50–70	5,0	23	GCM N50○○-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 523-065	●	●	20	20	125	20	20	46,6	65–90	5,0	23				
GNDF R/L 2020 K 523-085	●	●	20	20	125	20	20	46,6	85–130	5,0	23				
GNDF R/L 2020 K 523-125	●	●	20	20	125	20	20	46,6	125–200	5,0	23				
GNDF R/L 2020 K 523-180	●	●	20	20	125	20	20	46,6	180–300	5,0	23				
GNDF R/L 2020 K 523-280	●	●	20	20	125	20	20	46,6	280–1000	5,0	23				
GNDF R/L 2020 K 623-050	●	●	20	20	125	20	20	46,6	50–75	6,0	23	GCM N60○○-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 623-070	●	●	20	20	125	20	20	46,6	70–110	6,0	23				
GNDF R/L 2020 K 623-100	●	●	20	20	125	20	20	46,6	100–200	6,0	23				
GNDF R/L 2020 K 623-180	●	●	20	20	125	20	20	46,6	180–300	6,0	23				
GNDF R/L 2020 K 623-280	●	●	20	20	125	20	20	46,6	280–1000	6,0	23				
GNDF R/L 2525 M 312-035	●	●	25	25	150	25	25	35,6	35–45	3,0	12	GCM N30○○-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 312-040	●	●	25	25	150	25	25	35,6	40–55	3,0	12				
GNDF R/L 2525 M 318-050	●	●	25	25	150	25	25	41,6	50–70	3,0	18				
GNDF R/L 2525 M 318-065	●	●	25	25	150	25	25	41,6	65–100	3,0	18				
GNDF R/L 2525 M 318-090	●	●	25	25	150	25	25	41,6	90–150	3,0	18				
GNDF R/L 2525 M 318-140	●	●	25	25	150	25	25	41,6	140–200	3,0	18				
GNDF R/L 2525 M 318-180	●	●	25	25	150	25	25	41,6	180–300	3,0	18				
GNDF R/L 2525 M 418-040	●	●	25	25	150	25	25	41,6	40–55	4,0	18	GCM N40○○-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 423-050	●	●	25	25	150	25	25	46,6	50–70	4,0	23				
GNDF R/L 2525 M 423-065	●	●	25	25	150	25	25	46,6	65–90	4,0	23				
GNDF R/L 2525 M 423-085	●	●	25	25	150	25	25	46,6	85–130	4,0	23				
GNDF R/L 2525 M 423-125	●	●	25	25	150	25	25	46,6	125–200	4,0	23				
GNDF R/L 2525 M 423-180	●	●	25	25	150	25	25	46,6	180–300	4,0	23				
GNDF R/L 2525 M 423-280	●	●	25	25	150	25	25	46,6	280–1000	4,0	23				
GNDF R/L 2525 M 523-050	●	●	25	25	150	25	25	46,6	50–70	5,0	23	GCM N50○○-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 523-065	●	●	25	25	150	25	25	46,6	65–90	5,0	23				
GNDF R/L 2525 M 523-085	●	●	25	25	150	25	25	46,6	85–130	5,0	23				
GNDF R/L 2525 M 523-125	●	●	25	25	150	25	25	46,6	125–200	5,0	23				
GNDF R/L 2525 M 523-180	●	●	25	25	150	25	25	46,6	180–300	5,0	23				
GNDF R/L 2525 M 523-280	●	●	25	25	150	25	25	46,6	280–1000	5,0	23				
GNDF R/L 2525 M 623-050	●	●	25	25	150	25	25	46,6	50–75	6,0	23	GCM N60○○-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 623-070	●	●	25	25	150	25	25	46,6	70–110	6,0	23				
GNDF R/L 2525 M 623-100	●	●	25	25	150	25	25	46,6	100–200	6,0	23				
GNDF R/L 2525 M 623-180	●	●	25	25	150	25	25	46,6	180–300	6,0	23				
GNDF R/L 2525 M 623-280	●	●	25	25	150	25	25	46,6	280–1000	6,0	23				

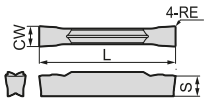
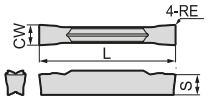
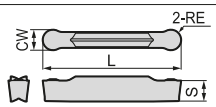
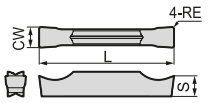
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

GNDF Type

■ Inserts for GNDF

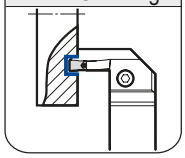
Application	Shape	Type	Cat. No.	Coated Carbide				Cermet	Carbide	Dimensions (mm)				
				AC830P	AC425K	AC520U	AC530U	T2500A	H10	CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Face / Necking		**RN**  General Purpose	GCM N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

Select holders and inserts with the same grooving width (CW).

GNDFS Type

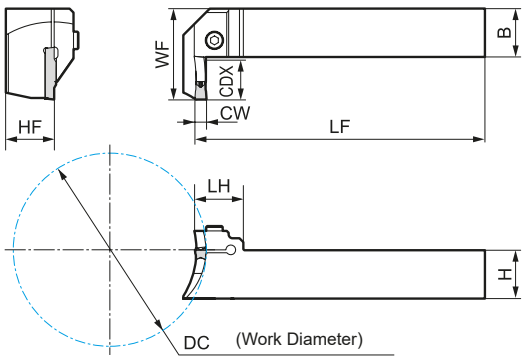
Face Grooving L-Styled (Non-Adjustable Type)

GNDFS
Face Grooving

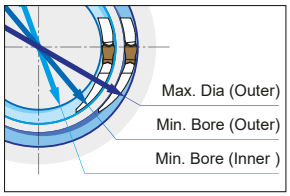


Face

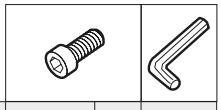
Use the multi-purpose copying inserts for turning (wide grooves).



Above figures show right hand tools.



■ Spare Parts

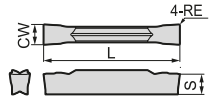
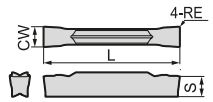
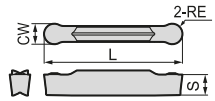
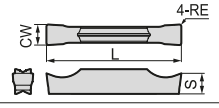


■ Holders

Cat. No.	Stock		Dimensions (mm)						Work Dia. (mm)	Min. Bore Ø Inner (mm)	Groov. Width (mm)	Max. Groov Depth (mm)	Applicable Insert	Cap Screw	N·m	Spanner
	R	L	H	B	LF	WF	HF	LH	DC		CW	CDX				
GNDFS R/L2525M 620 070			25	25	150	47	25	25	70–100	58	6,0	20	GC□ N60○○-□□	BX0520	5,0	LH040
GNDFS R/L2525M 620 100			25	25	150	47	25	25	100–200	88	6,0	20				
GNDFS R/L2525M 620 180			25	25	150	47	25	25	180–300	168	6,0	20				
GNDFS R/L2525M 620 280			25	25	150	47	25	25	280–1000	268	6,0	20				
GNDFS R/L2525M 620 450			25	25	150	47	25	25	>450	438	6,0	20				
GNDFS R/L3232P 620 070			32	32	170	54	32	25	70–100	58	6,0	20	GC□ N60○○-□□	BX0620	6,0	LH050
GNDFS R/L3232P 620 100			32	32	170	54	32	25	100–200	88	6,0	20				
GNDFS R/L3232P 620 180			32	32	170	54	32	25	180–300	168	6,0	20				
GNDFS R/L3232P 620 280			32	32	170	54	32	25	280–1000	268	6,0	20				
GNDFS R/L3232P 620 450			32	32	170	54	32	25	>450	438	6,0	20				
GNDFS R/L2525M 820 070			25	25	150	47	25	30	70–100	54	8,0	20	GCM N80○○-□□	BX0620	6,0	LH050
GNDFS R/L2525M 820 100			25	25	150	47	25	30	100–200	84	8,0	20				
GNDFS R/L2525M 820 180			25	25	150	47	25	30	180–300	164	8,0	20				
GNDFS R/L2525M 820 280			25	25	150	47	25	30	280–1000	264	8,0	20				
GNDFS R/L2525M 820 450			25	25	150	47	25	30	>450	434	8,0	20				
GNDFS R/L3232P 820 070			32	32	170	54	32	30	70–100	54	8,0	20	GCM N80○○-□□	BX0620	6,0	LH050
GNDFS R/L3232P 820 100			32	32	170	54	32	30	100–200	84	8,0	20				
GNDFS R/L3232P 820 180			32	32	170	54	32	30	180–300	164	8,0	20				
GNDFS R/L3232P 820 280			32	32	170	54	32	30	280–1000	264	8,0	20				
GNDFS R/L3232P 820 450			32	32	170	54	32	30	>450	434	8,0	20				

Select holders and inserts with the same grooving width (CW).

■ Inserts for GNDFS

Application	Shape	Type	Cat. No.	Coated Carbide				Cermet	Carbide	Dimensions (mm)				
				AC830P	AC425K	AC520U	AC530U	T2500A	H10	CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG** General Purpose	GCM N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
			N8008 MG	●	●	❍	●			8,0	±0,04	0,8	28,75	6,0
		ML Low Feed	GCM N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
			N8004 ML	❍	●	❍	●			8,0	±0,04	0,4	28,75	6,0
Copying / Cut-Off		**GG** General Purpose	GCM N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
			N8004 GG	●		❍	●			8,0	±0,04	0,4	28,75	6,0
		GL Low Feed	GCM N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			N8004 GL	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
		GF Low Cutting Force	GCM N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
			N8002 GF	❍		❍	●			8,0	±0,04	0,2	28,75	6,0
			N8004 GF	❍		❍	●			8,0	±0,04	0,4	28,75	6,0
Face / Necking		**RN** General Purpose	GCM N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA** General Purpose	GCG N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

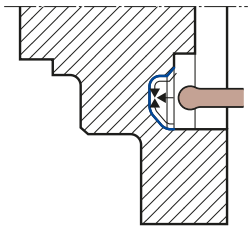
Select holders and inserts with the same grooving width (CW).

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)

■ Application Examples

20CrMo5, Automotive Part, Face Profiling

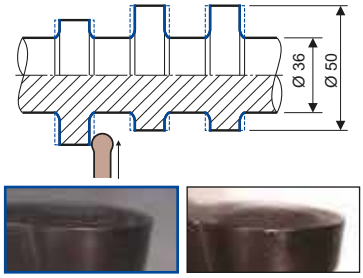


Target:
- Higher rigidity
- Vibration reduction
- Chip control
- Wear resistance performance

Holder:	GNDF R2525M 423-125
Insert:	GCM N4020 RG
Grooving width:	4 mm
Cutting conditions:	v_c= 200 m/min f = 0,14 mm/rev wet

Stable machining free of vibration!
Excellent chip control using the GND type.

C53, Cam Shaft Grooving / Finishing (Contin. to Heavy Interrupted)

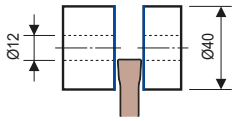


Target:
- Higher rigidity
- Vibration reduction
- Chip control
- Fracture resistance

Holder:	GNDM L2525M 618
Insert:	GCM N6030 RG
Grooving width:	6 mm
Cutting conditions:	v_c= 130 m/min f = 0,36 mm/rev wet

Stable machining free of vibration!
Excellent fracture resistance
Stable chip control

C48, Machine Part, Cut-Off



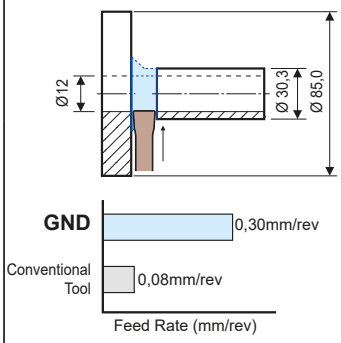
Normal Wear **GND** | Chipping / Large Wear Conventional Tool

Target:
- Higher rigidity
- Vibration reduction
- Fracture resistance

Holder:	GNDL R2525M 320
Insert:	GCM N3002 GG
Grooving width:	3 mm
Cutting conditions:	n = 1600 min^{-1} v_c= 200 m/min f = 0,05 mm/rev wet

Stable machining free of vibration!
Excellent fracture resistance
Stable fracture resistance

34CrMo4, Crank, Cut-Off

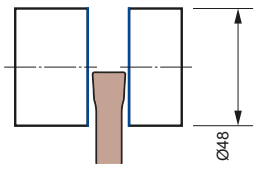


Target:
- Higher rigidity
- Vibration reduction
- Chip control

Holder:	GNDL R2525M 320
Insert:	GCM N3002 GG
Grooving width:	3 mm
Cutting conditions:	v_c= 115 m/min f = 0,30 mm/rev wet

Improved efficiency
Stable machining free of vibration
Stable chip control

X40CrVMo5-1, (45-48HRC), Machine Part, Cut-Off

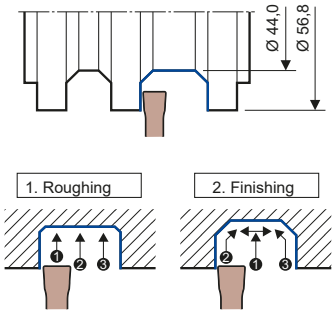


Target:
- Higher rigidity
- Vibration reduction
- Chip control

Holder:	GNDL R2525M 425
Insert:	GCM N4002 GG
Grooving width:	4 mm
Cutting conditions:	v_c= 50 m/min f = 0,03 mm/rev wet

Stable machining free of vibration!
Excellent chip control using the GND type.
No more unexpected breakage!

20Cr4, Gear Shaft, Grooving / Pocketing

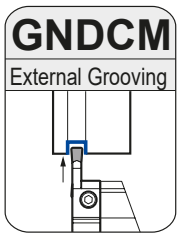


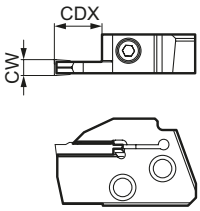
Target:
- Higher rigidity
- Vibration reduction
- Chip control

Holder:	GNDM R2020K 518
Insert:	GCM N5008 MG
Grooving width:	5 mm
Cutting conditions:	v_c= 150 m/min f = 0,1 mm/rev wet

Stable machining free of vibration!
Excellent chip control using the GND type.

GND Grooving System





General Features

New grades and chipbreakers have been added to the already established GND grooving system with polygon shank and a flexible and economical cassette system for inserts. An array of chipbreakers improves the efficiency in chip control in various applications such as grooving, turning, profiling and cut-off.

Advantages

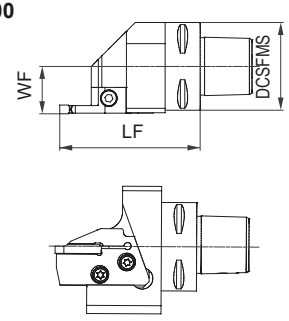
- GND inserts for soft grooving from 2,0 - 6,0 mm width
- Expanded grade selection with 9 different chipbreakers for a wide application range
- Provides excellent chip control
- Achieves stable long tool life

Cassette

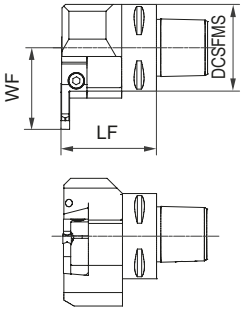
Cat. No.	R	L	CW (mm)	CDX (mm)	Inserts	Cap Screw	Tightening Torque (N·m)	Spanner
GNDCM R/L 212	●	●	2	12	GCM □20○○-□□	BX0512	5,0	LH040
GNDCM R/L 312	●	●	3		GCM □30○○-□□			
GNDCM R/L 418	●	●	4	18	GCM □40○○-□□		6,0	
GNDCM R/L 518	●	●	5		GCM □50○○-□□			
GNDCM R/L 618	●	●	6		GCM □60○○-□□			

Holder

PSC__GM**00**
(straight)



PSC__GM**90**
(L-style)



Note:
The **right** handed PSC40/50GM90R holder needs a **left** cassette.
The **left** handed PSC40/50GM90L holder needs a **right** cassette.

Style	Cat. No.	R	L	DCSFMS (mm)	WF (mm)	LF (mm)	Cap Screw	Tightening Torque (N·m)	Spanner
Straight	PSC40GM00 R/L	●	●	40	22	**80***	BFTX0619N	7,5	LT25
	PSC50GM00 R/L	●	●	50	27				
L-Style	PSC40GM90 R/L	●	●	40	**42***	52,5			
	PSC50GM90 R/L	●	●	50	**47***	55,0			

* Dimension when using radial grooving cassettes.

Identification Details - Polygon-Toolholder

PSC	**40**	-	**G**	**M**	**00**	**R**
Polygonshank	Shank Diameter (DCSFMS)		Series Symbol GND	Application External Multi-Purpose	Style 00 = Straight 90 = L-Style	Holder Design R = Right L = Left

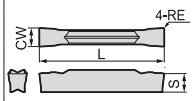
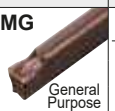
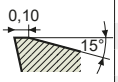
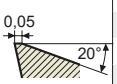
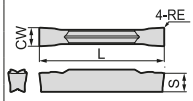
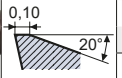
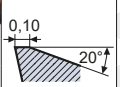
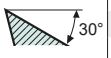
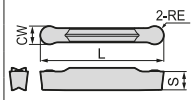
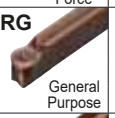
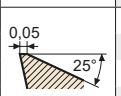
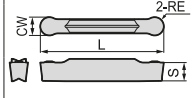
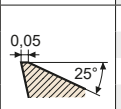
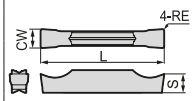
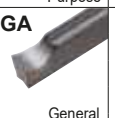
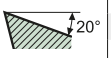
Identification Details - Cassette

GND	**C**	**M**	**L**	**3**	**12**
Series Symbol GND	Cassette	Application External Multi-Purpose	Holder Design R = Right L = Left	Grooving Width	Max. Grooving Depth

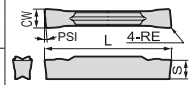
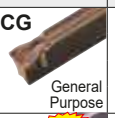
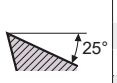
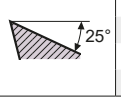
● = Euro stock
○ = Japan stock

Recommended Tightening Torque (N·m)

Inserts

Application	Shape	Type	Cross section of cutting edge	Cat. No.	Coated Carbide AC830P	AC425K	AC520U	AC530U	Cermet T2500A	Carbide H10	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose		GCM N3004 MG	●	●		●			3,0	±0,03	0,4	21,1	3,8
				N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
				N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
				N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  Low Feed		GCM N2002 ML			❍	●			2,0	±0,03	0,2	21,1	3,6
				N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
				N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
				N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
				N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose		GCM N2002 GG	●		●	●			2,0	±0,03	0,2	21,1	3,6
				N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
				N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
				N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
				N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
				GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
				N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
				N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
				N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed		GCM N2002 GL	●		❍	●			2,0	±0,03	0,2	21,1	3,6
				N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
				N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
				N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
				N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force		N2002 GF				●	❍		2,0	±0,03	0,2	21,1	3,6
				N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
				N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
				N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
				N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Copying		**RG**  General Purpose		GCM N3015 RG	●	●	❍	●	❍		3,0	±0,03	1,5	21,1	3,8
				N4020 RG	❍	●	❍	●	❍		4,0	±0,03	2,0	26,4	4,0
				N5025 RG	●	●	❍	●			5,0	±0,03	2,5	27,2	4,1
				N6030 RG	❍	●	❍	●			6,0	±0,03	3,0	27,5	4,5
Face / Necking		**RN**  General Purpose		GCM N2010 RN			❍	❍			2,0	±0,03	1,0	21,7	3,6
				N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
				N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
				N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
				N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose		GCG N2002 GA						❍	2,0	±0,025	0,2	21,1	3,6
				N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
				N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
				N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
				N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

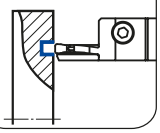
Select holders and inserts with the same grooving width (CW).

Application	Shape	Type	Cross section of cutting edge	Cat. No. R / L	Coated Carbide AC830P R	AC830P L	AC520U R	AC520U L	AC530U R	AC530U L	AC1030U R	AC1030U L	Cermet R	Cermet L	PSI	Dimensions (mm) CW Cutting Width	CW Tolerance	RE	L	S
Cut-Off	Figures show right hand tools. 	**CG**  General Purpose		GCM□2002 CG 05	❍	❍	❍	❍	●	●					5°	2,0	±0,03	0,2	21,1	3,6
				□3002 CG 05	●	❍	❍	❍	●	●					5°	3,0	±0,03	0,2	21,3	3,8
				□4002 CG 05	❍	❍	❍	❍	●	●					5°	4,0	±0,03	0,2	26,7	4,0
Cut-Off		**CF** New  Low Cutting Force		GCM□20003 CF 10							●	●			10°	2,0	±0,08	0,03	22,4	3,6
				□30003 CF 10							●	●			10°	3,0	±0,08	0,03	22,4	3,8
				□20003 CF 15							●	●			15°	2,0	±0,08	0,03	22,4	3,6
				□30003 CF 15							●	●			15°	3,0	±0,08	0,03	22,4	3,8

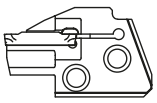
GND Grooving System

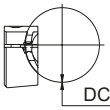
New

GNDCF
Face Grooving

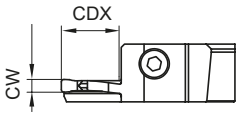


Face

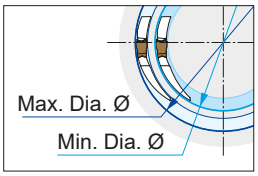




DC Work Diameter (mm)



Above figures show right hand tools.



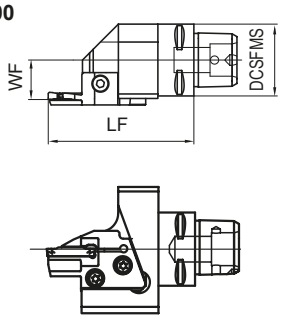
Work diameters in the stock indicate external diameters of face grooving.

Cassette

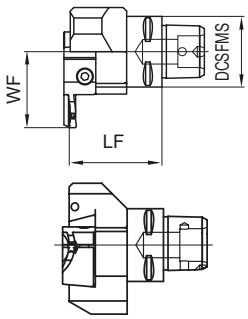
Cat. No.	R	L	CW (mm)	Diameter Range (mm)	DC (mm)	CDX (mm)	Inserts	Cap Screw	Tightening Torque (N·m)	Spanner
GNDCF R/L 312-040	●	●	3	40–200	40–55	12	GC□ N30○○-□□	BX0512	5,0	LH040
GNDCF R/L 315-050	●	●			50–70	15				
GNDCF R/L 315-065	●	●			65–100	15				
GNDCF R/L 318-090	●	●			90–150	18				
GNDCF R/L 318-140	❑	❑			140–200	18				
GNDCF R/L 418-040	●	●	4	40–300	40–55	18	GC□ N40○○-□□		6,0	
GNDCF R/L 418-050	●	●			50–70	18				
GNDCF R/L 418-065	●	●			65–90	18				
GNDCF R/L 418-085	●	●			85–130	18				
GNDCF R/L 418-125	❑	❑			125–200	18				
GNDCF R/L 418-180	❑	❑			180–300	18				
GNDCF R/L 518-050	❑	❑	5	50–300	50–70	18	GC□ N50○○-□□			
GNDCF R/L 518-065	❑	❑			65–90	18				
GNDCF R/L 518-085	❑	❑			85–130	18				
GNDCF R/L 518-125	❑	❑			125–200	18				
GNDCF R/L 518-180	❑	❑			180–300	18				
GNDCF R/L 618-050	❑	❑	6	50–1000	50–75	18	GC□ N60○○-□□			
GNDCF R/L 618-070	❑	❑			70–110	18				
GNDCF R/L 618-100	❑	❑			100–200	18				
GNDCF R/L 618-180	❑	❑			180–300	18				
GNDCF R/L 618-280	❑	❑			280–1000	18				

Holder

PSC__GM**00**
(straight)



PSC__GM**90**
(L-style)



Note:
The **right** handed PSC40/50GM90R holder needs a **left** cassette.
The **left** handed PSC40/50GM90L holder needs a **right** cassette.

Style	Cat. No.	R	L	DCSFMS (mm)	WF (mm)	LF (mm)	Cap Screw	Tightening Torque (N·m)	Spanner
Straight	PSC40GM00 R/L	●	●	40	22	**81***	BFTX0619N	7,5	LT25
	PSC50GM00 R/L	●	●	50	27				
L-Style	PSC40GM90 R/L	●	●	40	**43***	52,5			
	PSC50GM90 R/L	●	●	50	**48***	55,0			

* Dimension when using face grooving cassettes.

Identification Details - Polygon-Toolholder

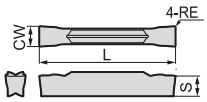
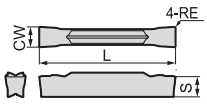
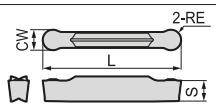
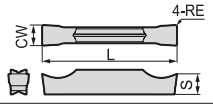
PSC	40	-	G	M	00	R
Polygonshank	Shank Diameter (DCSFMS)		Series Symbol GND	Application External Multi-Purpose	Style 00 = Straight 90 = L-Style	Holder Design R = Right L = Left

Identification Details - Cassette

GND	C	F	L	3	12
Series Symbol GND	Cassette	Application Face Grooving	Holder Design R = Right L = Left	Grooving Width	Max. Grooving Depth

● = Euro stock
○ = Japan stock
❑ = Delivery on request
Recommended Tightening Torque (N·m)

■ Inserts

Application	Shape	Type	Cat. No.	Coated Carbide				Cermet	Carbide	Dimensions (mm)				
				AC830P	AC425K	AC520U	AC530U	T2500A	H10	CW Cutting Width	CW Tolerance	RE	L	S
Grooving / Turning		**MG**  General Purpose	GCM N3004 MG	●	●	❍	●			3,0	±0,03	0,4	21,1	3,8
			N4008 MG	●	●	❍	●			4,0	±0,03	0,8	26,4	4,0
			N5008 MG	●	●	❍	●			5,0	±0,03	0,8	26,4	4,1
			N6008 MG	●	●	❍	●			6,0	±0,03	0,8	26,4	4,5
		ML  CW=<4mm CW=>5mm Low Feed	GCM N3002 ML	●	●	❍	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4004 ML	●	●	❍	●	❍		4,0	±0,03	0,4	26,4	4,0
			N5004 ML	●	●	❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 ML	●	●	❍	●			6,0	±0,03	0,4	26,4	4,5
Copying / Cut-Off		**GG**  General Purpose	GCM N3002 GG	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GG	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GG	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GG	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
			GCM N3004 GG	●		❍	●			3,0	±0,03	0,4	21,1	3,8
			N4004 GG	●		❍	●			4,0	±0,03	0,4	26,4	4,0
			N5004 GG	❍		❍	●			5,0	±0,03	0,4	26,4	4,1
			N6004 GG	❍		❍	●			6,0	±0,03	0,4	26,4	4,5
		GL  Low Feed	GCM N3002 GL	●		❍	●			3,0	±0,03	0,2	21,1	3,8
			N4002 GL	●		❍	●			4,0	±0,03	0,2	26,4	4,0
			N5002 GL	❍		❍	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GL	❍		❍	●			6,0	±0,03	0,2	26,4	4,5
		GF  Low Cutting Force	GCM N3002 GF	●		●	●	❍		3,0	±0,03	0,2	21,1	3,8
			N4002 GF	●		●	●	❍		4,0	±0,03	0,2	26,4	4,0
			N5002 GF	❍		●	●			5,0	±0,03	0,2	26,4	4,1
			N6002 GF	❍		●	●			6,0	±0,03	0,2	26,4	4,5
Face / Necking		**RN**  General Purpose	GCM N3015 RN	❍	❍	❍	❍			3,0	±0,03	1,5	22,4	3,8
			N4020 RN	❍	❍	❍	❍			4,0	±0,03	2,0	28,0	4,0
			N5025 RN	❍	❍	❍	❍			5,0	±0,03	2,5	28,1	4,1
			N6030 RN	❍	❍	❍	❍			6,0	±0,03	3,0	28,1	4,5
Non Ferrous Metals		**GA**  General Purpose	GCG N3002 GA						❍	3,0	±0,025	0,2	21,1	3,8
			N4004 GA						❍	4,0	±0,025	0,4	26,4	4,0
			N5004 GA						❍	5,0	±0,025	0,4	26,4	4,1
			N6004 GA						❍	6,0	±0,025	0,4	26,4	4,5

Select holders and inserts with the same grooving width (CW).

TGA-BF Type

Characteristics

- Outstanding chip control when grooving
- Excellent chip control when finishing wide grooves using axial feed
- Grooving inserts from 1,5–4,5 mm wide
- Grade AC530U with Super ZX ultra hard coating for steels, stainless steels and cast iron increases productivity and extends tool life

External Grooving

Figures show right hand tools.

GWC
External Grooving

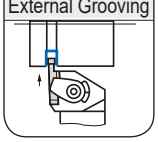


Fig. 1

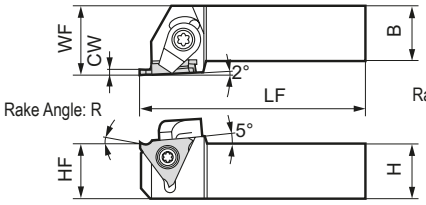


Fig. 2

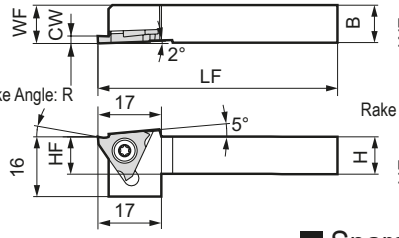
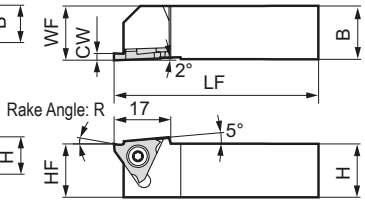


Fig. 3



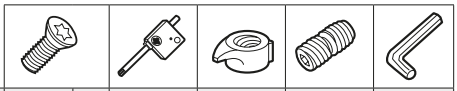
The rake angle R varies depending on the insert grade. For details, see the table at the lower part of page F39.

Holders

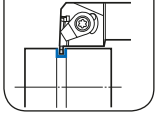
Right handed tool holders are applicable with **left** handed inserts (TGA-L).

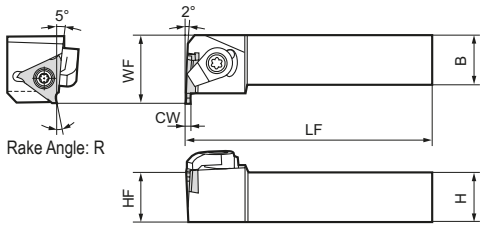
Cat. No.	Stock		Dimensions (mm)					Fig.	Grooving Width	Maximum Grooving Depth (mm)	Applicable Insert Group No.	Spare Parts					
	R	L	H	B	LF	WF	HF		CW (mm)			Screw	(N·m)	Wrench	Clamp	Screw	Wrench
GWC R/L 1010-3	❍	❍	10	10	125	10	10	2	0,33–2,80	0,8–2,5	❶	BFTX 0409N	3,4	TRX15	–	–	–
GWC R/L 1212-3	❍	❍	12	12	125	12	12	2	0,33–2,80	0,8–2,5	❶						
GWC R/L 1616-3	●	❍	16	16	125	16	16	3	0,33–2,80	0,8–2,5	❶						
GWC R/L 2020-3	❍	❍	20	20	125	25	20	1	0,33–2,80	0,8–2,5	❶	BFTX 0409N	3,4	TRX15	CCM 6B -L/R	WB 6-20 -T/TL	LT20
GWC R/L 2525-3	❍	●	25	20	150	30	25	1	0,33–2,80	0,8–2,5	❶						
GWC R/L 2020-15	●	●	20	20	125	25	20	1	1,25–1,45	2,0	❷	BFTX 0511N	5,0	TRX20	CCM 8U -L/R	WB 8-22 -T/TL	LT27
GWC R/L 2020-25	●	●	20	20	125	25	20	1	1,50–2,30	3,5	❸						
GWC R/L 2020-35	●	●	20	20	125	25	20	1	2,50–4,80	5,0	❹						
GWC R/L 2525-15	●	●	25	25	150	30	25	1	1,25–1,45	2,0	❷						
GWC R/L 2525-25	●	●	25	25	150	30	25	1	1,50–2,30	3,5	❸						
GWC R/L 2525-35	●	●	25	25	150	30	25	1	2,50–4,80	5,0	❹						

Spare Parts



GWCS
External Grooving





The rake angle R varies depending on the insert grade. For details, see the table at the lower part of page F39.

Figures show right hand tools.

Holders

Right handed tool holders are applicable with **left** handed inserts (TGA-L).

Cat. No.	Stock		Dimensions (mm)					Grooving Width	Maximum Grooving Depth (mm)	Applicable Insert Group No.	Spare Parts					
	R	L	H	B	LF	WF	HF	CW (mm)			Screw	(N·m)	Wrench	Clamp	Screw	Wrench
GWCS R/L 2020-3			20	20	125	25	20	0,33–2,80	0,8–2,5	❶	BFTX 0409N	3,4	TRX15	CCM 6B -L/R	WB 6-20 -T/TL	LT20
GWCS R/L 2525-3			25	25	150	30	25	0,33–2,80	0,8–2,5	❶						
GWCS R/L 2020-15	❍	❍	20	20	125	27	20	1,25–1,45	2,0	❷	BFTX 0511N	5,0	TRX20	CCM 8U -L/R	WB 8-22 -T/TL	LT27
GWCS R/L 2020-25	❍	❍	20	20	125	27	20	1,50–2,30	3,5	❸						
GWCS R/L 2020-35	❍	❍	20	20	125	27	20	2,50–4,80	5,0	❹						
GWCS R/L 2525-15	❍	❍	25	25	150	32	25	1,25–1,45	2,0	❷						
GWCS R/L 2525-25		❍	25	25	150	32	25	1,50–2,30	3,5	❸						
GWCS R/L 2525-35	❍	❍	25	25	150	32	25	2,50–4,80	5,0	❹						

● = Euro stock
○ = Japan stock
❑ = Delivery on request
(N·m) Recommended Tightening Torque (N·m)

ISO-PSC Polygon Modular

PSC

Holder

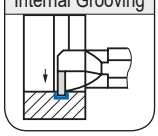
Cat. No.	R	L	Ø (mm)	F (mm)	L (mm)	Cap Screw	(N·m)	Spanner
PSC 40 GM00 R/L	●	●	40	22	80,0	BFTX0619N	7,5	LT25
PSC 50 GM00 R/L	●	●	50	27	80,0			
PSC 40 GM90 R/L	●	●	40	42	52,5			
PSC 50 GM90 R/L	●	●	50	47	55,0			

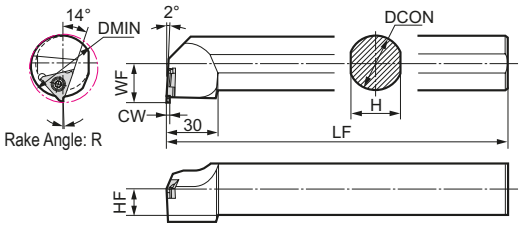
Cassette

Cat. No.	R	L	Grooving Width (mm)	Grooving Depth (mm)	Insert	Insert Screw	Spanner	Spring	Clamp Finger	Cap Screw	(N·m)	Spanner
GWCCM R/L 25	●	●	1,5–2,3	3,9	TGA□4□□□BF	BFTX0511N	TRX20	SCP4A			3,0	LH030
GWCCM R/L 35	●	●	2,5–4,5	5,4	TGA□4□□□BF	**5,0** (N·m)						

Internal Grooving

GWCI
Internal Grooving





The rake angle R varies depending on the insert grade. For details, see the table at the lower part of page F39.

Figures show right hand tools.

Spare Parts


Holders

Right handed tool holders are applicable with **left** handed inserts (TGA-L).

Cat. No.	Stock R	Stock L	Dimensions (mm) DMIN	DCON	LF	H	HF	WF	Grooving width CW (mm)	Maximum Grooving Depth (mm)	Applicable Insert Group No.	Screw	(N·m)	Wrench
GWCI R/L 325	❑	❑	35	25	100	23	11,5	17,5	0,33–2,80	0,8–2,0	❶	BFTX0409N	3,4	TRX 15
GWCI R/L 432	❑	❑	40	32	250	30	15,0	17,5	1,25–4,80	2,0–2,5	❷❸❹	BFTX0511N	5,0	TRX 20

Inserts

Fig. 1

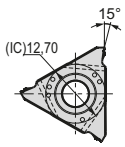
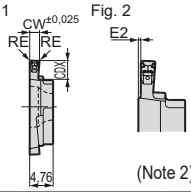


Fig. 2



Notice:
Please note the cutting edge position E2, for grooving widths below 1,85 mm..

(Note 2) Figures show right hand tools.

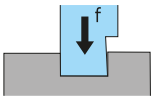
Cat. No.	Coated AC530U R	Coated AC530U L	Dimensions (mm) ( ) CDX: presents max. depth CW	CDX	RE	E2	Fig.	Applicable holder & insert group
TGA R/L 4140BF01	❍	❍	1,40	2,5 (2,0-1,7)	0,1	0,300	2	❷
TGA R/L 4150BF	●	●	1,50	3,9 External (3,5) Internal (2,5)	0,2	0,250	2	❸
TGA R/L 4165BF	❍	❍	1,65			0,175		
TGA R/L 4175BF	❍	❍	1,75			0,125		
TGA R/L 4185BF	❍	❍	1,85			0,075		
TGA R/L 4200BF	●	●	2,00			0	1	
TGA R/L 4220BF	❍	❍	2,20					
TGA R/L 4230BF	❍	❍	2,30					
TGA R/L 4250BF	●	●	2,50	5,4 External (5,0) Internal (2,5)	0,3	0	1	❹
TGA R/L 4265BF	❍	❍	2,65					
TGA R/L 4270BF	❍	❍	2,70					
TGA R/L 4280BF	❍	❍	2,80					
TGA R/L 4300BF	●	●	3,00					
TGA R/L 4320BF	❍	❍	3,20					
TGA R/L 4330BF	❍	❍	3,30					
TGA R/L 4350BF	●	●	3,50					
TGA R/L 4370BF	❍	❍	3,70					
TGA R/L 4390BF	❍	❍	3,90					
TGA R/L 4400BF	●	●	4,00		0,4			
TGA R/L 4410BF	❍	❍	4,10					
TGA R/L 4420BF		❍	4,20					
TGA R/L 4430BF	❍	❍	4,30					
TGA R/L 4440BF	❍	❍	4,40					
TGA R/L 4450BF	●	●	4,50					

*) Please select applicable inserts for the holders by using matching group numbers.

Recommended Cutting Conditions

Grooving

Feed direction

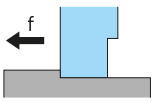


Wet condition is recommended.

Work Material		General Steel		Stainless Steel	
Cutting speed (m/min)		50–180		50–160	
Groove width (mm)		1,5–2,3	2,5–3,3	3,5–4,5	
Feed rate (mm/rev)		0,03–0,12	0,04–0,12	0,05–0,12	
Depth of cut (mm)	Ext.	–3,5	–5,0	–5,0	
	Int.	–2,5			

Axial Feed

Feed direction for axial feed



Wet condition is recommended.

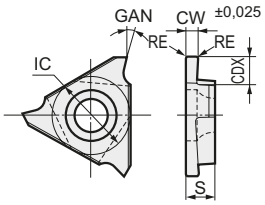
Work Material	General Steel		Stainless Steel
Cutting speed (m/min)	50–180		50–160
Feed rate (mm/rev)	0,03–0,10	0,05–0,10	0,07–0,12
Depth of cut (mm)	–0,3	–0,5	–0,7

Rake Angle with a Holder Fitted (E)

Grooving	AC530U	H1	T3000Z	T1500A	BN2000	DA2200
External GMC, GWCS	10°	20°	10°	5°	0°	10°
Internal GMCI	1°	11°	1°	–4°	–9°	1°

TGA Type

■ Inserts



This figure shows right handed tools.

Grade		Cutting Edge	GAN
Coated Carbide	AC530U	Honing	15°
Carbide	H1	Sharp	25°
Coated Cermet	T3000Z	Honing	15°
Cermet	T1500A	Sharp	10°
SUMIBORON	BN2000	K-Land	5°
SUMIDIA	DA2200	Sharp	15°

* See page F39 for the rake angle with a holder fitted.

Dimensions (mm)

Cat. No. (The part numbers of T1500A end with E)	AC530U		H1		T3000Z		T1500A		BN2000		DA2200		CW	Max. Groove Depth		CDX	RE	IC	S	Insert /Holder Group No.*
	R	L	R	L	R	L	R	L	R	L	R	L		External	Internal					
TGA R/L 3033 (E)	○		○						–	–	–	–	0,33	0,8	0,5	1,0	0,05	9,525	3,18	❶
TGA R/L 3050 (E)	○	○			○				–	–	–	–	0,50	1,2	0,8	1,4				
TGA R/L 3075 (E)	○	○	○										0,75	2,0	1,5	2,5	0,1 (T1500A 0,2)			
R/L 3095 (E)	○	○											0,95							
R/L 3100 (E)	○	○	○		○	○	○	○					1,00							
R/L 3110 (E)	○	○											1,10							
R/L 3125 (E)	○	○	○		○								1,25							
R/L 3135 (E)	○				○		○						1,35							
R/L 3145 (E)	○	○											1,45							
R/L 3150 (E)	○	○	○										1,50							
R/L 3165 (E)	○												1,65							
R/L 3175 (E)	○	○			○								1,75							
R/L 3185 (E)	○												1,85							
TGA R/L 3200 (E)	○	○	○		○		○						2,00	2,5	2,0	3,0				
R/L 3220 (E)		○											2,20							
R/L 3230 (E)													2,30							
R/L 3250 (E)	○		○										2,50							
R/L 3265 (E)													2,65							
R/L 3270 (E)													2,70							
R/L 3280 (E)	○												2,80							
TGA R/L 4125 (E)	○	○									○		1,25	2,0	1,7	2,5	0,2 *2	12,70	4,76	❷
R/L 4145 (E)	○	○											1,45							
TGA R/L 4150 (E)		○	○	○							❑		1,50	3,5	2,5	3,9				❸
R/L 4165 (E)													1,65							
R/L 4175 (E)													1,75							
R/L 4185 (E)		○	○	○									1,85							
R/L 4200 (E)	○	○							○		○		2,00							
R/L 4220 (E)		○											2,20							
R/L 4230 (E)	○	○											2,30							
TGA R/L 4250 (E)	○		○				○		○				2,50	5,0 *1	2,5	5,4 *1	0,3 *2			❹
R/L 4265 (E)	○		○										2,65							
R/L 4270 (E)													2,70							
R/L 4280 (E)	○												2,80							
R/L 4300 (E)	○	○	○				○				○		3,00							
R/L 4320 (E)													3,20							
R/L 4330 (E)	○												3,30							
TGA R/L 4350 (E)	○												3,50	5,0	2,5	5,4	0,4 *2		5,00	
R/L 4370 (E)													3,70							
R/L 4390 (E)													3,90							
R/L 4400 (E)	○								○				4,00							
R/L 4410 (E)													4,10							
R/L 4420 (E)													4,20							
R/L 4430 (E)													4,30							
R/L 4440 (E)													4,40							
R/L 4450 (E)			○										4,50							
R/L 4480 (E)													4,80							

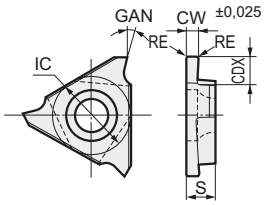
* See the group numbers of GWC, GWCS and GWCI types on page F38 and F39 to find applicable holders. Inserts and holders that have corresponding group numbers can be used together.

*1: CDX for SUMIBORON and SUMIDIA = 4,4, maximum groove depth 4,0 (2,5 during internal machining)
*2: RE for SUMIBORON = 0,2, RE for SUMIDIA = 0,1

○ = Japan stock ❑ = Delivery on request

TGA Type

Inserts



This figure shows right handed tools.

Grade		Cutting Edge	GAN
Coated Carbide	AC530U	Honing	15°
Carbide	H1	Sharp	25°
Coated Cermet	T3000Z	Honing	15°
Cermet	T1500A	Sharp	10°
SUMIBORON	BN2000	K-Land	5°
SUMIDIA	DA2200	Sharp	15°

* See page F39 for the rake angle with a holder fitted.

Dimensions (mm)

Cat. No.	AC530U		H1		T3000Z		T1500A		BN2000		DA2200		CW	Max. Groove Depth		CDX	RE	IC	S	Insert /Holder Group No.*
	R	L	R	L	R	L	R	L	R	L	R	L		External	Internal					
TGA R/L 4050 R	❍	❍											1,00	2,0	1,7	2,5	0,50	12,70	4,76	❷
TGA R/L 4075 R	❍	❍											1,50	3,5	2,5	3,9	0,75			❸
R/L 4100 R	❍	❍											2,00				1,00			
TGA R/L 4125 R	❍	❍											2,50	5,0 *1	2,5	5,4 *1	1,25			❹
R/L 4150 R	❍				❍						❑		3,00				1,50			
R/L 4200 R	❍												4,00				2,00			

* See the group numbers of GWC, GWCS and GWCI types on page F38 and F39 to find applicable holders. Inserts and holders that have corresponding group numbers can be used together.

*1 CDX for SUMIBORON and SUMIDIA = 4,4, maximum groove depth 4,0 (2,5 during internal machining)

Recommended Cutting Conditions

Work Material	P General Steel			M Stainless Steel			N Non-Ferrous Metal		H Hardened Steel
Grade	AC530U	T3000Z	T1500A	AC530U	T3000Z	T1500A	H1	DA2200	BN2000
Cutting Speed (m/min)	50–200	100–180	100–180	50–200	80–150	80–120	200–300	200–300	80–120
Feed Rate (mm/rev)	0,02–0,10	0,05–0,10	0,05–0,08	0,02–0,10	0,05–0,08	0,05–0,08	0,05–0,15	0,05–0,15	0,03–0,07

Insert Blanks

(Incomplete products. Machine them to meet your edge width, nose radius and rake angle requirements.)

Fig. 1

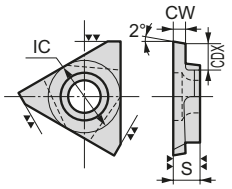
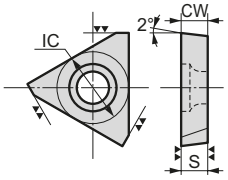


Fig. 2



This figure shows right handed tools.

Dimensions (mm)

Cat. No.	KH03		H1		EH510		T1500A		CW	CDX	IC	S	Fig.
	R	L	R	L	R	L	R	L					
TGA R/L 3 T18									1,85	(3,4)	9,525	3,18	1
R/L 3 T23							❍	❍	2,35	(3,4)			
R/L 3 T31	❍								3,18	–			2
TGA R/L 4 T22									2,20	(4,8)	12,70	4,76	1
R/L 4 T37									3,75	(6,2)			
R/L 4 T47	❍						❍		4,76	–			2

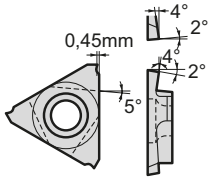
Note: CDX values in parentheses are for reference only.

Notes for Machining an Insert

Make the cutting edge so that the rake angle, back taper, etc. as shown in fig. 3. When you have installed an insert into a holder, it becomes a cutting blade element as shown in fig. 4.

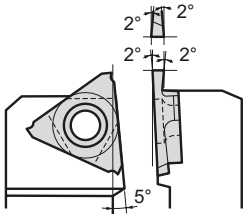
Suggested Shape

Fig. 3



Cutting blade element during holder installation

Fig. 4



SCT Type

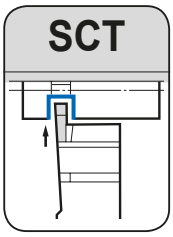


Fig. 1

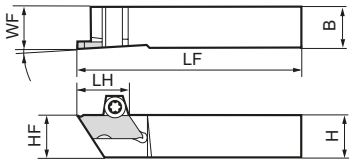
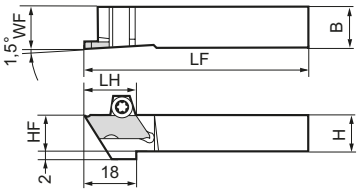


Fig. 2



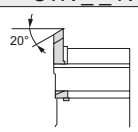
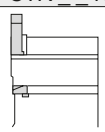
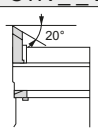
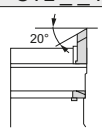
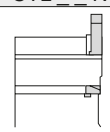
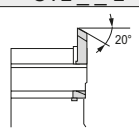
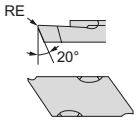
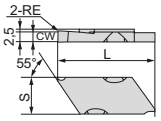
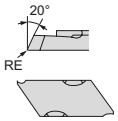
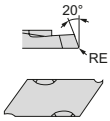
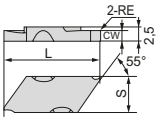
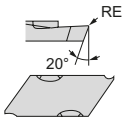
Above figures show right hand tools.

Spare Parts

Holders

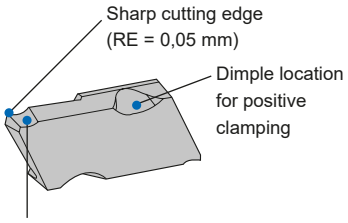
Cat. No.	Stock	Dimensions (mm) H	B	LF	WF	HF	LH	Applicable inserts	Fig.	Screw	Wrench
SCT R 1010	●	10	10	120	10	10	15	CT R05_ _ _ CT R12_ _ _	1	BFTX0410T8L	TRX 08
SCT R 1212	●	12	12	120	12	12	15				
SCT R 1616	●	16	16	120	16	16	15				
SCT R 101016	❍	10	10	120	10	10	18	CT R16_ _ _	2		
SCT R 121216	❍	12	12	120	12	12	18				
SCT R 161616	❍	16	16	120	16	16	18		1		
SCT L 1010	●	10	10	120	10	10	15	CT L05 _ _ _ CT L12 _ _ _	1	BFTX0410T8R	
SCT L 1212	●	12	12	120	12	12	15				
SCT L 1616	●	16	16	120	16	16	15				
SCT L 101016	❍	10	10	120	10	10	18	CT L16 _ _ _	2		
SCT L 121216	❍	12	12	120	12	12	18				
SCT L 161616	❍	16	16	120	16	16	18		1		

Inserts

	For Right Handed Holder (SCTR)			For Left Handed Holder (SCTL)		
	CTR _ _ R	CTR _ _ N	CTR _ _ L	CTL _ _ R	CTL _ _ N	CTL _ _ L
Installation Conditions for Holder						
Insert Shape and Dimensions						

Cat. No.	AC1030U R	N	L	AC530U R	N	L	Max. Cut-Off Ø (mm)	CW	RE	L	S	Chip Breaker	Applicable Holder
CTR 050505 R/N/L	❍	❍	❍	❍	❍	❍	5	0,5	0,05	19	7	With Chip Breaker	SCT R1010 SCT R1212 SCT R1616
050500 R/N/L	❍	❍		❍	❍		5		0				
CTR 121005 R/N/L	❍	❍	❍	❍	❍	❍	12	1,0					
121505 R/N/L	●	●	❍	❍	❍	❍	12	1,5	0,05				
122005 R/N/L	●	●		❍	❍		12	2,0					
121000 R/N/L	❍	❍		❍	❍		12	1,0					
121500 R/N/L	❍	❍		❍	❍		12	1,5	0				
122000 R/N/L	❍	❍		❍	❍		12	2,0					
CTR 161005 R/N/L							16	1,0		23,1	8,3		SCT R101016 SCT R121216 SCT R161616
161505 R/N/L	❍	❍		❍	❍		16	1,5	0,05				
162005 R/N/L	❍	❍	❍		❍	❍	16	2,0					
161000 R/N/L							16	1,0					
161500 R/N/L	❍	❍		❍	❍		16	1,5	0				
162000 R/N/L	❍	❍	❍	❍	❍	❍	16	2,0					
CTR 050500 R/N/L NB							5	0,5	0	19	7	Without Chip Breaker	SCT R1010 SCT R1212 SCT R1616
CTR 121000 R/N/L NB	❍			❍			12	1,0					
121500 R/N/L NB	❍			❍			12	1,5					
122000 R/N/L NB	❍			❍			12	2,0					
CTR 161000 R/N/L NB							16	1,0		23,1	8,3		SCT R101016 SCT R121216 SCT R161616
161500 R/N/L NB							16	1,5					
162000 R/N/L NB	❍			❍			16	2,0					

CTL 050505 R/N/L	❍	❍		❍	❍		5	0,5	0,05	19	7	With Chip Breaker	SCT R1010 SCT R1212 SCT R1616
050500 R/N/L	❍	❍		❍	❍		5		0				
CTL 121005 R/N/L	❍	❍	●	❍	❍	❍	12	1,0					
121505 R/N/L	❍	❍	●	❍	❍	❍	12	1,5	0,05				
122005 R/N/L	❍	●		❍	❍		12	2,0					
121000 R/N/L	❍	❍		❍	❍		12	1,0					
121500 R/N/L	❍	❍		❍	❍		12	1,5	0				
122000 R/N/L	❍	❍		❍	❍		12	2,0					
CTL 161005 R/N/L							16	1,0		23,1	8,3		SCT R101016 SCT R121216 SCT R161616
161505 R/N/L	❍	❍			❍		16	1,5	0,05				
162005 R/N/L	❍	❍	❍	❍	❍	❍	16	2,0					
161000 R/N/L							16	1,0					
161500 R/N/L	❍	❍		❍	❍		16	1,5	0				
162000 R/N/L	❍	❍		❍	❍		16	2,0					



Wide groove breaker for smooth chip evacuation

Surface Finish Comparison

Work Material:	X6Cr17 (ø8 mm)
Insert:	CTR 121005 R, (b =1,0 mm)
Cutting Data:	v_c = 45 m/min
	f = 0,02 mm/rev, Wet

● = Euro stock
○ = Japan stock

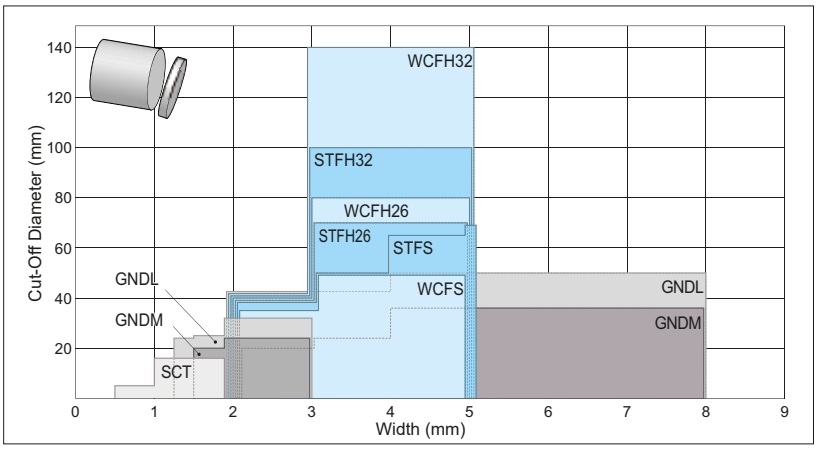
Characteristics

- Holders available in carbide (SumiGrip) and steel (SumiGrip JR).
- Capable on interrupted machining.
- Can be used for cut-off, grooving and chamfering applications.

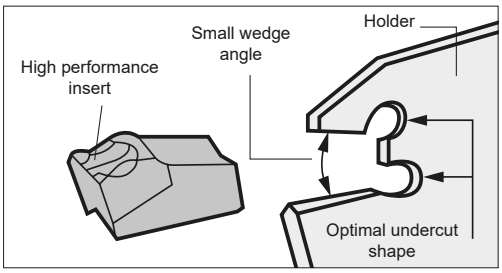
Type

- Tool block type
  STFH (steel) / WCFH (carbide)
- Shank type
  STFS (steel) / WCFS (carbide)

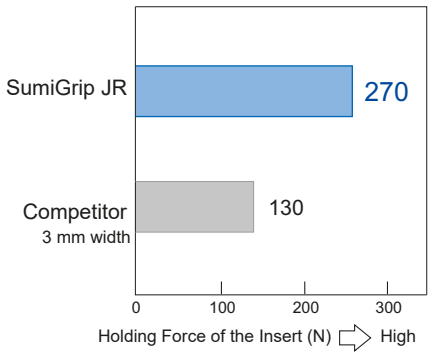
Cut-Off



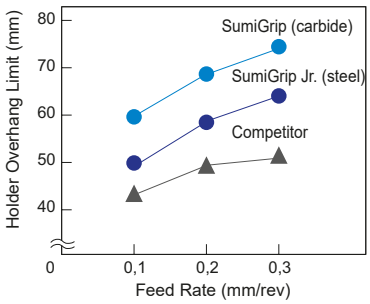
Features of Design



Twice the Insert Holding Force

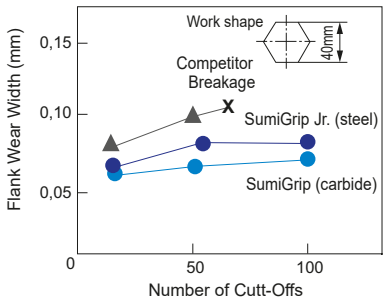


Low Vibration



Work Material: C45 (Ø 50 mm, 250 HB)
Insert: 3 mm width, coated carbide
Cutting Conditions: v_c = 80 m/min, dry

Wear Resistance



Work Material: C45 (hexagonal)
Insert: 3 mm width, coated carbide
Cutting Conditions: v_c = 150 m/min, f = 0,15 mm/rev, wet (water soluble)

GG Type/GF Type/CF Type Chipbreaker, Grade AC1030U

Utilizing grooving tool GND type chipbreaker series for excellent chip control.
Low cutting force chipbreaker GF type (neutral) or CF type (left or right handed) inserts, coupled with a carbide blade, enables stable machining and prevents chattering even when machining stainless steel.
Achieving stable and longer tool life with the new AC1030U grade.

GG	GF	CF
 Neutral	 Neutral	 L/R handed
General purpose	Exotic alloy, Low cutting force	Exotic alloy, Low cutting force

Performance (Chipbreaker)

Chip Control Capability


GF


GG

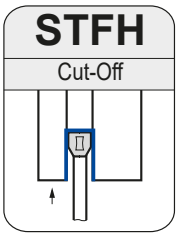

Conventional

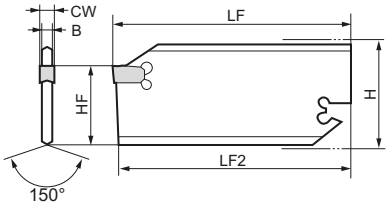
Work Material: X5CrMo17 12 2 (Ø 40 mm)
Cutting Conditions: v_c = 100 m/min, f = 0,1 mm/rev, wet

Sumi-Grip Jr.

Cut-Off (Steel Holder/Tool Block Type)

STFH
Cut-Off





Above figures show right hand tools.

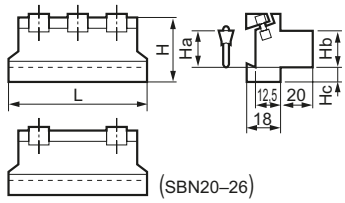
Holders

Cat. No.	Stock	Dimensions (mm) H	B	LF	HF	LF2	CW	Max. Cut-Off Dia.	Applicable Inserts	Applicable Tool Blocks	Wrench
STFH 26-2	●	26	1,6	109	21,4	108	2,0	40	WCF _ 2 _		
26-3	●	26	2,4	109	21,4	108	3,0	70	WCF _ 3 _	SBN 20-26	
26-4	●	26	3,4	109	21,4	108	4,0	70	WCF _ 4 _	SBU 20-26	
26-5	●	26	4,3	109	21,4	108	5,0	70	WCF _ 5 _		
STFH 32-2	●	32	1,6	149	25,0	148	2,0	40	WCF _ 2 _	SBN 20-32	SL 4
32-3	●	32	2,4	149	25,0	148	3,0	100	WCF _ 3 _	SBN 25-32	
32-4	●	32	3,4	149	25,0	148	4,0	100	WCF _ 4 _	SBU 20-32	
32-5	●	32	4,3	149	25,0	148	5,0	100	WCF _ 5 _	SBU 25-32	

Parts

Tool Blocks

SBN Type, One piece type

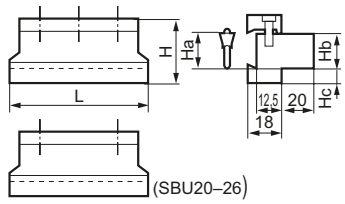


Cat. No.	Stock	Dimensions (mm) H	Ha	Hb	Hc	L	Applicable Carbide Blades
SBN 20-26	●	45	20	20	10,0	80	STFH 26_
SBN 20-32	●	50	20	20	13,5	100	STFH 32_
SBN 25-26	❑	48	25	25	10,0	80	STFH 26_
SBN 25-32	●	50	25	25	8,5	110	STFH 32_

Parts

Clamp	Screw	Wrench
		
BWS 30	WB 8-20	LH 040

SBU Type, Separate type



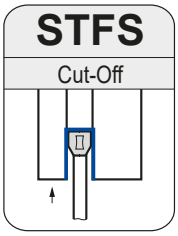
Cat. No.	Stock	Dimensions (mm) H	Ha	Hb	Hc	L	Applicable Carbide Blades
SBU 20-26	●	45	20	20	10,0	80	STFH 26_
SBU 20-32	●	50	20	20	13,5	100	STFH 32_
SBU 25-26	❑	48	25	25	10,0	80	STFH 26_
SBU 25-32	●	50	25	25	8,5	110	STFH 32_

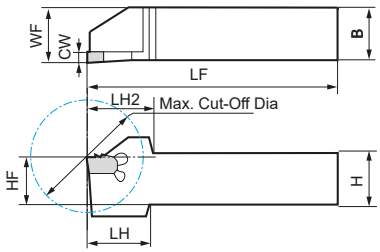
Wedge		
		
BCS 15	BCS 20	BCS 25
Screw	**Wrench**	
		
BX 0622	LH 050	

*Tool blocks selection guide see page F46

Cut-Off (Steel Holder/Shank Type)

STFS
Cut-Off





Parts

Holders

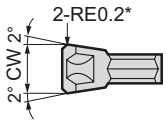
Cat. No.	Stock R	Stock L	Dimensions (mm) H	B	LF	WF	HF	LH	LH2	CW	Max. Cut-Off Dia.	Applicable Inserts	Wrench
STFS R/L 1010-2	❍		10	10	86	10	10	17	17	2,0	28		
R/L 1212-2	●	●	12	12	110	12	12	18	18	2,0	30	WCF _ 2 _	
R/L 1616-2	❍	❍	16	16	110	16	16	–	19	2,0	32		
R/L 2020-2	●	❍	20	20	125	20	20	–	24	2,0	40		
STFS R/L 1616-3	❍	●	16	16	110	16	16	20	22	3,0	35		
R/L 2012-3	❍	❍	20	12	110	12	20	–	24	3,0	40	WCF _ 3 _	
R/L 2020-3	●	●	20	20	125	20	20	–	30	3,0	50		
R/L 2525-3	●	●	25	25	150	25	25	–	30	3,0	50		
STFS R/L 2020-4	❍	●	20	20	125	20	20	–	33	4,0	55	WCF _ 4 _	SL 4
R/L 2525-4	●	❍	25	25	150	25	25	–	38	4,0	65		
STFS R/L 2020-5	❍	❍	20	20	125	20	20	–	35	5,0	60	WCF _ 5 _	
R/L 2525-5	❍	❍	25	25	150	25	25	–	40	5,0	70		

● = Euro stock
○ = Japan stock
❑ = Delivery on request

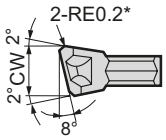
Sumi-Grip Jr. Inserts

Inserts

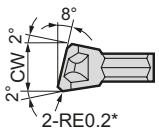
Neutral (N)



Right Handed (R)



Left Handed (L)



* WCF_2T: 2_RE=0,15

External Appearance	Cat. No.	AC830P	AC225	AC1030U	T1500A	A30	G10E	CW	Applicable Holder	
WCF N _ GG General purpose	WCF N2 GG	❍						2,0	STFH _ _ 2	STFS R/L _ _ _ _ 2
	N3 GG	●						3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	N4 GG	●						4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	N5 GG	❍						5,0	STFH _ _ 5	STFS R/L _ _ _ _ 5
WCF N _ GF Exotic alloy Low feed	WCF N2 GF			❍				2,0	STFH _ _ 2	STFS R/L _ _ _ _ 2
	N3 GF			❍				3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	N4 GF			❍				4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	N5 GF			❍				5,0	STFH _ _ 5	STFS R/L _ _ _ _ 5
WCF _ _ CF Exotic alloy Low feed	WCF R3 CF			❍				3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	L3 CF			❍				3,0		
	R4 CF							4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	L4 CF			❍				4,0		
WCF _ 2T Small diameter Low cutting force	WCF N2T	●						2,0	STFH _ _ 2	STFS R/L _ _ _ _ 2
	R2T	❍						2,0		
	L2T	❍						2,0		
WCF _ _ Without chip breaker General steel	WCF N3	●						3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	R3	●						3,0		
	L3	●						3,0		
	WCF N4	●						4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	R4	❍						4,0		
	L4	●						4,0		
	WCF N5	●						5,0	STFH _ _ 5	STFS R/L _ _ _ _ 5
	R5							5,0		
	L5	❍						5,0		
WCF _ _ A Exotic alloy Low feed	WCF N2A		●					2,0	STFH _ _ 2	STFS R/L _ _ _ _ 2
	WCF N3A	●	●		❍			3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	R3A		●					3,0		
	L3A		●					3,0		
	WCF N4A		●			❍		4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	R4A		●					4,0		
	L4A		●					4,0		
	WCF N5A		●					5,0	STFH _ _ 5	STFS R/L _ _ _ _ 5
	R5A		❍					5,0		
	L5A							5,0		
WCF _ _ B Cast iron Light alloys	WCF N3B						●	3,0	STFH _ _ 3	STFS R/L _ _ _ _ 3
	R3B						●	3,0		
	L3B						●	3,0		
	WCF N4B						●	4,0	STFH _ _ 4	STFS R/L _ _ _ _ 4
	R4B							4,0		
	L4B							4,0		
	WCF N5B						❍	5,0	STFH _ _ 5	STFS R/L _ _ _ _ 5
	R5B							5,0		
	L5B							5,0		

Note:
With the similar chip breaker style as for general steel (WCF _ _) but with smaller edge preparation.

Recommended Cutting Conditions

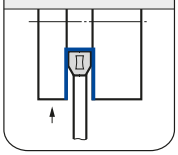
Work Material		Cutting Speed (m/min)					
		AC830P	AC225	AC1030U	T1500A	A30	G10
Steel	General Steel	80–200	80–200	50–200	80–200	50–120	–
	Soft Steel	100–230	100–230	50–230	100–230	70–150	–
	Die Steel	60–150	60–150	50–150	60–150	50–120	–
Stainless Steel		70–150	70–150	50–150	–	70–130	–
Cast Iron		–	–	50–200	–	–	50–120
Non-Ferrous Metal		–	–	200–500	–	–	200–500

Chip Breaker		Feed Rate (mm/rev)										
		Neutral						Left or Right Handed				
		GG	GF	Without Chip Breaker	T	A	B	Without Chip Breaker	CF	T	A	B
		General Purpose	Exotic Alloy Low Cutting Force	General Steel	Small Diam. Low Cutting Force	Exotic Alloy Low Feed	Cast Iron Light Alloys	General Steel	Exotic Alloy Low Cutting Force	Small Diam. Low Cutting Force	Exotic Alloy Low Feed	Cast Iron Light Alloys
Groove Width W (mm)	**2,0**	0,05–0,20	0,03–0,12	–	0,03–0,10	0,03–0,12	–	–	–	0,03–0,10	–	–
	3,0	0,08–0,25	0,04–0,15	0,08–0,25	–	0,04–0,15	0,05–0,15	0,08–0,25	0,08–0,12	–	0,04–0,15	0,05–0,15
	4,0	0,10–0,30	0,05–0,18	0,10–0,30	–	0,05–0,18	0,05–0,18	0,10–0,30	0,10–0,30	–	0,05–0,18	0,05–0,18
	5,0	0,10–0,35	0,05–0,20	0,10–0,30	–	0,05–0,20	0,06–0,20	0,10–0,20	0,10–0,30	–	–	0,06–0,20

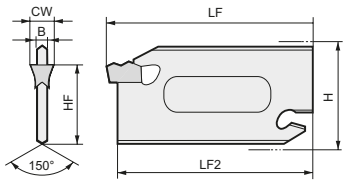
Sumi-Grip Series

Cut-Off (Carbide Holder/Tool Block Type)

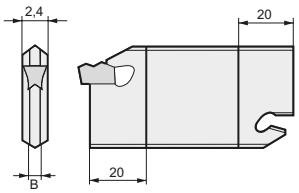
WCFH
Cut-Off



CW: 3 mm
4 mm
5 mm



CW: 2 mm



(WCFH 32-2)

Above figures show right hand tools.

■ Holders

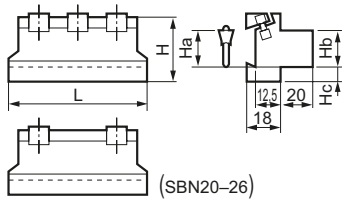
Cat. No.	Stock	Dimensions (mm)						Max. Cut-Off Dia.	Applicable Inserts	Applicable Tool Blocks	Wrench
		H	B	LF	HF	LF2	CW				
WCFH 26-2	●	26	1,7	110	21,4	109,0	2,0	40	WCF _ 2 _		SL 2
26-3	●	26	2,4	110	21,4	108,5	3,0	70	WCF _ 3 _	SBN 20-26	
26-4	●	26	3,4	110	21,4	108,5	4,0	70	WCF _ 4 _	SBU 20-26	SL 1
26-5	●	26	4,3	110	21,4	108,5	5,0	70	WCF _ 5 _		
WCFH 32-2	●	32	1,7	150	25,0	149,0	2,0	40	WCF _ 2 _	SBN 20-32	SL 2
32-3	●	32	2,4	150	25,0	148,5	3,0	100	WCF _ 3 _	SBN 25-32	
32-4	●	32	3,4	150	25,0	148,5	4,0	100	WCF _ 4 _	SBU 20-32	SL 1
32-5	●	32	4,3	150	25,0	148,5	5,0	100	WCF _ 5 _	SBU 25-32	

See F48 for applicable inserts.

■ Parts

■ Tool Blocks

SBN Type, Mono-block Type

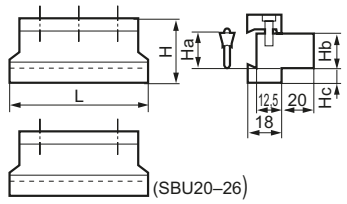


Cat. No.	Stock	Dimensions (mm)					Applicable Carbide Blades
		H	Ha	Hb	Hc	L	
SBN 20-26	●	45	20	20	10,0	80	WCFH 26_
SBN 20-32	●	50	20	20	13,5	100	WCFH 32_
SBN 25-26	❑	48	25	25	10,0	80	WCFH 26_
SBN 25-32	●	50	25	25	8,5	110	WCFH 32_

■ Parts

Clamp	Screw	Wrench
		
BWS 30	WB 8-20	LH 040

SBU Type, Separate Type



Cat. No.	Stock	Dimensions (mm)					Applicable Carbide Blades
		H	Ha	Hb	Hc	L	
SBU 20-26	●	45	20	20	10,0	80	WCFH 26_
SBU 20-32	●	50	20	20	13,5	100	WCFH 32_
SBU 25-26	❑	48	25	25	10,0	80	WCFH 26_
SBU 25-32	●	50	25	25	8,5	110	WCFH 32_

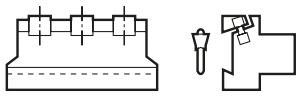
Wedge		
		
BCS 15	BCS 20	BCS 25

Screw	Wrench	
		
BX 0622	LH 050	

■ Tool Block Type Selection Guide

Tool Block (Mono-Block Type)

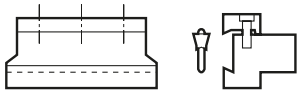
SBN Type



This tool block can be used for the machining tool post **A** shown on the right.

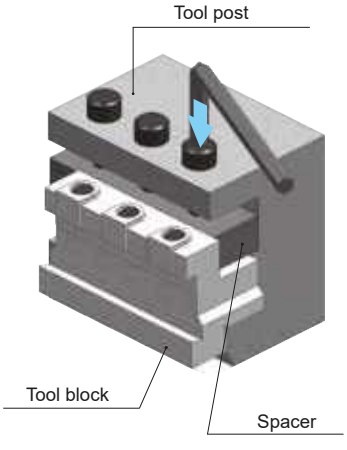
Tool Block (Separate Type)

SBU Type



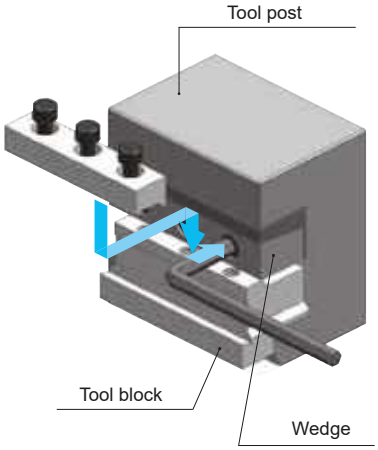
This tool block can be used for the machining tool posts **A** and **B** shown on the right.
Since the clamp is large it has a large scope even when the holder has a long overhang.

A General Purpose Lathe, etc.
SBN Type, SBU Type



(Overhead clamp)

B Turret Type Tool Post, etc.
SBU Type



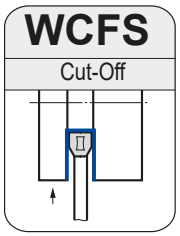
(Side clamp)

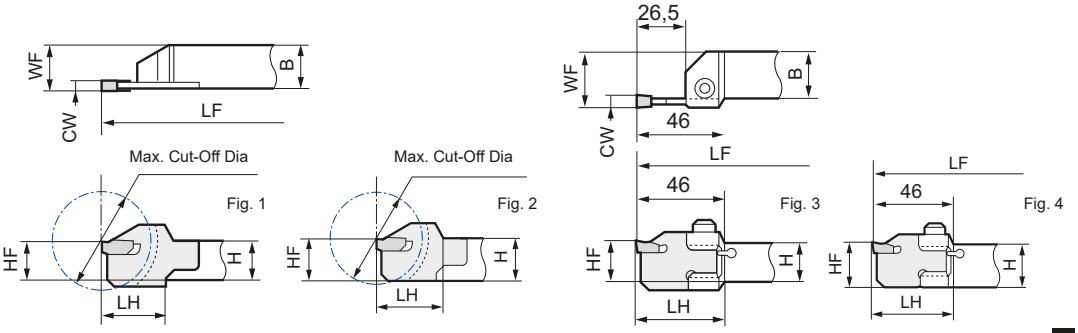
● = Euro stock
○ = Japan stock

❑ = Delivery on request

Cut-Off (Carbide Holder/Shank Type)

WCFS
Cut-Off





Above figures show right hand tools.

■ Holders

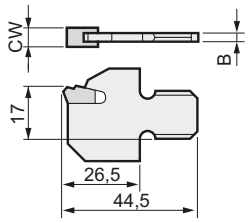
■ Parts

Cat. No.		Stock R	Stock L	H	B	LF	WF	HF	LH	CW	Max. Cut-Off Dia.	Applicable Blades	Applicable Inserts	Fig.	Wrench
Brazed Type	WCFS R/L 1010-2	●		10	10	86	10	10	10	2,0	28	–	WCF _ 2 _	1	SL 2
	R/L 1212-2	●		12	12	110	12	12	18	2,0	30	–	WCF _ 2 _	1	
	R/L 1616-2	❍	●	16	16	100	16	16	25	2,0	35	–	WCF _ 2 _	2	
	R/L 1616-3			16	16	100	16	16	25	3,0	35	–	WCF _ 3 _	2	SL 1
Clamp Type	WCFS R/L 20-3	●	●	20	20	125	23	20	46	3,0	50	WCFH17-3	WCF _ 3 _	3	SL 1
	R/L 20-4	●		20	20	125	24	20	46	4,0	50	WCFH17-4	WCF _ 4 _	3	
	R/L 20-5	❍		20	20	125	25	20	46	5,0	50	WCFH17-5	WCF _ 5 _	3	
	WCFS R/L 25-3	●	❍	25	25	150	28	25	46	3,0	50	WCFH17-3	WCF _ 3 _	4	
	R/L 25-4		❍	25	25	150	29	25	46	4,0	50	WCFH17-4	WCF _ 4 _	4	
	R/L 25-5		❍	25	25	150	30	25	46	5,0	50	WCFH17-5	WCF _ 5 _	4	

See F48 for applicable inserts.

Blade included in holder.

■ Blades



Cat. No.	Stock	Dimensions (mm) CW	Dimensions (mm) B	Applicable Blades
WCFH 17-3	●	3	2,4	WCFS R/L 20-3, 25-3
WCFH 17-4	●	4	3,4	WCFS R/L 20-4, 25-4
WCFH 17-5	●	5	4,3	WCFS R/L 20-5, 25-5

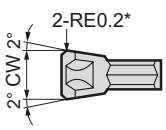
■ Parts

Cap Screw	Wrench	Applicable Holders
BX0622	LH050	All clamp type holders.

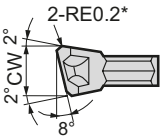
Sumi-Grip Inserts

■ Inserts

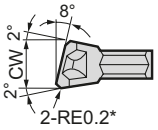
Neutral (N)



Right Handed (R)



Left Handed (L)



* WCF_2T: 2_RE=0,15

External Appearance	Cat. No.	AC830P	AC225	AC1030U	T1500A	A30	G10	CW	Applicable Holder	
WCF N _ GG General purpose	WCF N2 GG	❍						2,0	WCFH _ _ 2	WCFS R/L _ _ _ _ 2
	N3 GG	●						3,0	WCFH _ _ 3	WCFS R/L _ _ _ 3, WCFS R/L _ _ 3
	N4 GG	●						4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	N5 GG	❍						5,0	WCFH _ _ 5	WCFS R/L _ _ 5
WCF N _ GF Exotic alloy Low feed	WCF N2 GF			❍				2,0	WCFH _ _ 2	WCFS R/L _ _ _ _ 2
	N3 GF			❍				3,0	WCFH _ _ 3	WCFS R/L _ _ _ 3, WCFS R/L _ _ 3
	N4 GF			❍				4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	N5 GF			❍				5,0	WCFH _ _ 5	WCFS R/L _ _ 5
WCF _ _ CF Exotic alloy Low feed	WCF R3 CF			❍				3,0	WCFH _ _ 3	WCFS R/L _ _ _ _ 3
	L3 CF			❍				3,0		WCFS R/L _ _ 3
	R4 CF							4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	L4 CF			❍				4,0		
WCF _ 2T Small diameter Low cutting force	WCF N2T	●						2,0	WCFH _ _ 2	WCFS R/L _ _ _ _ 2
	R2T	❍						2,0		
	L2T	❍						2,0		
WCF _ _ Without chip breaker General steel	WCF N3	●						3,0	WCFH _ _ 3	WCFS R/L _ _ _ _ 3 WCFS R/L _ _ 3
	R3	●						3,0		
	L3	●						3,0		
	WCF N4	●						4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	R4	❍						4,0		
	L4	●						4,0		
	WCF N5	●						5,0	WCFH _ _ 5	WCFS R/L _ _ 5
	R5							5,0		
	L5	❍						5,0		
WCF _ _ A Exotic alloy Low feed	WCF N2A		●					2,0	WCFH _ _ 2	WCFS R/L _ _ _ _ 2
	WCF N3A	●	●		❍			3,0	WCFH _ _ 3	WCFS R/L _ _ _ _ 3 WCFS R/L _ _ 3
	R3A		●					3,0		
	L3A		●					3,0		
	WCF N4A		●			●		4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	R4A		●					4,0		
	L4A		●					4,0		
	WCF N5A		●					5,0	WCFH _ _ 5	WCFS R/L _ _ 5
	R5A		❍					5,0		
	L5A							5,0		
WCF _ _ B Cast iron Light alloys Note: With the similar chip breaker style as for general steel (WCF _ _) but with smaller edge preparation.	WCF N3B						●	3,0	WCFH _ _ 3	WCFS R/L _ _ _ _ 3 WCFS R/L _ _ 3
	R3B						●	3,0		
	L3B						●	3,0		
	WCF N4B						●	4,0	WCFH _ _ 4	WCFS R/L _ _ 4
	R4B							4,0		
	L4B							4,0		
	WCF N5B						❍	5,0	WCFH _ _ 5	WCFS R/L _ _ 5
	R5B							5,0		
	L5B							5,0		

■ Recommended Cutting Conditions

Work Material		Cutting Speed (m/min)					
		AC830P	AC225	AC1030U	T1500A	A30	G10
Steel	General Steel	80–200	80–200	50–200	80–200	50–120	–
	Soft Steel	100–230	100–230	50–230	100–230	70–150	–
	Die Steel	60–150	60–150	50–150	60–150	50–120	–
Stainless Steel		70–150	70–150	50–150	–	70–130	–
Cast Iron		–	–	50–200	–	–	50–120
Non-Ferrous Metal		–	–	200–500	–	–	200–500

Chip Breaker		Feed Rate (mm/rev)										
		Neutral						Left or Right Handed				
		GG	GF	Without Chip Breaker	T	A	B	Without Chip Breaker	CF	T	A	B
		General Purpose	Exotic Alloy Low Cutting Force	General Steel	Small Diam. Low Cutting Force	Exotic Alloy Low Feed	Cast Iron Light Alloys	General Steel	Exotic Alloy Low Cutting Force	Small Diam. Low Cutting Force	Exotic Alloy Low Feed	Cast Iron Light Alloys
Groove Width W (mm)	**2,0**	0,05–0,20	0,03–0,12	–	0,03–0,10	0,03–0,12	–	–	–	0,03–0,10	–	–
	3,0	0,08–0,25	0,04–0,15	0,08–0,25	–	0,04–0,15	0,05–0,15	0,08–0,25	0,08–0,12	–	0,04–0,15	0,05–0,15
	4,0	0,10–0,30	0,05–0,18	0,10–0,30	–	0,05–0,18	0,05–0,18	0,10–0,30	0,10–0,30	–	0,05–0,18	0,05–0,18
	5,0	0,10–0,35	0,05–0,20	0,10–0,30	–	0,05–0,20	0,06–0,20	0,10–0,20	0,10–0,30	–	–	0,06–0,20

● = Euro stock
○ = Japan stock

General Features

Sumitomo Electric has developed „TME“ external threading inserts with pitch ranges of 1,0–3,0 mm or 10–24 threads/inch and „TMI“ internal threading inserts with a pitch range of 1,0–3,0 mm.

The superior features of the new sintered threading inserts include an M-class tolerance and dimple shaped chip breaker. The M-class tolerance reduces insert cost by eliminating the need for expensive grinding.

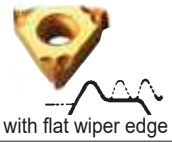
Furthermore, chip control is greatly improved as a result of the specially designed dimple chip breakers.

New Series of Indexable Inserts and Holders for Threading

For External Threading

For external thread

ISO-Metric 60°



TME with flat wiper edge

Pitch (mm)

1,0 1,25 1,5 1,75 2,0 2,5 3,0

TME without flat wiper edge

Pitch (mm)

1,0–2,0 , 1,5–3,0

Whitworth 55°

TWE without flat wiper edge

Number of threads / inch

14–10 , 24–16

LTER (Ø 20, Ø 25 mm)

(Lever lock system)

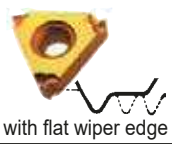
STER (Ø 12, Ø 16 mm)

(Screw on system)

For Internal Threading

For internal thread

ISO-Metric 60°



TMI with flat wiper edge

Pitch (mm)

1,0 1,25 1,5 1,75 2,0 2,5 3,0

TMI without flat wiper edge

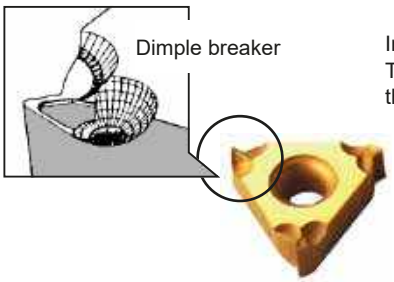
Pitch (mm)

1,0– 2,0 , 1,5–3,0

STIR (Ø 16, Ø 20 mm)

(Screw on system)

Threading Insert



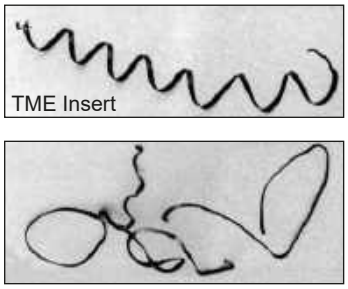
Indexable inserts
TME type for external threading

New sintered threading insert
with special dimple shaped chip breaker

■ General Features

- A positive rake angle encourages good chip control and reduces cutting resistance.
- Two tier dimple-style chip breakers evacuate chip smoothly and easily.
- M-class tolerance reduces insert cost.
- Four available grades cover a wider range of applications.
- The LTER type holder is designed for easy clamping and replacement.

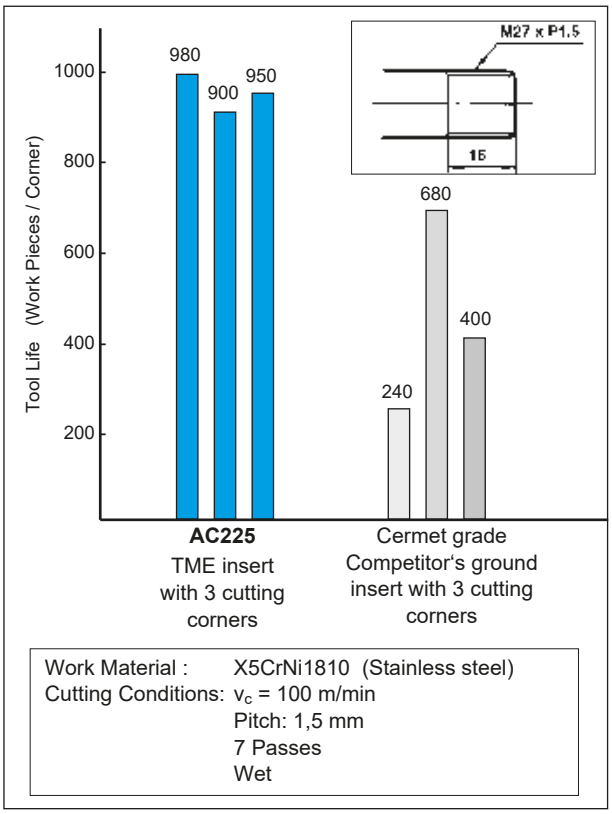
● Comparison of Chip Control



Competitor's ground insert

Work material: 25 CrMo 4
Cutting speed: 100 m/min
Pitch: 1,5 mm

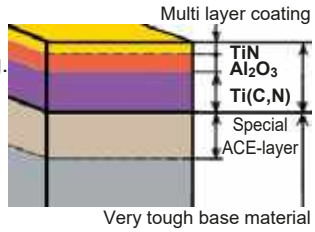
● Comparison of Tool Life



Work Material :	X5CrNi1810 (Stainless steel)
Cutting Conditions:	v_c = 100 m/min
	Pitch: 1,5 mm
	7 Passes
	Wet

■ Cutting Grades for Threading

AC225
The AC225 is a carbide insert with a 2 µm multiple-layer coating. This design results in improved toughness and adhesion resistance making this grade **suitable for stainless steel and general steel**.



Neue Cermet-Grade T130A

T130A
The T130A is a cermet grade containing high TiN with a uniform fine-grain microstructure which results in improved wear resistance and toughness.
Thus, the T130A **produces a goods surface finish**.

Cutting Conditions

■ Recommended Cutting Conditions

● Cutting Speed (m/min.)

Work material \ Grade	AC225	T1500A/T130A
Soft steel	150–170	100–150
Carbon steel	100–170	80–130
Alloy steel	90–150	80–120
Stainless steel	70–140	-

● Depth of Cut (Wiper Insert)

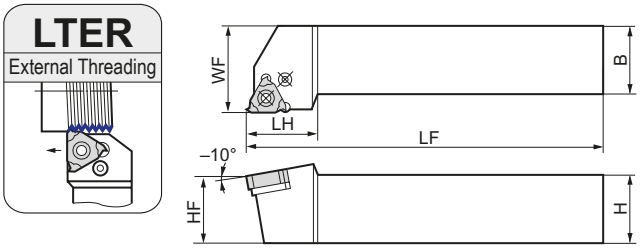
		Cat. No.	Pitch	Depth of Cut	Pass	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ISO-Metric 60°	External	TME 100R	1,00	0,68	5	0,20	0,16	0,14	0,11	0,07									
		TME 125R	1,25	0,82	6	0,20	0,18	0,15	0,12	0,10	0,07								
		TME 150R	1,50	0,96	7	0,22	0,18	0,14	0,13	0,12	0,10	0,07							
		TME 175R	1,75	1,12	8	0,22	0,19	0,16	0,14	0,13	0,12	0,09	0,07						
		TME 200R	2,00	1,25	8	0,25	0,21	0,18	0,16	0,15	0,13	0,10	0,07						
		TME 250R	2,50	1,55	10	0,27	0,24	0,20	0,18	0,16	0,13	0,11	0,10	0,09	0,07				
		TME 300R	3,00	1,86	12	0,28	0,25	0,20	0,19	0,17	0,15	0,13	0,12	0,10	0,10	0,09	0,07		
		TME 350R	3,50	2,25	13	0,30	0,27	0,24	0,22	0,20	0,18	0,16	0,15	0,14	0,12	0,11	0,09	0,07	
		TME 400R	4,00	2,57	14	0,35	0,32	0,29	0,26	0,23	0,20	0,17	0,15	0,14	0,12	0,10	0,09	0,08	0,07
	Internal	TMI 100R	1,00	0,63	5	0,18	0,16	0,12	0,10	0,07									
		TMI 125R	1,25	0,77	6	0,18	0,16	0,14	0,12	0,10	0,07								
		TMI 150R	1,50	0,90	7	0,20	0,16	0,14	0,13	0,11	0,09	0,07							
		TMI 170R	1,75	1,03	8	0,20	0,18	0,15	0,14	0,11	0,10	0,08	0,07						
		TMI 200R	2,00	1,18	8	0,22	0,19	0,17	0,15	0,14	0,13	0,11	0,07						
		TMI 250R	2,50	1,44	10	0,25	0,22	0,19	0,16	0,14	0,12	0,10	0,10	0,07	0,07				
		TMI 300R	3,00	1,70	12	0,27	0,24	0,20	0,17	0,14	0,12	0,10	0,10	0,10	0,09	0,06	0,07		

● Depth of Cut (Non Wiper Insert)

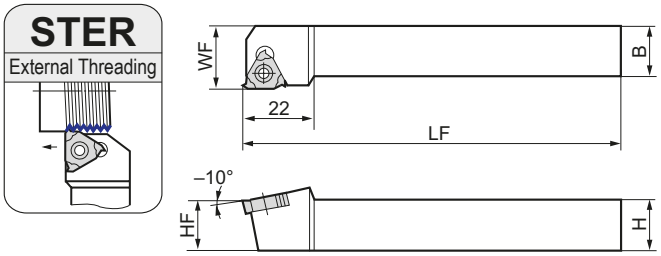
		Cat. No.	Radius	Pitch	Depth of Cut	Pass	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ISO-Metric 60°	External	TME 1020R	0,13	1,00	0,68	5	0,20	0,16	0,12	0,10	0,07									
				1,25	0,84	6	0,20	0,18	0,16	0,13	0,10	0,07								
				1,50	1,03	7	0,22	0,20	0,17	0,15	0,12	0,10	0,07							
				1,75	1,22	8	0,22	0,21	0,18	0,16	0,15	0,13	0,10	0,07						
				2,00	1,41	10	0,22	0,20	0,18	0,16	0,14	0,13	0,12	0,10	0,09	0,07				
		TME 1530R	0,20	1,50	0,95	7	0,22	0,17	0,14	0,13	0,12	0,10	0,07							
				1,75	1,14	8	0,22	0,18	0,15	0,14	0,13	0,12	0,09	0,07						
				2,00	1,33	9	0,25	0,20	0,18	0,16	0,15	0,13	0,10	0,09	0,07					
				2,50	1,71	12	0,25	0,22	0,19	0,17	0,15	0,14	0,13	0,12	0,10	0,09	0,08	0,07		
				3,00	2,09	14	0,25	0,22	0,20	0,20	0,18	0,17	0,15	0,14	0,14	0,10	0,10	0,09	0,08	0,07
	Internal	TMI 1020R	0,06	1,00	0,59	6	0,16	0,12	0,10	0,08	0,08	0,05								
				1,25	0,75	7	0,16	0,14	0,12	0,10	0,10	0,08	0,05							
				1,50	0,92	8	0,18	0,15	0,14	0,12	0,10	0,10	0,08	0,05						
				1,75	1,08	9	0,18	0,16	0,14	0,13	0,12	0,12	0,10	0,08	0,05					
				2,00	1,24	10	0,20	0,18	0,15	0,14	0,12	0,12	0,10	0,10	0,08	0,05				
		TMI 1530R	0,09	1,50	0,91	8	0,18	0,14	0,14	0,12	0,10	0,10	0,08	0,05						
				1,75	1,07	9	0,18	0,16	0,13	0,13	0,12	0,12	0,10	0,08	0,05					
				2,00	1,23	10	0,20	0,18	0,14	0,14	0,12	0,12	0,10	0,10	0,08	0,05				
				2,50	1,56	12	0,20	0,18	0,16	0,16	0,15	0,13	0,13	0,11	0,11	0,10	0,08	0,05		
				3,00	1,88	14	0,22	0,20	0,18	0,18	0,16	0,16	0,14	0,14	0,10	0,10	0,10	0,08	0,07	0,05

The shorter pitch, the slower speed. In case of non wiper insert or internal threading, passing time should be requested to increase.

LTER / STER Type



These figures show right hand tools.



These figures show right hand tools.

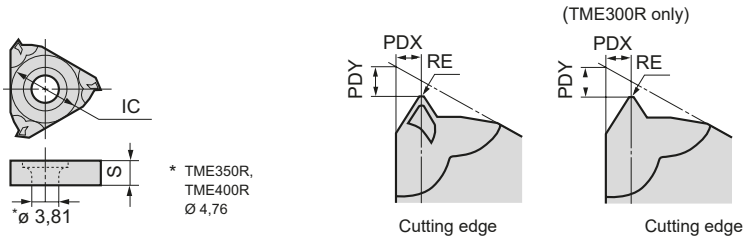
Holders with Lever Lock System

Cat. No.	Stock	Dimensions (mm)				
		H	HF	B	LF	WF
LTER 2020	●	20	20	20	125	25
LTER 2525	●	25	25	25	150	32
LTER 2525M22	❍	25	25	25	150	32
LTER 3232P22	❍	32	32	32	170	40

Holders with Screw on System

Cat. No.	Stock	Dimensions (mm)				
		H	HF	B	LF	WF
STER 1212	●	12	12	12	100	16
STER 1616	●	16	16	16	100	20

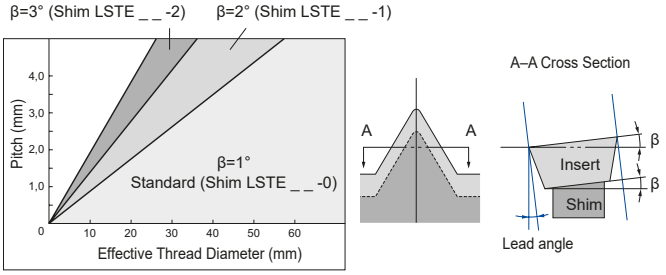
Inserts



Types	Cat. No.	Pitch		Stock			Dimensions (mm)						Applicable Holders	
		(mm)	Threads No./inch	AC225	T1500A	T130A	RE	PDX	PDY	IC	S			
60° Metric Thread	TME 100R	1,00	–	●	❍	●	0,11	0,8	1,2	9,525	3,65	(1)	LTER 2020 LTER 2525	STER 1212 STER 1616
	TME 125R	1,25	–	●	❍		0,15	0,8	1,2	9,525	3,65	(1)		
	TME 150R	1,50	–	●	❍	●	0,19	1,0	1,2	9,525	3,65	(1)		
	TME 175R	1,75	–	●		❍	0,22	1,2	1,2	9,525	3,65	(1)		
	TME 200R	2,00	–	●	❍	❍	0,26	1,4	1,2	9,525	3,65	(1)		
	TME 250R	2,50	–	●		❍	0,33	1,4	1,2	9,525	3,65	(1)		
	TME 300R	3,00	–	●			0,40	1,8	1,2	9,525	3,65	(1)		
	TME 350R	3,50	–				0,47	2,5	1,7	12,70	4,60	(1)	LTER 2525M22	
	TME 400R	4,00	–	❍	❍		0,54	2,5	1,7	12,70	4,60	(1)	LTER 3232P22	
	TME 1020R	1,00–2,00	24–12	●			0,11	1,1	1,2	9,525	3,65	(2)		
	TME 1530R	1,50–3,00	16–8	●			0,19	1,6	1,0	9,525	3,65	(2)	LTER 2020 LTER 2525	
55° Whitworth Thread	TWE 1410R	–	14–10				0,21	1,4	1,2	9,525	3,65	(3)		
	TWE 2416R	–	24–16				0,11	1,1	1,2	9,525	3,65	(3)		

Remarks: (1) TME100R–300R (ISO Thread), (2) TME1020R,1530R ISO Thread) without chamfer, (3) TWE1410R, 2416R (Whitworth Thread) without chamfer

LTER Type Holder Shim Selection



Spare Parts

Holder	Lever Pin	Screw	Shim	Shim pin	Wrench
					
LTER2020,2525	LCL3S	LCS3TE	LSTE31-0*)	LSP3	LH025
LTER2525M22, 3232P22	LCL4S	LCS4	LSTE42-0	LSP4	LH030

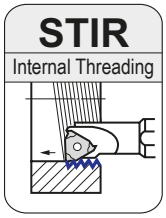
*) Remarks: LTER type has supplement of β =1° shim LSTE 31-0
Shims LSTE 31-1 for β = 2° and LSTE 31-2 for β = 3° are option.

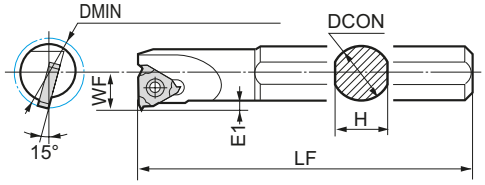
Spare Parts

Holder	Screw		Wrench
		N·m	
STER	BFTX03508	**2,0**	TRX 10

● = Euro stock
○ = Japan stock

N·m Recommended Tightening Torque (N·m)



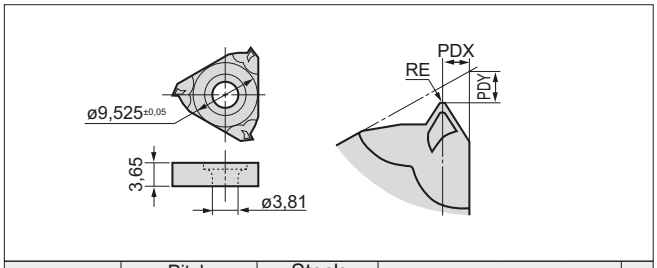


These figures show right hand tools.

■ Holders with Screw on System

Cat. No.	Stock	Dimensions (mm)					
		DCON	H	LF	E1	WF	DMIN
STIR 316	●	16	15	150	3,5	11	20
STIR 320	●	20	18	180	5,0	14	25

■ Inserts



Cat. No..	Pitch		Stock		Dimensions (mm)				
	(mm)	Threads No./inch	AC225	T1500A	RE	β	PDX	PDY	
TMI 100R	1,00	-	●	❍	0,04	60	0,8	1,2	
TMI 125R	1,25	-	❍		0,05	60	0,8	1,2	
TMI 150R	1,50	-	●		0,07	60	1,0	1,2	
TMI 175R	1,75	-			0,09	60	1,2	1,2	(1)
TMI 200R	2,00	-	●		0,10	60	1,4	1,2	
TMI 250R	2,50	-	●		0,14	60	1,4	1,2	
TMI 300R	3,00	-	●		0,18	60	1,8	1,2	
TMI 1020R	1,00–2,00	24–12			0,04	60	1,0	1,2	(2)
TMI 1530R	1,50–3,00	16–8	●		0,07	60	1,5	1,2	

Remarks: (1) TME100R–300R (ISO Thread)
(2) TME1020R,1530R (ISO Thread) without chamfer

■ Spare Parts

Holder	Screw		Wrench
		N·m	
STIR	BFTX03508	**2,0**	TRX 10