TurnLine

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TURNING

Insert B002

External Toolholder B180

Internal Toolholder B262

Miniature Machining B318

Threading B376

TurnLine - Insert

Negative type

Coated grades CVD/PVD, Cermet, Uncoated cemented carbides, Ceramic

B050

Posivite type

Coated grades CVD/PVD, Cermet, Uncoated cemented carbides, Ceramic

B104

CBN/PCD Insert

CBN (T-CBN), PCD (T-DIA)

B158

08

TurnLine - Designation system for Insert

● Conforms to “Indexable Inserts for Cutting Tools - Designation” (JIS B4120-1998, and ISO 1832 / AM1-1998)

❶ Shape

Symbol	Shape	Nose angle (degree)	Figure
H	Hexagonal	120°	
O	Octagonal	135°	
P	Pentagonal	108°	
S	Square	90°	
T	Triangular	60°	
C	Rhombic	80°	
D		55°	
E		75°	
F		50°	
G	G-shape (Tungaloy's symbol)	70°	
M	Rhombic	86°	
V		35°	
Y	Y-shape (Tungaloy's symbol)	25°	
W	Trigon	80°	
L	Rectangular	90°	
A	Parallelogram	85°	
B		82°	
K		55°	
R	Round	-	

Notes : With respect to the nose angles of rhombic and parallelogram shaped inserts, use the smaller angle respectively.

❷ 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
X	Special

❸ Accuracy

Symbol (class)	Tolerance (mm)		
	Corner height (m)	Thickness (s)	I. C. dia. (ød)
A	±0.005	±0.025	±0.025
F	±0.005	±0.025	±0.013
C	±0.013	±0.025	±0.025
H	±0.013	±0.025	±0.013
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
J	±0.005	±0.025	±0.005 ~ ±0.13
K	±0.013	±0.025	±0.05 ~ ±0.13
L	±0.025	±0.025	±0.05 ~ ±0.13
M	±0.08 ~ ±0.18	±0.13	±0.05 ~ ±0.13
N	±0.08 ~ ±0.18	±0.025	±0.05 ~ ±0.13
U	±0.13 ~ ±0.38	±0.13	±0.08 ~ ±0.25

	❶	❷	❸	❹	❺
	T	N	M	G	16
[Example]					
[Example]	C	C	G	T	09
	❶	❷	❸	❹	❺

❹ Groove and hole

Symbol	Hole	Shape of hole	Chip-breaker	Shape
N	Without	-	Without	
R			Single-sided	
F			Double-sided	
A	With	Cylindrical hole	Without	
M			Single-sided	
G			Double-sided	
W		Partly cylindrical hole, single-side 40° ~ 60° Counter sink	Without	
T			Single-sided	
Q		Partly cylindrical hole, double-side 40° ~ 60° Counter sink	Without	
U			Double-sided	
B		Partly cylindrical hole, single-side 70° ~ 90° Counter sink	Without	
H			Single-sided	
C		Partly cylindrical hole, double-side 70° ~ 90° Counter sink	Without	
J			Double-sided	
X	-	-	-	

❺ Cutting edge length

* R		S		C		W		T		D		V		K		I. C.dia. (mm)
Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	
		03	3.97	03	4.0			06	6.9	04	4.8					3.97
		04	4.76	04	4.8			08	8.2	05	5.8	08	8.3			4.76
*05	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
		05	5.56	05	5.6	03	3.8	09	9.6	06	6.8					5.56
*06	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
		06	6.35	06	6.5	04	4.3	11	11	07	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	09	9.7					7.94
*08	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
*10	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10
*12	12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
*16	16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
*20	20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
*25	25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
*32	32	–	–	–	–	–	–	–	–	–	–	–	–	–	–	32

* When M0 is included in Designation, the inscribed-circle diameter is metric size.

● Detailed accuracy for J,K,L,M,N and U classes

For inserts with nose corner angles larger than 55°

Unit: mm

Inscribed circle	Tolerance on inscribed circle dia. (ød)		Tolerance on corner height (m)		Insert shapes applied
	J,K,L,M,N (class)	U (class)	J,K,L,M,N (class)	U (class)	
6.35	±0.05	±0.08	±0.08	±0.13	H W O R P S T C,E,M
9.525					
12.7	±0.08	±0.13	±0.13	±0.2	
15.875	±0.1	±0.18	±0.15	±0.27	
19.05					
25.4	±0.13	±0.25	±0.18	±0.38	
31.75	±0.15	±0.25	±0.2	±0.38	
32					

For M-type inserts with nose corner angles of 55° (Shape: D), 35° (Shape: V), 25° (Shape: Y)

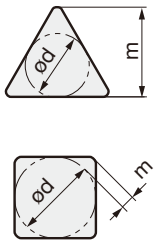
Unit: mm

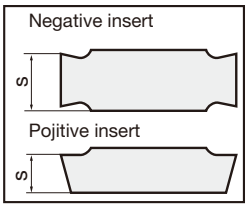
Inscribed circle	Tolerance on inscribed circle dia. (ød)	Tolerance on corner height (m)	Insert shapes applied
6.35	±0.05	±0.11	D
9.525			
12.7	±0.08	±0.15	
15.875	±0.1	±0.18	
19.05			
6.35	±0.05	±0.16	V Y
9.525			

Note on insert thickness

With regard to the insert thickness for chipbreaker inserts, the thickness (s) drawn in the outlined insert shapes on pages XX to XX is defined as "s" (height from the bottom face to the cutting edge) shown in the figure at right.

Inscribed circle (ød)
Corner height (m)





Symbol	Thickness (mm)
X1	1.39
01	1.59
T1	1.98(1.79)
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

⑥ Thickness

[Example]

⑥	⑦				⑩
04	08			-	TM
T3	04	F	N	-	JS
⑥	⑦	⑧	⑨		⑩

(Optional symbol) (Optional symbol) (Supplementary symbol)

⑦ Corner radius

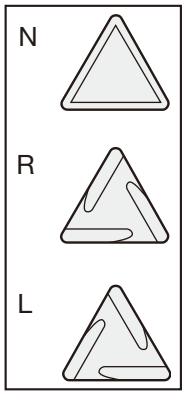
Symbol	Corner radius r_ε (mm)
00	0.03
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
28	2.8
32	3.2

⑧ Symbols of major cutting edge

Symbol	Condition of cutting edge	Shape
F	Sharp edge	
E	Honed rounded edge	
W.T	Honed chamfered edge	
S	Combination honed edge	

⑨ Hand of insert

Symbol	Hand
R	Right
L	Left
N	Neutral



⑩ Chipbreakers

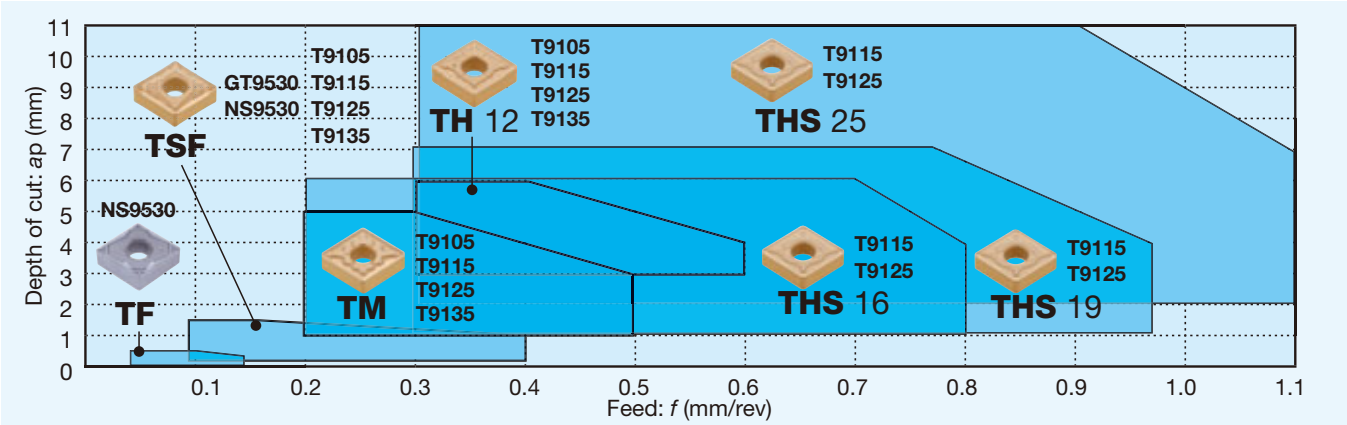
Symbol	Applications	Symbol	Applications
01(TF)	Precision finishing (Basic selection)	CB	Medium cutting
TS	Finishing (Basic selection)	CM	Medium cutting of cast irons
TSF	Finishing (Basic selection)	All-round	Medium cutting
TM	Medium cutting (Basic selection)	A	Finishing (Right and left hand)
THS	Medium to heavy cutting (Basic selection)	B	Finishing (Right and left hand)
TRS	Medium to heavy cutting	C	Finishing (Right and left hand)
TUS	Heavy cutting	D	Finishing (Right and left hand)
DM	Medium cutting	P	Finishing of Aluminium alloys
HRF	Finishing	W	Finishing (Angular type)
HRM	Finishing to medium cutting	PSF	Finishing (Positive type)
HMM	Medium cutting	PSS	Finishing to light cutting (Positive insert)
SF	Finishing of stainless steels	PS	Finishing to medium cutting (Positive type Basic selection)
SS	Finishing of stainless and mild steels	PM	Medium cutting (Positive type)
SM	Medium cutting of stainless steels	AL	Finishing to medium cutting of aluminium alloys
S	Medium cutting of stainless steels	RS	Medium cutting (For round inserts)
SH	Medium to heavy cutting of stainless steels	W□□	Finishing (Angular type)
SA	For heat-resisting alloys and stainless steels	H□□	Finishing (Parallel)
ZF	Finishing and copying	11	Finishing
ZM	Finishing to medium cutting and copying	61	Small depth of cut and high feed (For round inserts)
NS	Finishing and copying	S1	Finishing (For KNMX type)
NM	Finish to medium cutting and copying	J08,J10	For small lathes
AS	Small depth of cut and high feed	JS	For small lathes
AM	Small depth of cut and high feed	JRP	For small lathes
FW	Finishing (Wiper type)	JPP	For small lathes
SW	Finishing to medium cutting (Wiper type)	JSP	For small lathes
AFW	Small depth of cut and high feed (Wiper type Inserts)		
ASW	Small depth of cut and high feed (Wiper type Inserts)		

TurnLine - Chipbreaker Guide

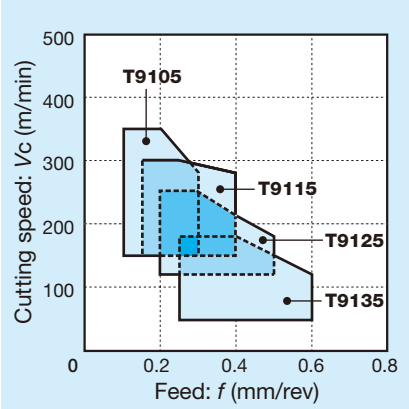
BASIC CHIPBREAKERS: NEGATIVE INSERTS

P Steel

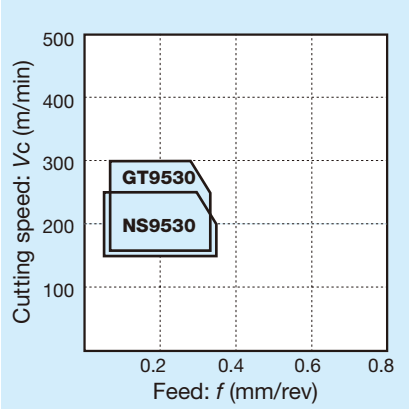
Chipbreaker System for Turning (Negative Inserts)

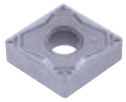


CVD coated grades



Coated cermets / Cermets



Chipbreaker	Appearance	Features
TF		The sharp cutting edge and raised projection near corner contribute to excellent chip control at very small depths of cut and low feeds. Economical M-class tolerance and low cost.
TSF		First choice chipbreaker for finishing steels. The dimple structure decreases the contact area between the insert surface and chips, resulting in significant reduction of heat occurrence.

Chipbreaker	Appearance	Features
TM		General purpose chipbreaker used for medium cutting. Unique chipbreaker geometry with sharp edges and large rake angle assures free cutting action in a wide range of cutting conditions.
TH		Double-sided 3-dimensional chipbreaker with a wide land and broad groove used for medium to heavy cutting including interruption and unfavorable surface conditions. Also performs well in high feed machining.
THS		Excellent chip control in a broad range of depth of cut. Strong cutting edge being suitable for interrupted and high feed operations.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min) Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	Continuous to light interrupted	TF	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	100 - 250	100 - 200
	Finishing	Continuous to light interrupted	TSF	GT9530	0.2 - 1.5	0.08 - 0.4	150 - 300	80 - 250	80 - 200
		Heavy interrupted	TSF	T9125	0.2 - 1.5	0.08 - 0.4	120 - 250	80 - 200	80 - 150
	Medium cutting	Continuous to heavy interrupted	TM	T9105	1.0 - 5.0	0.2 - 0.5	180 - 350	180 - 350	180 - 300
			TM	T9115	1.0 - 5.0	0.2 - 0.5	150 - 300	150 - 300	120 - 250
			TM	T9125	1.0 - 5.0	0.2 - 0.5	120 - 250	80 - 200	80 - 150
			TM	T9135	1.0 - 5.0	0.2 - 0.5	50 - 180	50 - 150	50 - 120
	Medium to heavy cutting	Continuous to heavy interrupted	TH	T9105	3.0 - 6.0	0.3 - 0.6	180 - 350	180 - 350	180 - 300
			TH	T9115	3.0 - 6.0	0.3 - 0.6	150 - 300	150 - 300	120 - 250
			TH	T9125	3.0 - 6.0	0.3 - 0.6	120 - 250	80 - 200	80 - 150
			TH	T9135	3.0 - 6.0	0.3 - 0.6	50 - 180	50 - 150	50 - 120

Low carbon steels, Alloy steels: C10, 18CrMo4, E275A, 20Cr4, etc. Medium carbon steels, Alloy steels: C45, 42CrMo4, etc.
High carbon steels, Alloy steels: 41CrNiMo2, etc.

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

P Steel

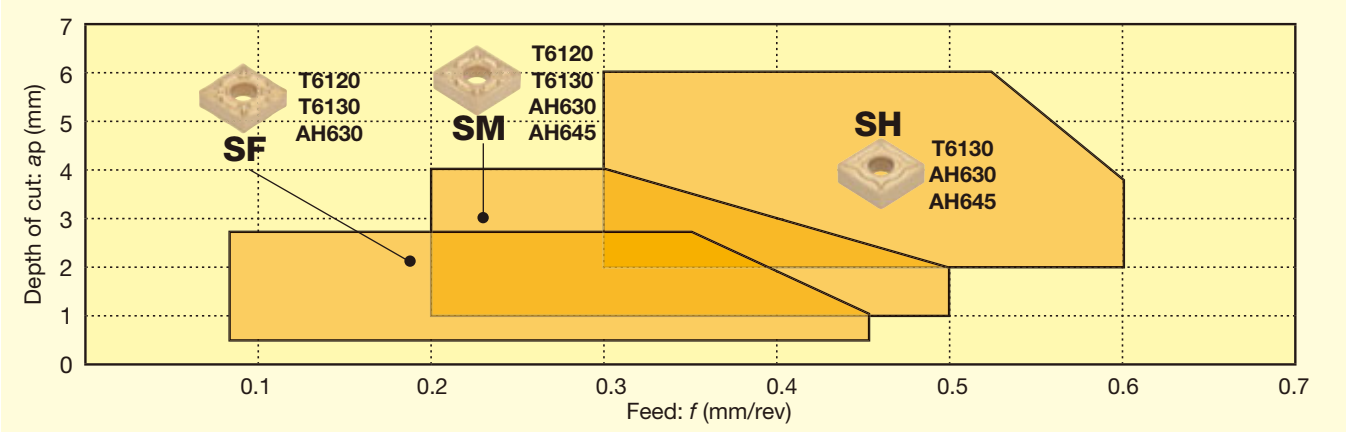
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic: TF NS9530 → Wear: 01 GT9530	Basic: TF NS9530 → Fracture: TSF GT9530	
Finishing [a_p = 0.3 ~ 1.5 mm]	Basic: TSF GT9530 → Chip control: ZF GT9530	Basic: TSF GT9530 → Fracture: TSF T9115	Basic: TSF T9125 → Fracture: TSF T9135
Medium cutting [a_p = 1.0 ~ 4.0 mm]	Basic: TM T9115 → Wear: TM T9105; Chip control: ZM T9115	Basic: TM T9125 → Fracture: TM T9135; Wear: TM T9115	Basic: TM T9135 → Fracture: DM T9135
Medium to heavy cutting [a_p = 3.0 ~ 6.0 mm]	Basic: TH T9115 → Wear: TH T9105; Chip control: TM T9115	Basic: TH T9125 → Fracture: TH T9135; Wear: TH T9115	Basic: TH T9135 → Fracture: TUS T9135

TurnLine - Chipbreaker Guide

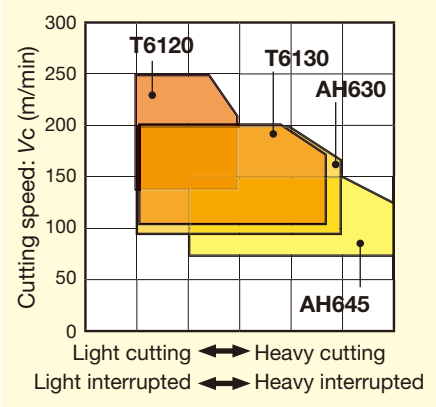
BASIC CHIPBREAKERS: NEGATIVE INSERTS

M Stainless Steel

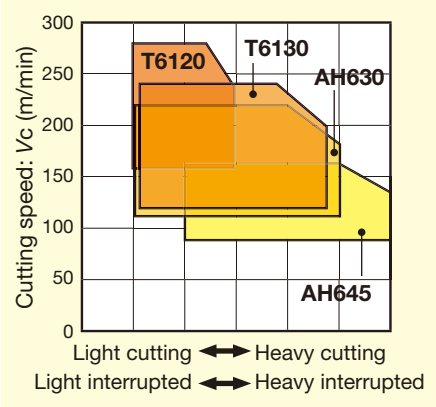
Chipbreaker System for Turning



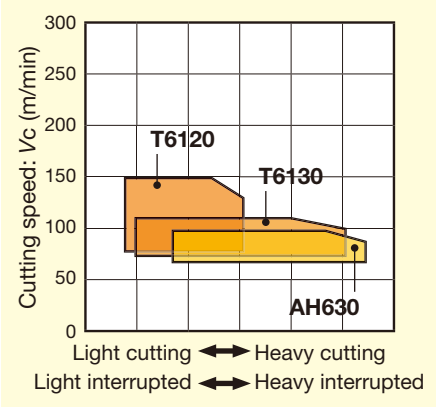
Austenitic stainless steel



Ferritic / martensite stainless steel



Precipitation hardened stainless steel



Chipbreaker	Appearance	Features
SF		Exellent chip control when finish cutting. Outstanding chip control when high feed turning at small depth of cut.
SH		Suitable for roughing operations and interrupted machining with tough cutting edges.

Chipbreaker	Appearance	Features
SM		Applicable to a wide range of cutting condition with sharp edge. Recommended chipbreaker for stainless steel turning.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chipbreaker	Grade	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed Vc (m/min)
M	Finishing	Continuous	SF	T6120	0.5 - 2.5	0.08 - 0.45	140 - 240
		Continuous to light interrupted	SF	T6130	0.5 - 2.5	0.08 - 0.45	100 - 200
		Heavy interrupted	SF	AH630	0.5 - 2.5	0.08 - 0.45	90 - 190
	Medium cutting	Continuous	SM	T6120	1.0 - 4.0	0.2 - 0.5	140 - 240
		Continuous to light interrupted	SM	T6130	1.0 - 4.0	0.2 - 0.5	100 - 200
		Light interrupted	SM	AH630	1.0 - 4.0	0.2 - 0.5	90 - 190
		Heavy interrupted	SM	AH645	1.0 - 4.0	0.2 - 0.5	70 - 150
	Medium to heavy cutting	Continuous to light interrupted	SH	T6130	2.0 - 6.0	0.3 - 0.6	100 - 200
		Light interrupted	SH	AH630	2.0 - 6.0	0.3 - 0.6	90 - 190
		Heavy interrupted	SH	AH645	2.0 - 6.0	0.3 - 0.6	70 - 150

Stainless steels: X5CrNi18-9, X5CrNiMo17-12-3, etc.

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

M Stainless Steel

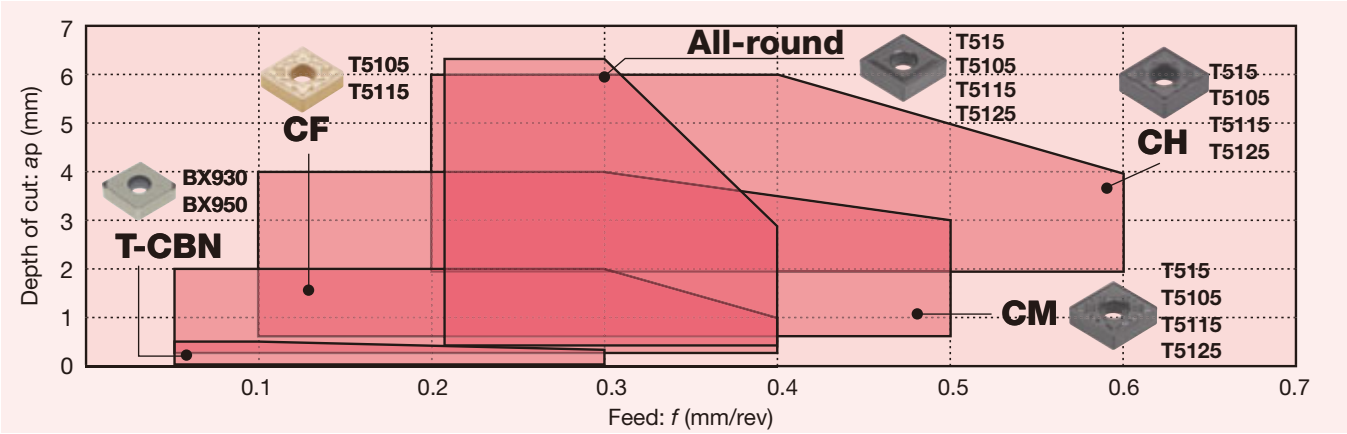
	Continuous	Light interrupted	Heavy interrupted
Finishing [a_p = 0.5 ~ 1.5 mm]	Basic: **SF T6120** Fracture → **SF T6130**	Basic: **SF T6130** Fracture → **SF AH630** Wear → **SF T6120**	Basic: **SF AH630** Fracture → **SF AH645** Wear → **SF T6130**
Medium cutting [a_p = 1.0 ~ 4.0 mm]	Basic: **SM T6130** Wear → **SM T6120** Chip control → **SF T6130**	Basic: **SM AH630** Fracture → **SM AH645** Wear → **SM T6130**	Basic: **SM AH645** Fracture → **SH AH645**
Medium to heavy cutting [a_p = 2.0 ~ 6.0 mm]	Basic: **SH T6130** Fracture → **SH AH630** Wear → **SH T6120** Chip control → **SM T6130**	Basic: **SH AH630** Fracture → **SH AH645** Wear → **SH T6130**	Basic: **SH AH645** Wear → **SH AH630**

TurnLine - Chipbreaker Guide

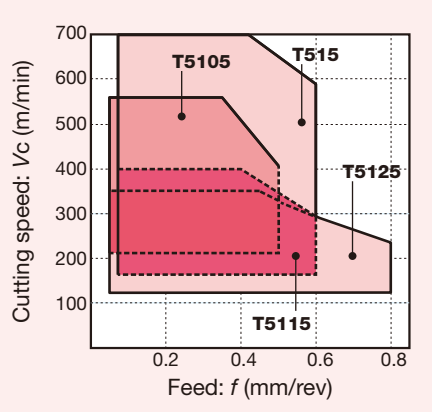
BASIC CHIPBREAKERS: NEGATIVE INSERTS

K Cast Iron

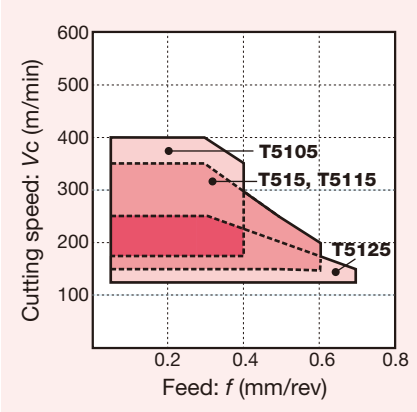
Chipbreaker System for Turning (Negative Inserts)



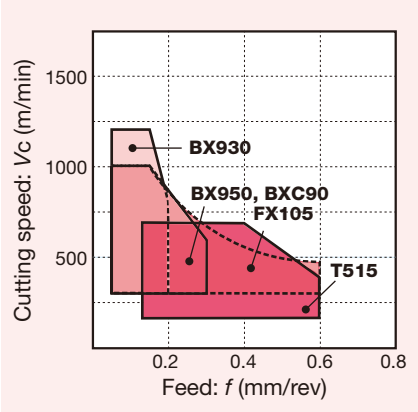
Grey cast irons

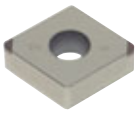
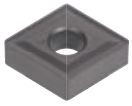


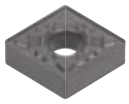
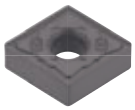
Ductile cast irons



High speed cutting: for grey cast irons



Chip-breaker	Appearance	Features
No chip-breaker (T-CBN)		T-CBN inserts. Performs well in high speed finishing of cast iron.
CF		Low cutting force chipbreaker for cast iron. Combined with an arc-shaped concave and a high rake (substantially 20° rake angle), allows drastically reducing cutting forces and suppressing the deformation of thin walled components and burr occurrence.
All-round		Highly reliable chipbreaker for medium cutting under a wide range of conditions from continuous to interrupted cutting.

Chip-breaker	Appearance	Features
CM		First choice chipbreaker for cast iron. An all around chipbreaker, which is applicable for a wide range of cutting conditions from continuous to interrupted machining with the positive land and wide chip pocket
CH		Chipbreaker with reinforced cutting-edge for cast iron. Utilizing the land support and negative land design, features stable insert seating and high cutting edge strength even in heavy cutting.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min)	
							Grey cast irons	Ductile cast irons
K	High speed cutting	Continuous	Without	BX930	0.05 - 0.5	0.05 - 0.2	300 - 1200	100 - 500
		Light interrupted	Without	BX950	0.05 - 0.5	0.05 - 0.3	300 - 1000	100 - 300
		Continuous	Without	BXC90	0.08 - 3.0	0.05 - 0.4	300 - 1000	100 - 300
	Finishing	Continuous	CF	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Light interrupted	CF	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Continuous	CM	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
	Medium cutting	Continuous	AR	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Light interrupted	CM	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Continuous	CH	T515	3.0 - 6.0	0.2 - 0.6	150 - 700	140 - 370
	Heavy cutting	Continuous	CH	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Light interrupted	CH	T515	1.0 - 5.0	0.1 - 0.5	150 - 700	140 - 370
		Continuous	CH	T515	3.0 - 6.0	0.2 - 0.6	150 - 700	140 - 370

Grey cast irons: 250, etc. Ductile cast irons: 450-10S, etc.

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

K Cast Iron

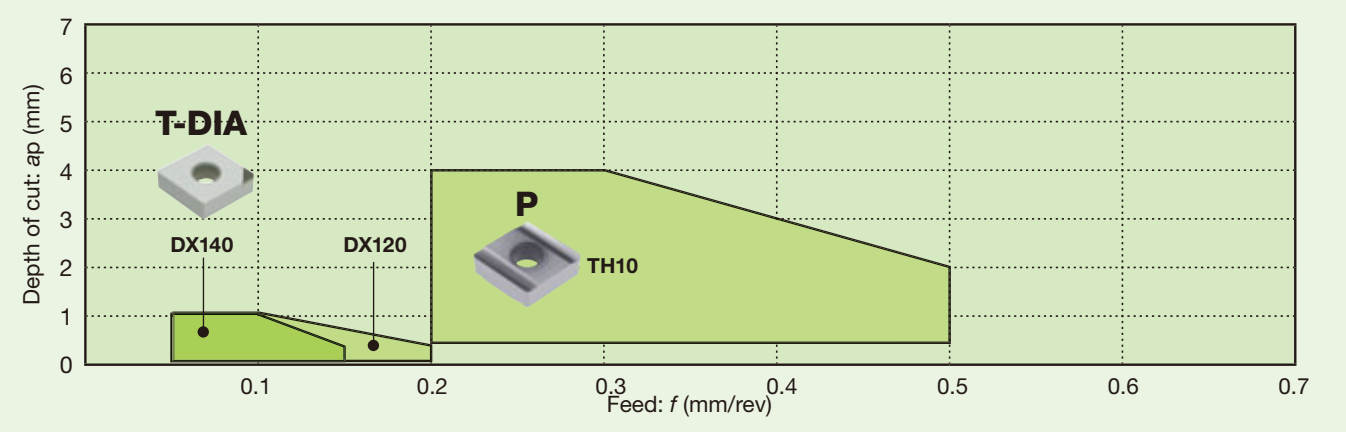
	Continuous	Light interrupted	Heavy interrupted
Finishing [a_p = 0.5 ~ 2.0 mm]	Basic: All-round T515 Wear → All-round T5105 Burr occurrence → CF T5105	Basic: All-round T515 Wear → All-round T5105 Fracture → CH T515 Burr occurrence → CF T5115	Basic: CH T515 Wear → CH T5105 Fracture → CH T5125 Burr occurrence → All-round T515
Medium cutting [a_p = 1.0 ~ 5.0 mm]	Basic: All-round T515 Wear → All-round T5105 Burr occurrence → CF T5105	Basic: All-round T515 Wear → All-round T5105 Fracture → CH T515 Burr occurrence → CF T5115	Basic: CH T515 Wear → CH T5105 Fracture → CH T5125 Burr occurrence → All-round T515
Medium to heavy cutting [a_p = 3.0 ~ 6.0 mm]	Basic: All-round T515 Wear → All-round T5105 Burr occurrence → CF T5105	Basic: All-round T515 Wear → All-round T5105 Fracture → CH T515 Burr occurrence → CF T5115	Basic: CH T515 Wear → CH T5105 Fracture → CH T5125 Burr occurrence → All-round T515

TurnLine - Chipbreaker Guide

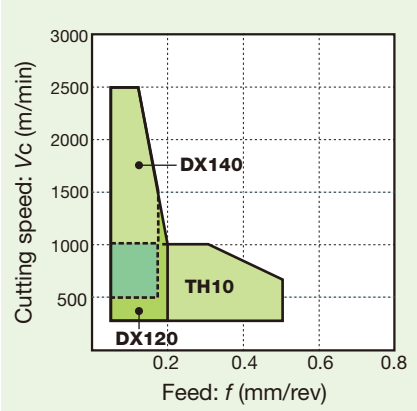
BASIC CHIPBREAKERS: NEGATIVE INSERTS

N Non-ferrous Metal

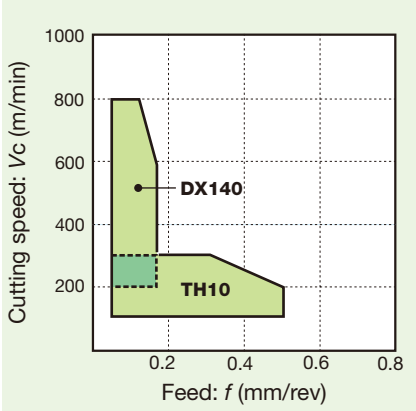
Chipbreaker System for Turning (Negative Inserts)



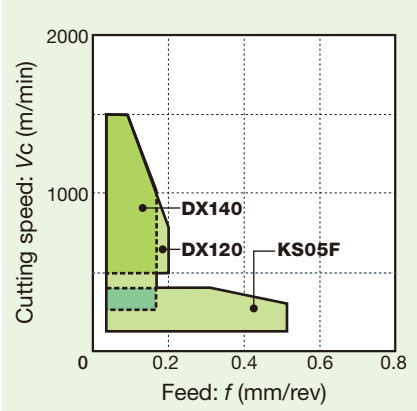
Aluminium alloys (Si < 12%)

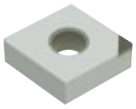
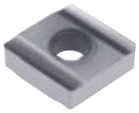


Aluminium alloys (Si ≥ 12%)



Copper alloys



Chip-breaker	Appearance	Features
No chip-breaker (T-DIA)		Performs well in high speed finishing of non-ferrous materials.
P		Excels in sharpness of cutting edges and effectively used for machining non-ferrous metals such as aluminium alloys and copper alloys.

Chip-breaker	Appearance	Features
With chip-breaker (T-DIA)		The wide chipbreaker width contributes to excellent chip control.

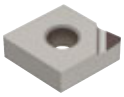
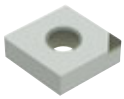
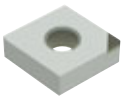
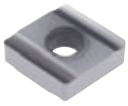
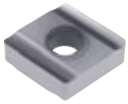
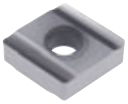
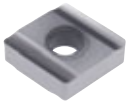
STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min) Aluminium alloys (Si < 12%)	Aluminium alloys (Si > 12%)	Copper alloys
N	Precision finishing	Continuous	With	DX120	0.05 - 0.5	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		Light interrupted	Without	DX140	0.05 - 0.5	0.05 - 0.20	300 - 2500	-	500 - 1500
	Finishing	Continuous	Without	DX140	0.05 - 2.0	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		Light interrupted	Without	DX140	0.05 - 2.0	0.05 - 0.15	300 - 1800	400 - 600	400 - 1200
		Heavy interrupted	P	TH10	0.5 - 4.0	0.2 - 0.5	100 - 500	100 - 200	100 - 200
	Medium cutting	Continuous	P	TH10	0.5 - 4.0	0.2 - 0.5	100 - 1000	100 - 300	100 - 300
		Light interrupted	P	TH10	0.5 - 4.0	0.2 - 0.5	100 - 800	100 - 200	100 - 200
		Heavy interrupted	P	TH10	0.5 - 4.0	0.2 - 0.5	100 - 500	100 - 200	100 - 200

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

N Non-ferrous Metal

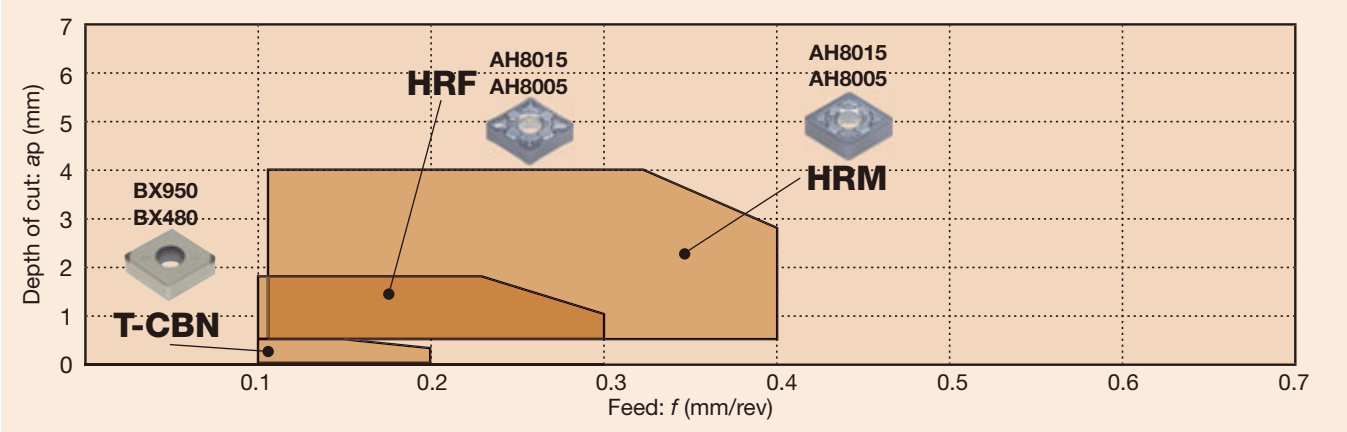
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic:  With chipbreaker **DX120** → Wear → **T-DIA DX140**	Basic: **T-DIA DX140** → Surface → With chipbreaker T-DIA **DX120**; Wear → **T-DIA DX160**	
Finishing [a_p = 0.5 ~2.0 mm]	Basic:  **T-DIA DX140** → Surface → With chipbreaker T-DIA **DX120**; Wear → **T-DIA DX160**	Basic:  **T-DIA DX140** → Fracture → **P TH10**; Wear → **T-DIA DX160**	Basic:  **P TH10**
Medium cutting [a_p = 1.0 ~ 4.0 mm]	Basic:  **P TH10** → Wear → **T-DIA DX140**	Basic:  **P TH10** → Wear → **T-DIA DX140**	Basic:  **P TH10**

TurnLine - Chipbreaker Guide

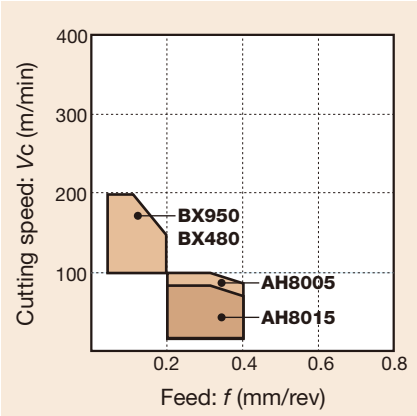
BASIC CHIPBREAKERS: NEGATIVE INSERTS

S Superalloys and titanium

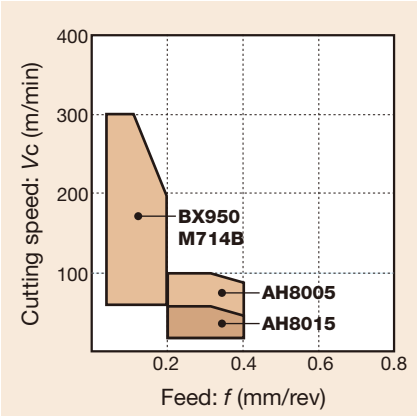
Chipbreaker System for Turning (Negative Inserts)



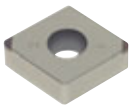
Titanium alloys



Ni-base alloys



Chipbreaker	Appearance	Features
HRF		Suitable for finishing operation of superalloys. Special protrusion provides excellent chip control in lower depth of cut.
HRM		The 1st recommended chipbreaker for supperalloy turning. Optimized geometry provides stable chip control in various depth of cut.

Chipbreaker	Appearance	Features
No chip-breaker (T-CBN)		T-CBN inserts. Performs well in finishing of heat-resistant or titanium alloys.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min)	
							Titanium alloys	Ni-base alloys
S	Precision finishing	Continuous	Without	BX950	0.1 - 0.5	0.05 - 0.2	100 - 200	70 - 300
			Without	M714B	0.1 - 0.5	0.05 - 0.2	-	70 - 400
		Light interrupted	Without	BX480	0.1 - 0.5	0.05 - 0.2	100 - 200	-
	Finishing to Medium cutting	Continuous	HRF	AH8005	0.5 - 1.5	0.05 - 0.25	20 - 100	20 - 100
		Light interrupted	HRF	AH8015	0.5 - 1.5	0.05 - 0.25	20 - 80	20 - 50
		Heavy interrupted	HRF	AH8015	0.5 - 1.5	0.05 - 0.25	10 - 60	10 - 40
	Finishing	Continuous	HRM	AH8005	0.5 - 4.0	0.1 - 0.4	20 - 100	20 - 100
		Light interrupted	HRM	AH8015	0.5 - 4.0	0.1 - 0.4	20 - 80	20 - 50
		Heavy interrupted	HRM	AH8015	0.5 - 4.0	0.1 - 0.4	10 - 60	10 - 40

Ni-base alloys: INCONEL718, etc.
Titanium alloys: Ti-6Al-4V, etc

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

S Superalloys and titanium

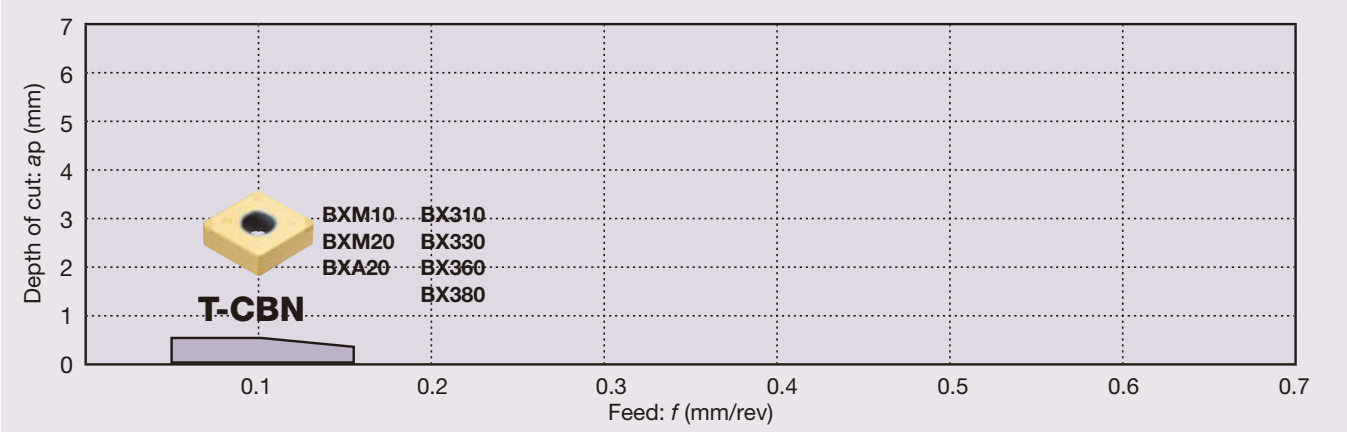
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic: **T-CBN BX950**	Basic: **T-CBN BX480** → Fracture → No chipbreaker **TH10**	
Finishing [a_p = 0.5 ~ 1.5 mm]	Basic: **HRF AH8005** → Fracture → **HRF AH8015**	Basic: **HRF AH8015** → Fracture → **HRM AH8015**; → Wear → **HRF AH8005**	Basic: **HRF AH8015** → Fracture → **HRM AH8015**; → Wear → **HRF AH8005**
Medium cutting [a_p = 0.5 ~ 4.0 mm]	Basic: **HRM AH8005** → Fracture → **HRM AH8015**; → Chip control → **HRF AH8015**	Basic: **HRM AH8015** → Fracture → **SM AH630**; → Wear → **HRM AH8005**	Basic: **HRM AH8015** → Fracture → **SM AH630**; → Wear → **HRF AH8005**

TurnLine - Chipbreaker Guide

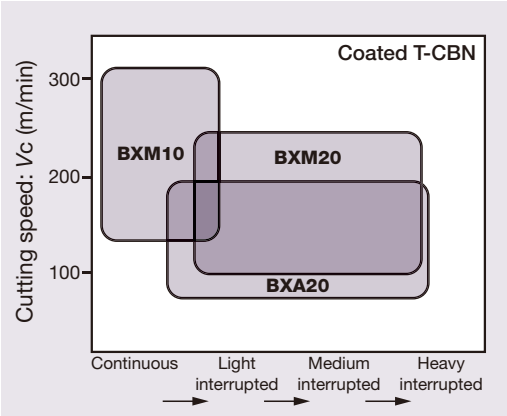
BASIC CHIPBREAKERS: NEGATIVE INSERTS

H Hard Materials

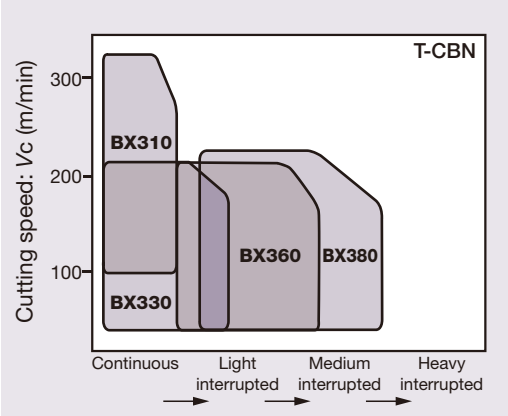
Chipbreaker System for Turning (Negative Inserts)

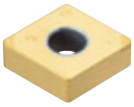


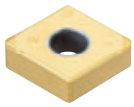
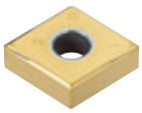
Coated T-CBN



T-CBN



Chipbreaker	Appearance	Features
No chip-breaker (T-CBN)		Performs well in finishing of hardened steel.

Chipbreaker	Appearance	Features
HF		When used in removing a carburized layer, excels in chip control at small depth of cut.
HM		When used in removing a carburized layer, excels in chip control at large depth of cut.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chipbreaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed *Vc* (m/min)
H	Precision finishing	Continuous to light interrupted	Without	BXM10 BXA20	0.05 - 0.3	0.03 - 0.18	150 - 350
	Finishing	Continuous to heavy interrupted	Without	BXM10 BXM20 BXA20	0.05 - 0.3	0.05 - 0.25	70 - 220
	Removing of carburized layer	Continuous	HF	BXM20	0.2 - 0.75	0.05 - 0.2	70 - 200
		Continuous	HM	BXM20 BXA20	0.5 - 1.0	0.05 - 0.2	70 - 200

Hardened steels, Pre-hardened steels: X153CrMoV12, X40CrMoV5-1, etc.

TurnLine - Selection System

SELECTION SYSTEM: NEGATIVE INSERTS

H Hard Materials

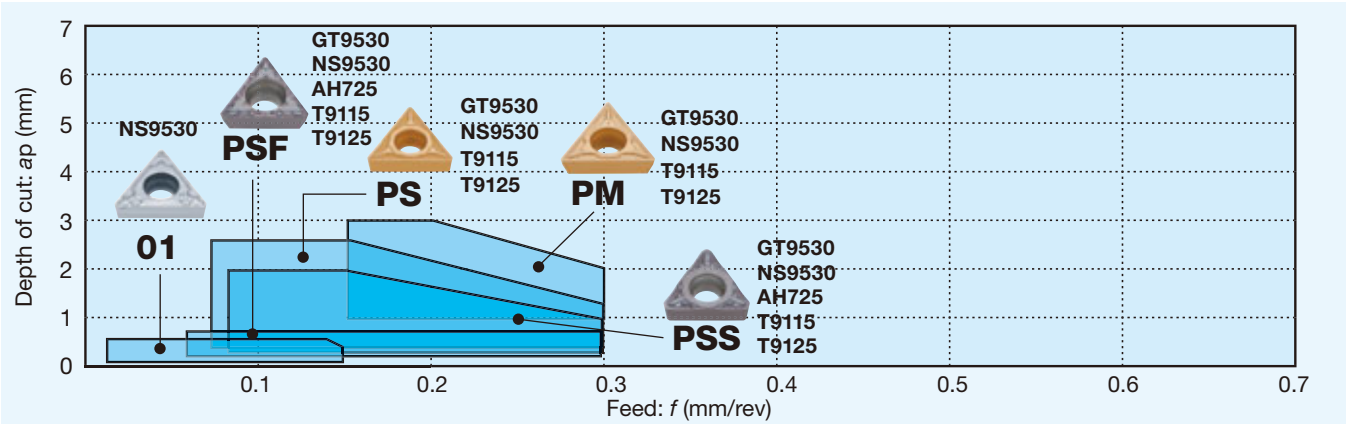
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.2 mm]	Basic T-CBN BXM10	Basic T-CBN BXA20 Fracture → -H BXM20 For high speed Wear → T-CBN BXM10	
Finishing [a_p = ~ 0.5 mm]	Basic T-CBN BXM10	Basic T-CBN BXA20 Fracture → -H BXM20 For high speed Wear → T-CBN BXM10	Basic T-CBN BXM20 Fracture → -H BXM20

TurnLine - Chipbreaker Guide

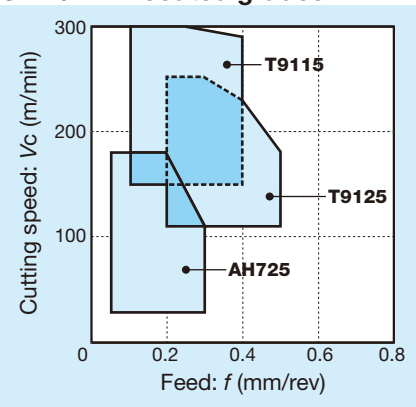
BASIC CHIPBREAKERS: POSITIVE INSERTS

P Steel

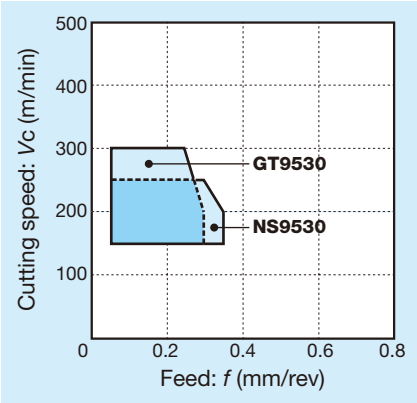
Chipbreaker System for Turning (Positive Inserts)

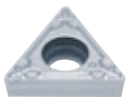
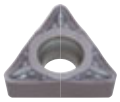


CVD / PVD coated grades



Coated cermets / Cermets



Chipbreaker	Appearance	Features
01		The sharp cutting edge and raised projection near corner contribute to excellent chip control at very small depth of cut and low feed.
PSF		Developed chipbreaker for finishing at low cutting depths. Optimal chip control due to pre-positioned chipbreaker element.
PSS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.

Chipbreaker	Appearance	Features
PS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.
PM		Developed chipbreaker for medium cutting. Excellent chip control due to wide, positive chip flow zone.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min) Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	Continuous	01	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	80 - 220	80 - 180
		Light interrupted	01	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	80 - 220	80 - 180
	Finishing	Continuous	PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
		Light interrupted	PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
		Heavy interrupted	PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
	Finishing to light cutting	Continuous	PS	NS9530	0.3 - 2.0	0.08 - 0.3	150 - 250	80 - 220	80 - 180
		Light interrupted	PS	NS9530	0.3 - 2.0	0.08 - 0.3	150 - 250	80 - 220	80 - 180
		Heavy interrupted	PS	NS9530	0.3 - 2.0	0.08 - 0.3	150 - 250	80 - 220	80 - 180
	Finishing to Medium cutting	Continuous to Heavy interrupted	PS	T9115	0.5 - 2.5	0.08 - 0.3	150 - 300	100 - 200	80 - 180
			PS	T9125	0.5 - 2.5	0.08 - 0.3	120 - 250	80 - 180	80 - 120
	Medium cutting	Continuous to Heavy interrupted	PM	T9115	1.0 - 3.0	0.15 - 0.3	150 - 300	100 - 200	80 - 180
			PM	T9125	1.0 - 3.0	0.15 - 0.3	120 - 250	80 - 180	80 - 120

Low carbon steels, Alloy steels: C10, 18CrMo4, E275A, 20Cr4, etc. Medium carbon steels, Alloy steels: C45, 42CrMo4, etc.
Hi carbon steels, Alloy steels: 41CrNiMo2, etc.

TurnLine - Selection System

SELECTION SYSTEM: POSITIVE INSERTS

P Steel

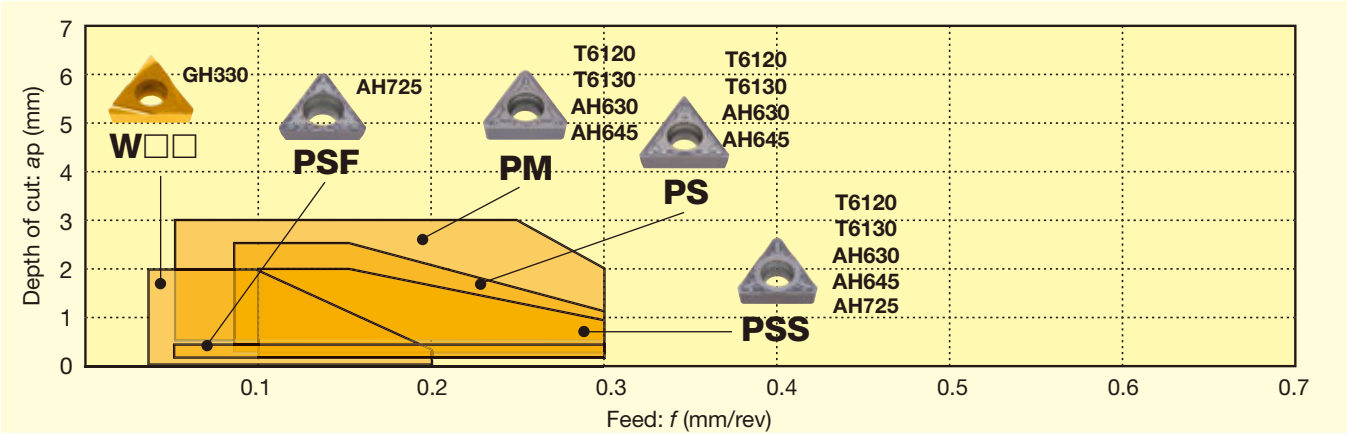
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic: 01 NS9530	Basic: 01 NS9530 → Fracture: PSF NS9530	
Finishing [a_p = 0.1 ~ 0.5 mm]	Basic: PSS NS9530 → Wear: PSS GT9530; Fracture: PS NS9530; Chip control: PSF NS9530	Basic: PSS NS9530 → Wear: PSS GT9530; Fracture: PS NS9530; Chip control: PSF NS9530	Basic: PSS NS9530 → Wear: PSS GT9530; Fracture: PS NS9530; Chip control: PSF NS9530
Finishing to Medium cutting [a_p = 0.5 ~ 2.5 mm]	Basic: PS T9115 → Fracture: PS T9125; Wear: PS NS9530	Basic: PS T9115 → Fracture: PS T9125; Wear: PS NS9530	Basic: PS T9125 → Fracture: PM T9125
Medium cutting [a_p = 1.0 ~ 3.0 mm]	Basic: PM T9115 → Wear: PM NS9530	Basic: PM T9115 → Fracture: PM T9125	Basic: PM T9125

TurnLine - Chipbreaker Guide

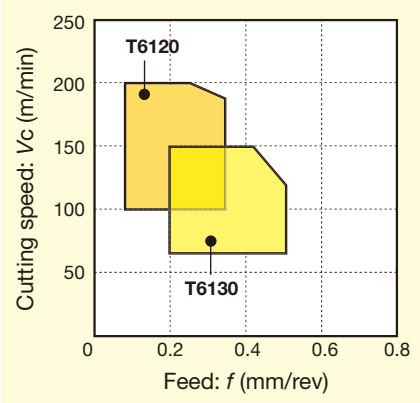
BASIC CHIPBREAKERS: POSITIVE INSERTS

M Stainless Steel

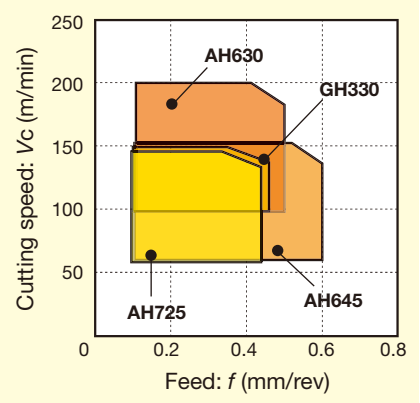
Chipbreaker System for Turning (Positive Inserts)

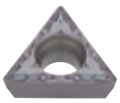


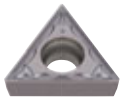
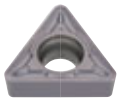
CVD coated grades



PVD coated grades



Chipbreaker	Appearance	Features
W□□		Designed to control the direction of chip flow and used for precision finish boring. Provides excellent chip evacuation which is important to attain a highly accurate bore.
PSF		Developed chipbreaker for finishing at low cutting depths. Optimal chip control due to pre-positioned chipbreaker element.

Chipbreaker	Appearance	Features
PSS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.
PS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.
PM		Developed chipbreaker for medium cutting. Excellent chip control due to wide, positive chip flow zone.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chipbreaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed *Vc* (m/min)
M	Precision finishing	Continuous	W□□	GH330	0.05 - 2.0	0.03 - 0.2	100 - 150
	Finishing	Continuous	PSF	AH725	0.1 - 0.5	0.05 - 0.3	50 - 150
		Light interrupted	PSF	AH725	0.1 - 0.5	0.05 - 0.3	50 - 150
		Heavy interrupted	PSF	AH725	0.1 - 0.5	0.05 - 0.3	50 - 120
	Finishing to light cutting	Continuous	PSS	AH630	0.3 - 2.0	0.08 - 0.3	90 - 190
		Light interrupted	PSS	AH630	0.3 - 2.0	0.08 - 0.3	90 - 190
		Heavy interrupted	PSS	AH630	0.3 - 2.0	0.08 - 0.3	90 - 190
	Finishing to medium cutting	Continuous	PS	T6130	0.5 - 2.5	0.08 - 0.3	100 - 200
		Light interrupted	PS	AH630	0.5 - 2.5	0.08 - 0.3	90 - 190
		Heavy interrupted	PS	AH630	0.5 - 2.5	0.08 - 0.3	90 - 190
	Medium cutting	Continuous	PM	T6130	1.0 - 3.0*	0.15 - 0.3	100 - 200
		Light interrupted	PM	AH630	1.0 - 3.0*	0.15 - 0.3	90 - 190
		Heavy interrupted	PM	AH630	1.0 - 3.0*	0.15 - 0.3	90 - 190

* For CCMT0602 and DCMT0702 type inserts, *ap* = 0.5 - 2.5
Stainless steels: X5CrNi18-9, X5CrNiMo17-12-3, etc.

TurnLine - Selection System

SELECTION SYSTEM: POSITIVE INSERTS

M Stainless Steel

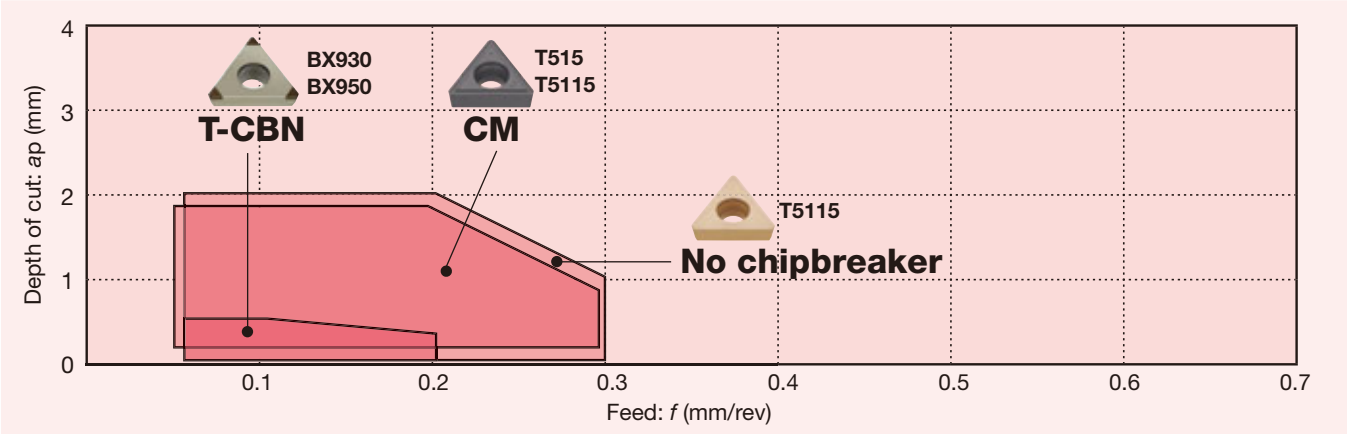
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic: W□□ GH330	Basic: W□□ GH330	
Finishing [a_p = 0.3 ~ 1.5 mm]	Basic: PSF AH725 → Wear: PSS T6130	Basic: PSF AH725 → Fracture: PSS AH630; Wear: PSS T6130	Basic: PSF AH725 → Fracture: PSS AH630
Finishing to Medium cutting [a_p = 0.5 ~ 2.5 mm]	Basic: PSS AH630 → Wear: PS T6130	Basic: PS AH630 → Fracture: PM AH645; Wear: PS T6130	Basic: PS AH630 → Fracture: PM AH645; Wear: PS T6130
Medium cutting [a_p = 1.0 ~ 3.0 mm]	Basic: PM AH6130	Basic: PM AH630 → Fracture: PM AH645; Wear: PM T6130	Basic: PM AH630 → Fracture: PM AH645

TurnLine - Chipbreaker Guide

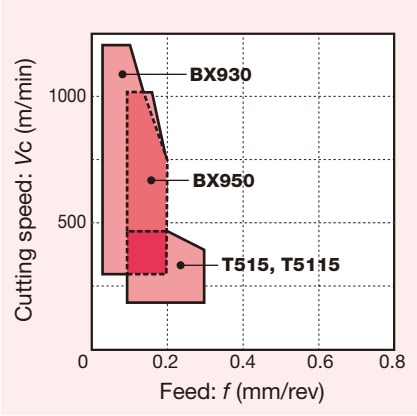
BASIC CHIPBREAKERS: POSITIVE INSERTS

K Cast Iron

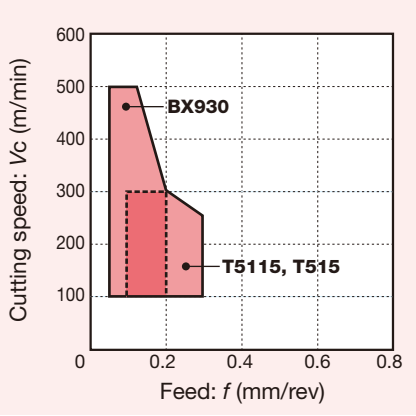
Chipbreaker System for Turning (Positive Inserts)

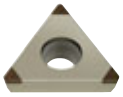


Grey cast irons



Ductile cast irons



Chipbreaker	Appearance	Features
No chip-breaker (T-CBN)		Performs well in high speed finishing of cast iron.
No chip-breaker		Can cover a wide range of applications from finishing to roughing of cast irons. Excels in cutting edge strength.

Chipbreaker	Appearance	Features
CM		All-around chipbreaker for general purpose cutting, provides low cutting forces and excellent performance in finishing to medium cutting.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min)	
							Grey cast irons	Ductile cast irons
K	Precision finishing	Continuous	Without	BX930	0.05 - 0.5	0.05 - 0.2	300 - 1200	100 - 500
		Light interrupted	Without	BX950	0.05 - 0.5	0.05 - 0.2	300 - 800	100 - 300
			Without	BX470	0.05 - 0.5	0.05 - 0.2	300 - 800	100 - 300
	Finishing	Continuous	CM	T515	0.05 - 2.0	0.05 - 0.3	150 - 700	150 - 300
		Heavy interrupted	CM	T515	0.05 - 2.0	0.05 - 0.3	100 - 200	100 - 200
	Medium cutting	Light interrupted	CM	T515	0.05 - 2.0	0.05 - 0.3	100 - 300	100 - 250

Grey cast irons: 250, etc.
Ductile cast irons: 450-10S, etc.

SELECTION SYSTEM: POSITIVE INSERTS

K Cast Iron

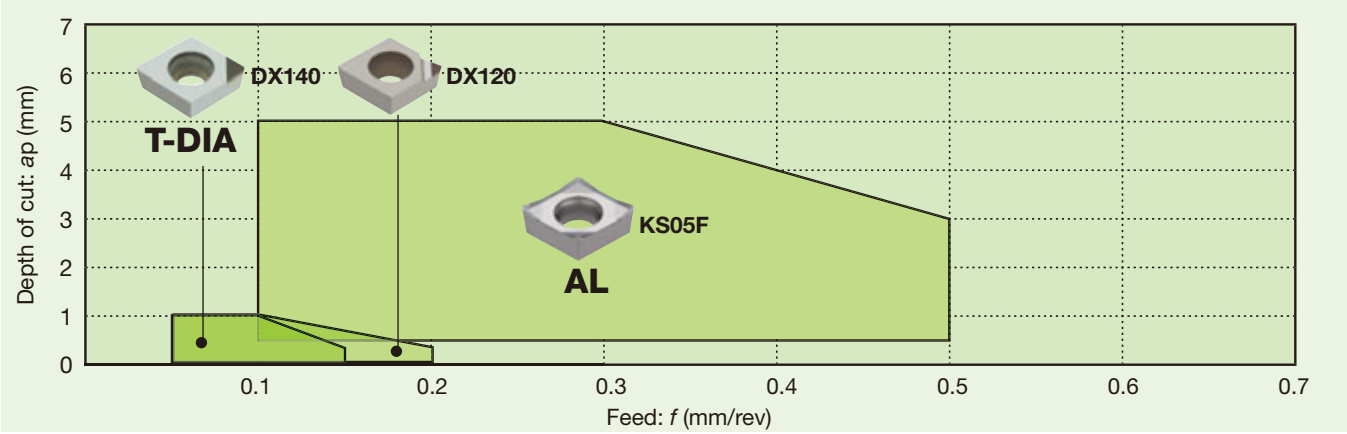
	Continuous	Light interrupted	Heavy interrupted
Finishing to Medium cutting [a_p = 0.5 ~ 3.0 mm]	Basic: **CM T515** → Wear → **T-CBN BX930**	Basic: **CM T515**	Basic: **CM T515**

TurnLine - Chipbreaker Guide

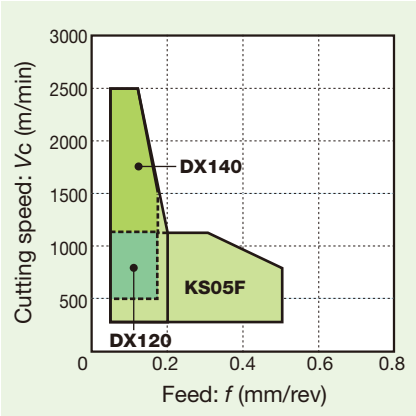
BASIC CHIPBREAKERS: POSITIVE INSERTS

N Non-ferrous Metal

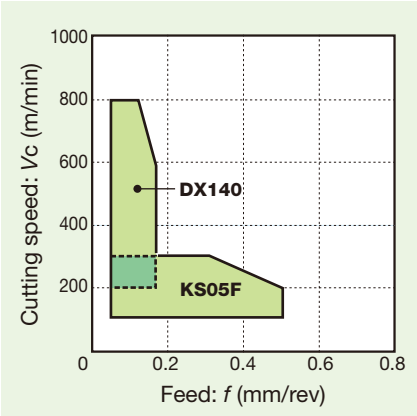
Chipbreaker System for Turning (Positive Inserts)



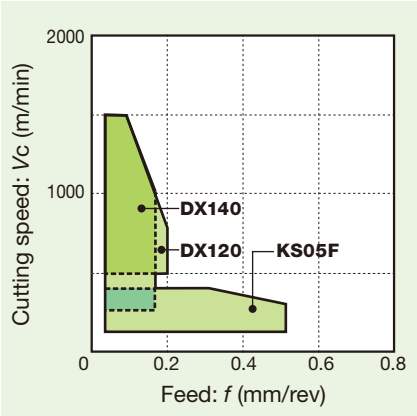
Aluminium alloys (Si < 12%)

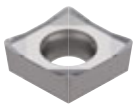


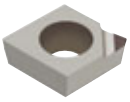
Aluminium alloys (Si ≥ 12%)



Copper alloys



Chipbreaker	Appearance	Features
No chip-breaker (T-DIA)		Performs well in high speed finishing of non-ferrous materials.
AL		Extremely sharp cutting edge. Polished surface. Excellent chip forming at high cutting feeds. Low power consumption.

Chipbreaker	Appearance	Features
With chip-breaker (T-DIA)		The wide chipbreaker width contributes to excellent chip control.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min) Aluminium alloys (Si < 12%)	Aluminium alloys (Si > 12%)	Copper alloys
N	Precision finishing	Continuous	With	DX120	0.05 - 1.0	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		Light interrupted	Without	DX140	0.05 - 1.0	0.05 - 0.2	300 - 2500	-	500 - 1500
	Finishing	Continuous	Without	DX140	0.05 - 1.0	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		Light interrupted	Without	DX140	0.05 - 1.0	0.05 - 0.15	300 - 1800	400 - 600	400 - 1200
		Heavy interrupted	AL	KS05F	0.5 - 5.0	0.1 - 0.5	100 - 600	100 - 200	-
	Medium cutting	Continuous	AL	KS05F	0.5 - 5.0	0.1 - 0.5	100 - 1200	100 - 300	100 - 300
		Light interrupted	AL	KS05F	0.5 - 5.0	0.1 - 0.5	100 - 900	100 - 200	100 - 200
		Heavy interrupted	AL	KS05F	0.5 - 5.0	0.1 - 0.5	100 - 600	100 - 200	-

TurnLine - Selection System

SELECTION SYSTEM: POSITIVE INSERTS

N Non-ferrous Metal

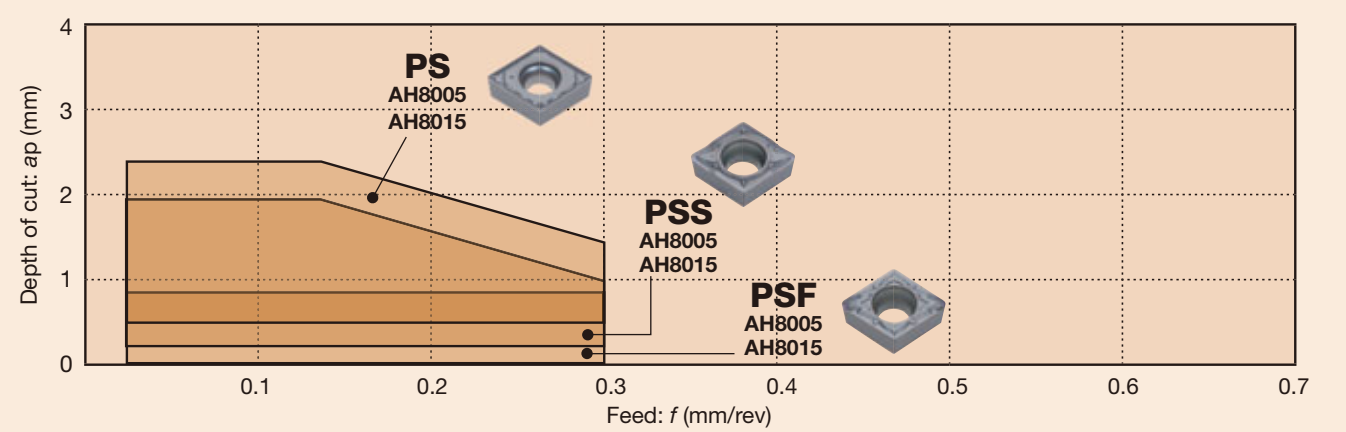
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.5 mm]	Basic: With chipbreaker **DX120** → Wear → **T-DIA DX140**	Basic: With chipbreaker **DX120** → Wear → **T-DIA DX140**	
Finishing [a_p = 0.5 ~ 2.0 mm]	Basic: **T-DIA DX140** → Wear → **T-DIA DX160**; → Chip control → With chipbreaker T-DIA **DX120**	Basic: **T-DIA DX140** → Fracture → **AL KS05F**; → Wear → **T-DIA DX160**	Basic: **AL KS05F**
Medium cutting [a_p = 1.0 ~ 5.0 mm]	Basic: **AL KS05F** → Wear → With chipbreaker T-DIA **DX120**	Basic: **AL KS05F** → Wear → **T-DIA DX140**	Basic: **AL KS05F**

TurnLine - Chipbreaker Guide

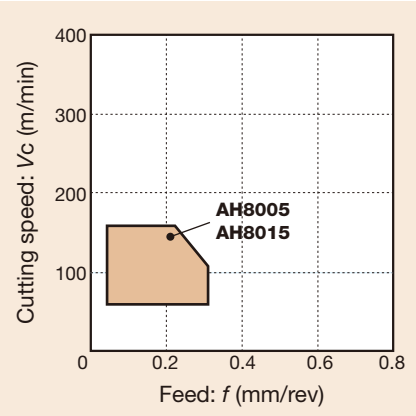
BASIC CHIPBREAKERS: POSITIVE INSERTS

S Superalloys and titanium

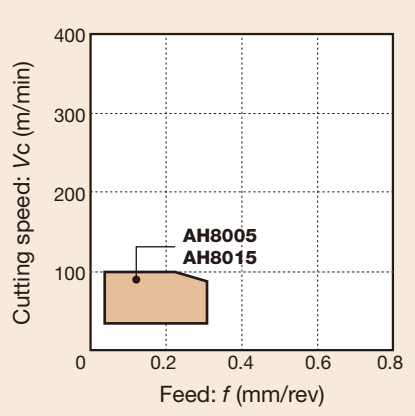
Chipbreaker System for Turning (Positive Inserts)



Titanium alloys



Ni-base alloys



Chipbreaker	Appearance	Features
PS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.

Chipbreaker	Appearance	Features
PSF		Developed chipbreaker for finishing at low cutting depths. Optimal chip control due to pre-positioned chipbreaker element.
PSS		3-dimensional chipbreaker designed to have excellent chip control capability and low cutting force in finishing to medium cutting. Low cost, M-class positive insert used for high efficiency boring in a wide range of applications.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed: *Vc* (m/min)	
							Titanium alloys	Ni-base alloys
S	Finishing	Continuous	PSS	AH8015	0.3 - 2.0	0.02 - 0.3	20 - 150	20 - 100
		Light interrupted	PSS	AH8015	0.3 - 2.0	0.02 - 0.3	20 - 150	20 - 100
	Finishing to medium cutting	Continuous	PS	AH8015	0.5 - 2.5	0.02 - 0.3	20 - 150	20 - 100
		Light interrupted	PS	AH8015	0.5 - 2.5	0.02 - 0.3	20 - 150	20 - 100

Ni-base alloys: INCONEL718 etc.
Titanium alloys: Ti - 6Al - 4V etc.

TurnLine - Selection System

SELECTION SYSTEM: POSITIVE INSERTS

S Superalloys and titanium

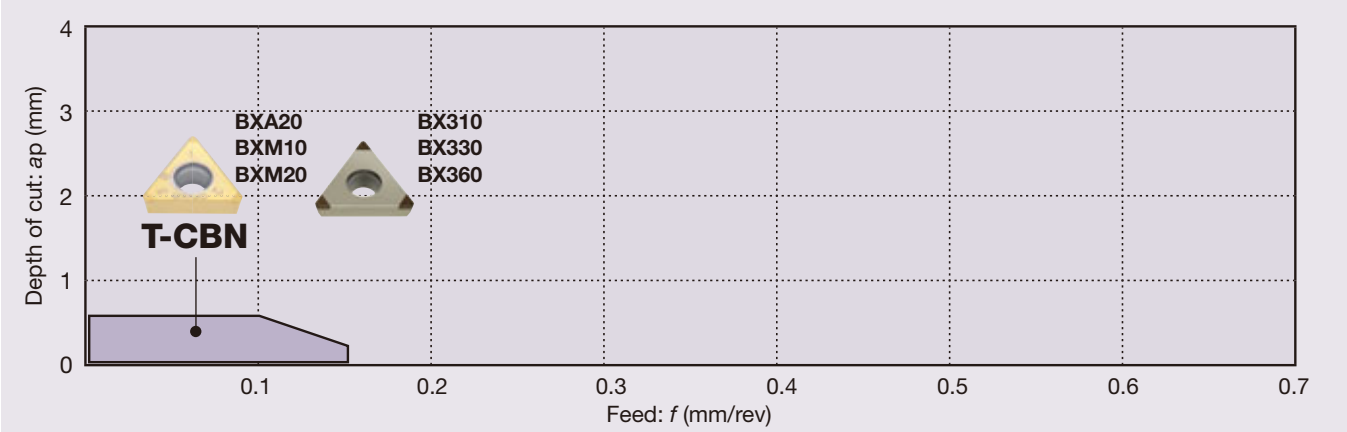
	Continuous	Light interrupted	Heavy interrupted
Finishing [a_p = 0.3 ~ 2.0 mm]	Basic: **PSS AH8015** → Wear → **PSS AH8005**	Basic: **PSS AH8015** → Wear → **PSS AH8005**; → Fracture → **PS AH8015**	
Finishing to medium cutting [a_p = 0.5 ~ 2.5 mm]	Basic: **PS AH8015** → Wear → **PSS AH8005**	Basic: **PS AH8015** → Fracture → **All-round AH8015**	Basic: **PS AH8015** → Fracture → **All-round AH8015**

TurnLine - Chipbreaker Guide

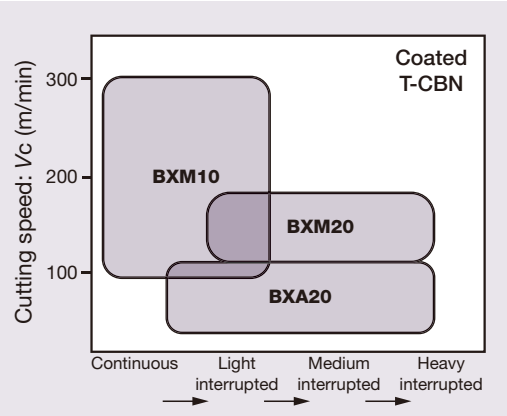
BASIC CHIPBREAKERS: POSITIVE INSERTS

H Hard Materials

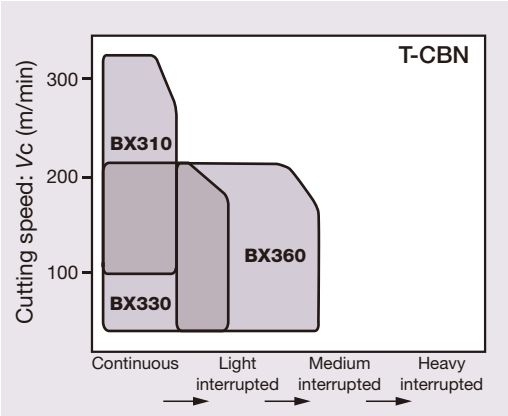
Chipbreaker System for Turning (Positive Inserts)



Coated T-CBN



T-CBN



Chipbreaker	Appearance	Features
No chip-breaker (T-CBN)		Performs well in finishing of hardened steel.

STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chipbreaker	Grade	Depth of cut *ap* (mm)	Feed *f* (mm/rev)	Cutting speed *Vc* (m/min)
H	Precision finishing	Continuous	No chipbreaker (T-CBN)	BXM10	0.05 - 0.3	0.03 - 0.15	150 - 350
		Light interrupted	No chipbreaker (T-CBN)	BXM20 BXA20	0.05 - 0.3	0.03 - 0.15	70 - 220
	Finishing	Continuous ~ interrupted	No chipbreaker (T-CBN)	BXM20 BXA20	0.07 - 0.5	0.05 - 0.3	70 - 220

Hardened steels, Pre-hardened steels: X153CrMoV12, X40CrMoV5-1, etc.

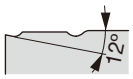
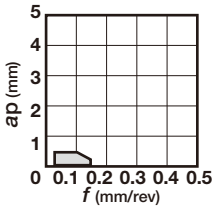
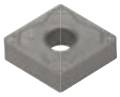
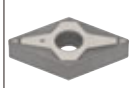
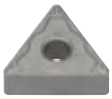
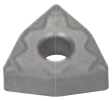
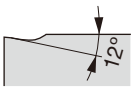
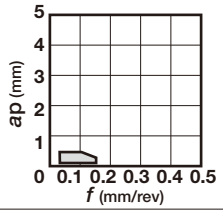
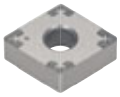
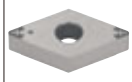
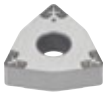
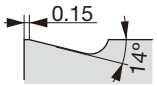
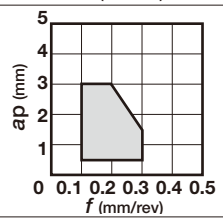
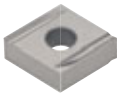
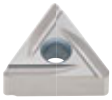
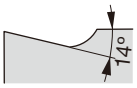
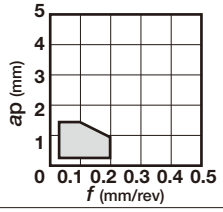
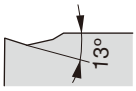
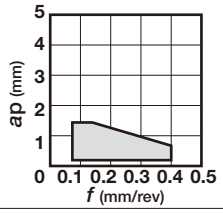
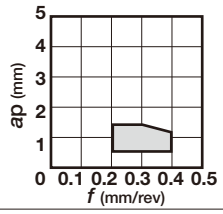
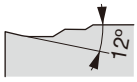
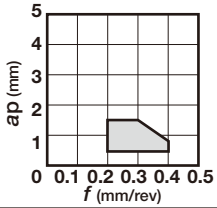
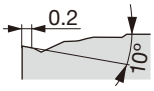
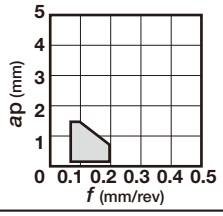
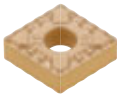
TurnLine - Selection System

SELECTION SYSTEM: POSITIVE INSERTS

H Hard Materials

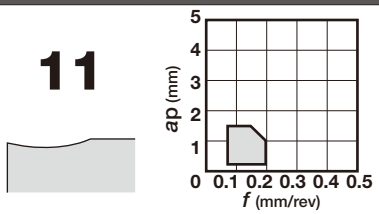
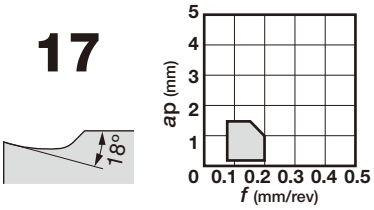
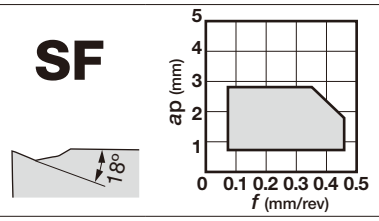
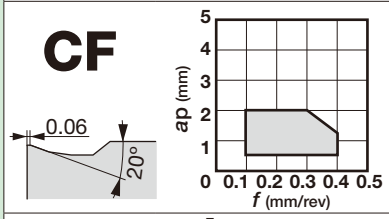
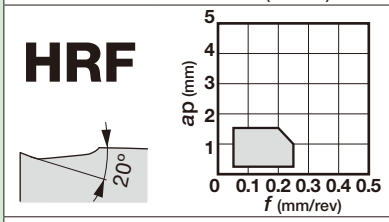
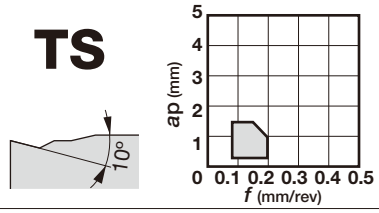
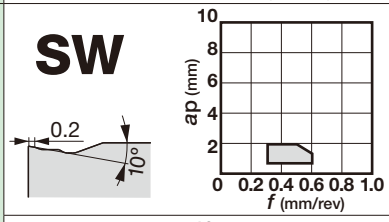
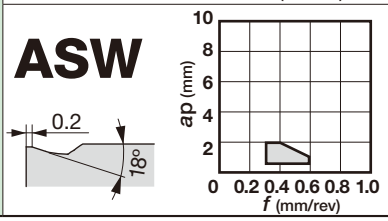
	Continuous	Light interrupted	Heavy interrupted
Precision finishing [a_p = ~ 0.3 mm]	Basic: **T-CBN BXM10**	Basic: **T-CBN BXM20** → Fracture: **T-CBN BXA20**; For high speed Wear: **T-CBN BXM10**	
Finishing [a_p = ~ 0.5 mm]	Basic: **T-CBN BXM10**	Basic: **T-CBN BXM20** → Fracture: **T-CBN BXA20**; For high speed Wear: **T-CBN BXM10**	Basic: **T-CBN BXM20** → Fracture: **T-CBN BXA20**

TurnLine - Chipbreaker Overview

Application	Negative type with hole	C	D	S	T	V	W	Y
		80°	55°	90°	60°	35°	80°	25°
Precision finishing	**TF**  	 B050	 B061	B071	 B080	B091	 B095	
	01  	 B050	 B061	B071	B080	B091	 B095	
	A~D  	 B050		B071	 B080, B081			
	W  				B081			
Finishing	**TSF**  	B050	B061	B071	B081	B091	B095	
Finishing (Wiper)	**FW** 	B050	B061		B081		B095	
	AFW  	B050					B095	
Finishing	**ZF**  	 B051	B061		B081	B091	B095	B102

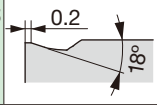
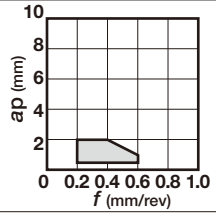
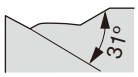
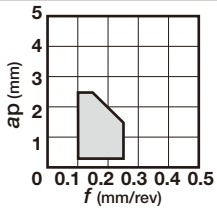
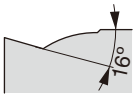
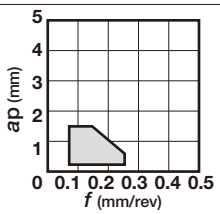
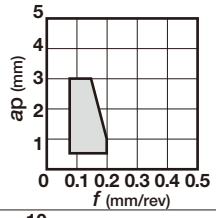
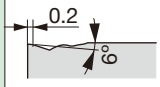
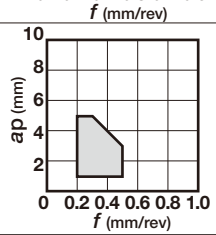
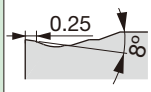
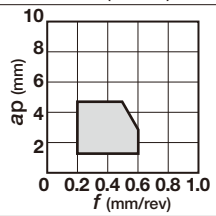
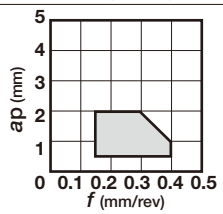
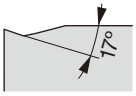
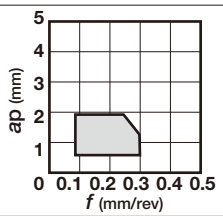
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Negative type with hole	C	D	S	T	V	W	Y
		80°	55°	90°	60°	35°	80°	25°
Finishing	11 	B051	B062	B072	B082	B091	B096	
Finishing of mild steels	17 	B051	B062	B072	B082		B096	
Finishing	SF 	B051	B062	B072	B082	B091	B096	
	CF 	B051	B062	B072	B082	B092	B096	
	HRF 	B051	B062	B072	B082	B092	B096	
	TS 	B052	B063	B073	B083	B092	B096	
Finishing to medium cutting (Wiper)	SW 	B052	B063		B083		B097	
	ASW 	B052					B097	

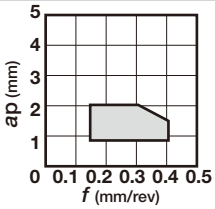
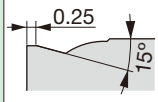
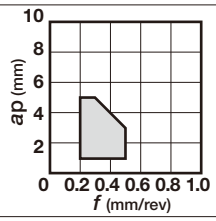
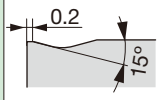
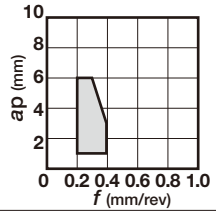
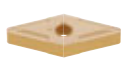
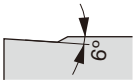
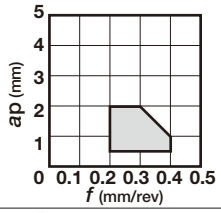
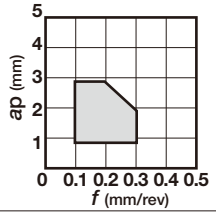
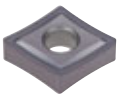
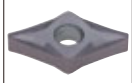
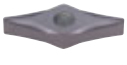
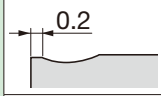
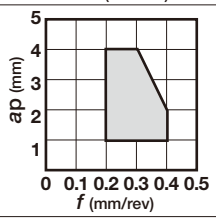
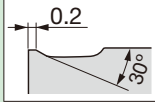
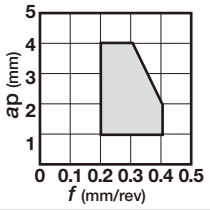
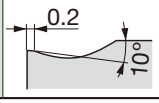
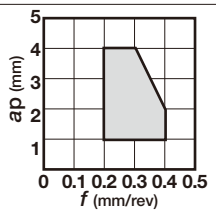
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Negative type with hole		C	D	S	T	V	W	Y
			80°	55°	90°	60°	35°	80°	25°
High feed, small depth of cut	**AS**	 	B052	B063	B073	B083		B097	
Boring (Double sided)	**CB**	 	B052	B063		B083		B097	
Finishing	**NS**	 	B053	B063	B073	B083		B097	
	SS		B053	B064	B073	B084	B092	B097	
Medium cutting	**TM**	 	B053	B064	B073	B084	B092	B098	
Finishing to medium cutting	**AM**	 	B053	B064		B084		B098	
	NM		B053	B064		B084		B098	
	TQ	 	B054	B065		B084	B093	B098	

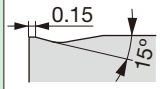
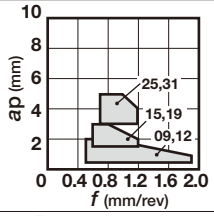
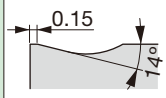
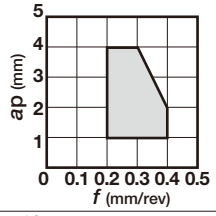
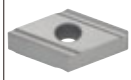
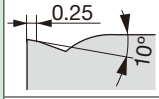
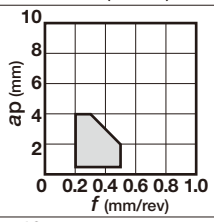
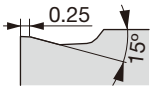
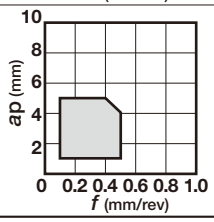
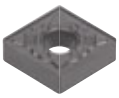
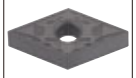
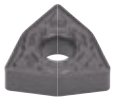
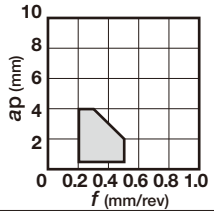
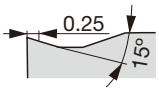
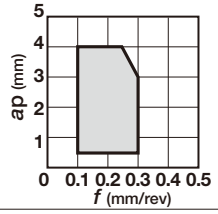
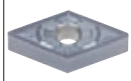
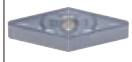
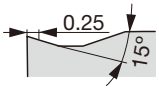
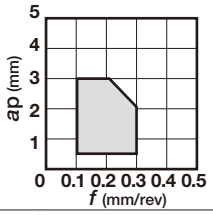
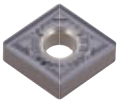
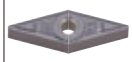
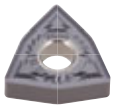
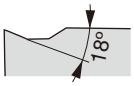
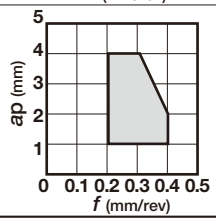
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Negative type with hole	C 80°	D 55°	S 90°	T 60°	V 35°	W 80°	Y 25°
Finishing to medium cutting	**ZM** 	B054	B065	B074	B085	B093	B098	B102
Medium cutting	**DM**  	B054	B065	B074	B085	B093	B099	
	All-round  	B054	B065	B074	B085	 B093	B099	
Finishing to medium cutting	**27**  	B055	B065	B074	B085		B099	
Medium cutting	**28** 	 B055	 B066		B086	 B093		
	33  	B055	B066		B086	B093	B099	
	37  	B055	B066	B075	B086		B099	
	38  	B055	B066		B086			

The page number for the product details is shown in red.

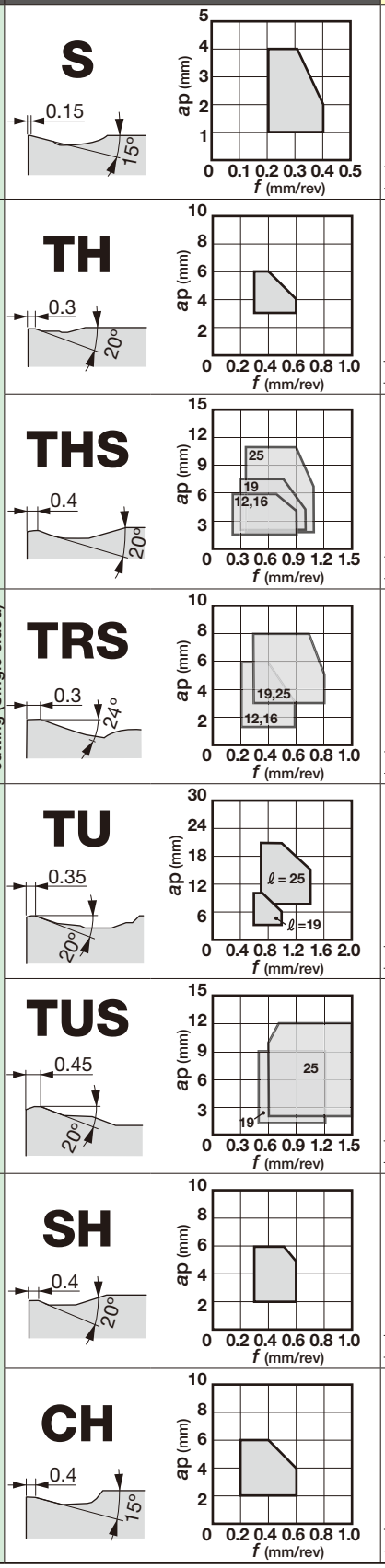
TurnLine - Chipbreaker Overview

Application	Negative type with hole	C	D	R	S	T	V	W
		80°	55°		90°	60°	35°	80°
Heavy cutting	**61**  			B070				
Medium cutting	**Parallel**  		 B066					
	SM  	B056	B066		B075	B086	B094	B100
	CM  	 B056	 B067		B075	B086	B094	 B100
	P 	B056	B067		B075	B087		
Finishing to medium cutting	**HRM**  	B056	 B067		B075	B087	 B094	B100
Medium cutting	**HMM**  	 B056	B067		B076	B087	 B094	 B100
	SA  	B057	B067		B076	B087		B100

The page number for the product details is shown in red.

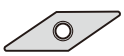
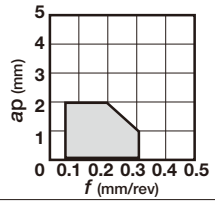
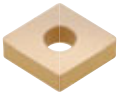
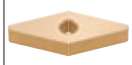
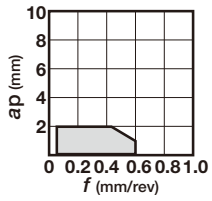
TurnLine - Chipbreaker Overview

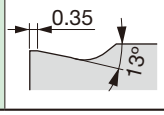
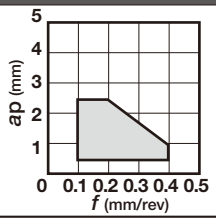
Application	Negative type with hole	C	D	R	S	T	V	W
		80°	55°		90°	60°	35°	80°
Medium cutting	**S** 0.15, 15°	B057	B067		B076	B088		
Medium to heavy cutting	**TH** 0.3, 20°	B057	B068		B076	B088		B101
Medium to heavy cutting	**THS** 0.4, 20°	B057	B068		B076	B088		B101
Medium to heavy cutting (Single sided)	**TRS** 0.3, 24°	B058			B077			
Heavy cutting (Single sided)	**TU** 0.35, 20°	B058			B077			
Heavy cutting (Single sided)	**TUS** 0.45, 20°	B058			B077			
Medium to heavy cutting	**SH** 0.4, 20°	B058	B068		B077			B101
Medium to heavy cutting	**CH** 0.4, 15°	B058	B068		B077	B088		B101



The page number for the product details is shown in red.

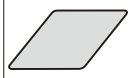
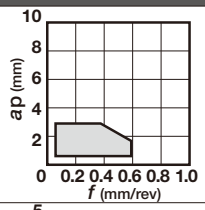
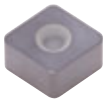
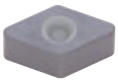
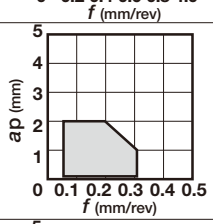
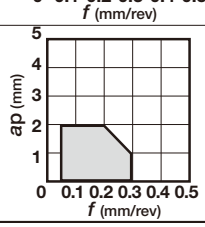
TurnLine - Chipbreaker Overview

Application	Negative type with hole	C	D	R	S	T	V	W
								
		80°	55°		90°	60°	35°	80°
Finishing to medium cutting	M,G-class 	 B059	B068	B070	B078	B089	 B094	B101
Finishing to medium cutting	Wiper M-class 	B059						

Application	Negative type without hole	C	D	KNMX	LNGN	R	S	T
		80°	55°	55°	90°		90°	60°
Finishing	S1  			B103				

The page number for the product details is shown in red.

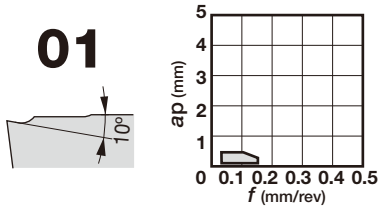
TurnLine - Chipbreaker Overview

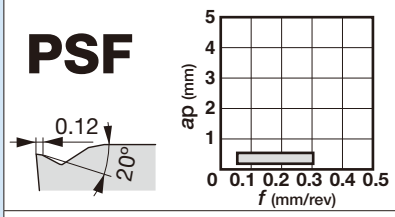
Application	Negative type without hole		C	D	H	R	S	T	V
									
			80°	55°	120°		90°	60°	35°
Finishing to medium cutting	G-class		 B060	 B069	B103		B079		B094
	M,G-class		B060	B069		B070	B079	B090	
	M,G-class		B060	B069			B079		

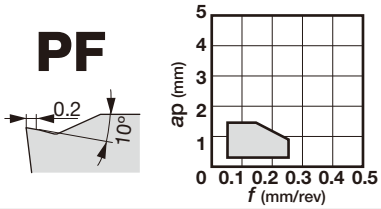
The page number for the product details is shown in red.

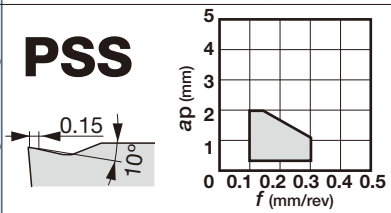
TurnLine - Chipbreaker Overview

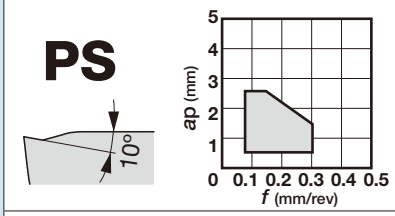
Application	Positive 7° with hole	C	D	R	S	T	V	Y
		80°	55°		90°	60°	35°	25°
Precision finishing	01	B104	B114			B131		
Finishing	PSF	B104	B114			B131	B147	
Finishing	PF	B104	B114				B147	
Finishing to light cutting	PSS	B105	B115			B131	B147	
Finishing to medium cutting	PS	B105	B115		B127	B132	B147	
Finishing to medium cutting	ZF							B153
Finishing to medium cutting	ZM							B153
Finishing to medium cutting	23	B105	B115		B127	B132		

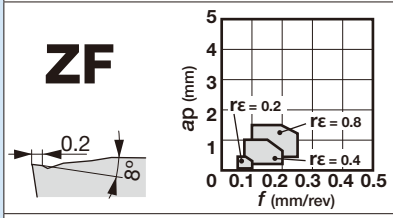


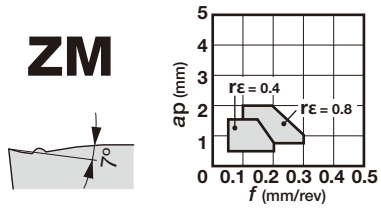


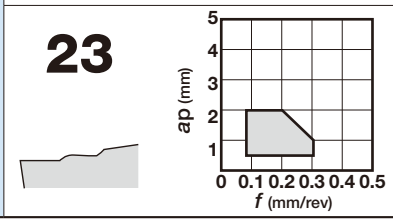






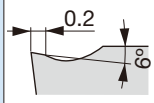
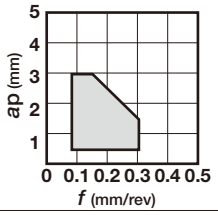
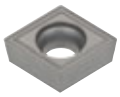
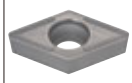
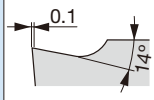
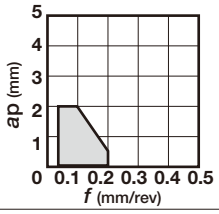
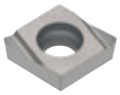
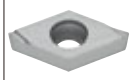
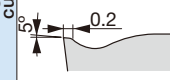
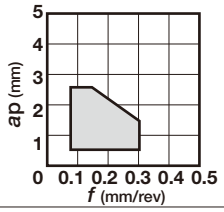
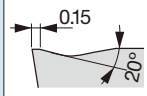
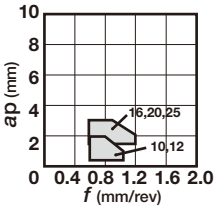
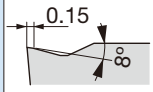
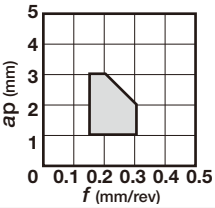
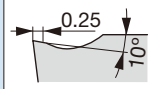
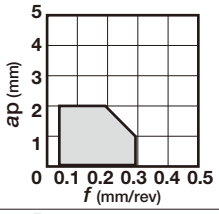
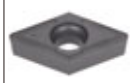
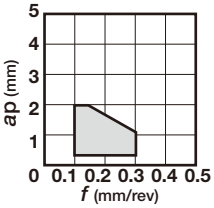
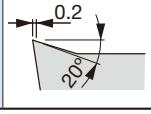
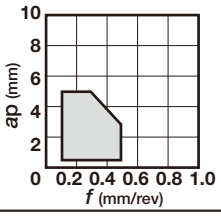






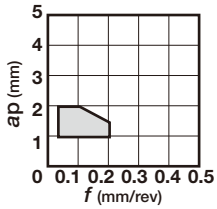
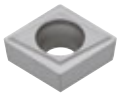
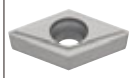
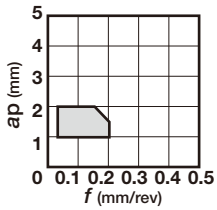
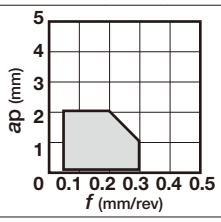
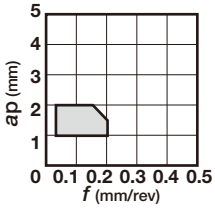
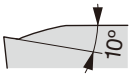
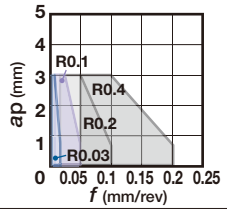
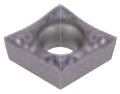
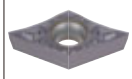
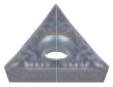
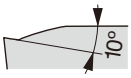
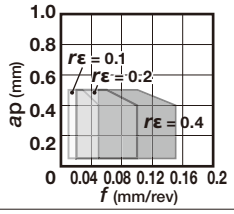
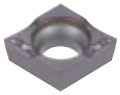
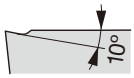
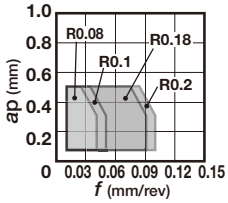
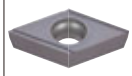
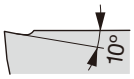
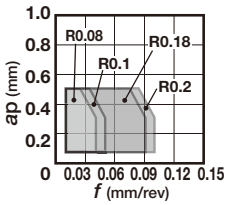
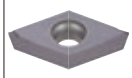
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Positive 7° with hole	C	D	R	S	T	V	Y
		80°	55°		90°	60°	35°	25°
Medium cutting	**24**  	 B105	 B115		B127	B132	B148	
Finishing	**W****  	 B106, B107	 B116			B132		
Finishing to medium cutting	**RS**  			B124				
Heavy cutting	**61**  			B125				
Medium cutting	**PM**  	B107	B116		B127	B133		
Finishing to medium cutting	**CM**  	B107	 B116	B124	B127	B133	B148	
	SS 					B133		
	AL  	B108	B117	B124		B133	B148	

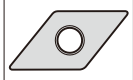
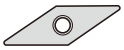
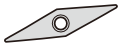
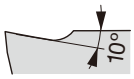
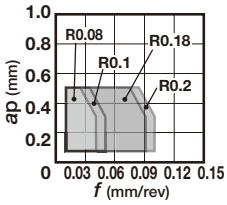
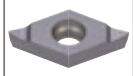
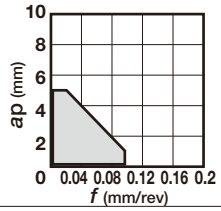
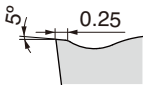
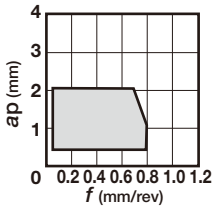
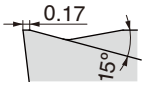
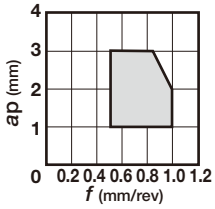
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Positive 7° with hole	C	D	R	S	T	V	Y
		80°	55°		90°	60°	35°	25°
Finishing to medium cutting	**All-round** 	 B108	 B117				B148	
	Angular 	B108	B117					
	M,G-class 	B108	B117					
Finishing	**(with hand)** 					B134		
For external turning on small lathes (Sharp edge)	**JS**  	 B109	 B118			 B134		
For internal turning on small lathes (Sharp edge)	**JS**  	 B109						
For external turning on small lathes (Sharp edge)	**JPP**  		 B118					
	JRP  		 B119					

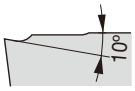
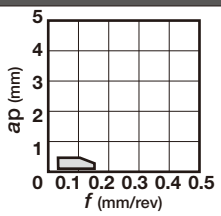
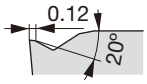
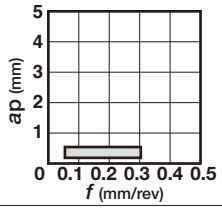
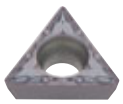
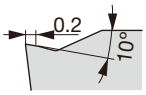
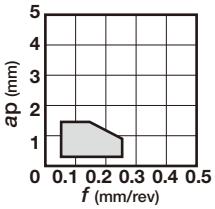
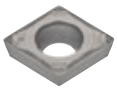
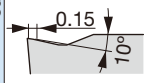
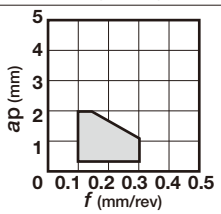
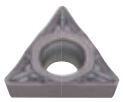
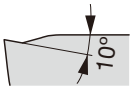
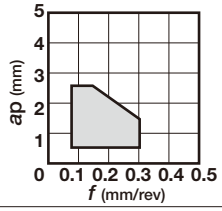
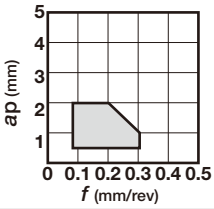
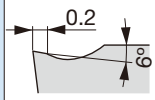
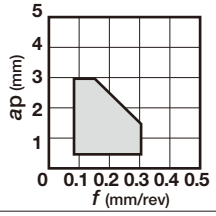
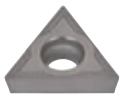
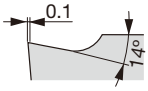
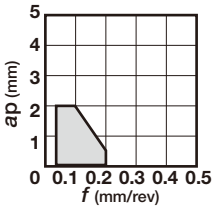
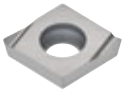
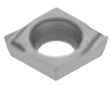
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
For external turning on small lathes (Sharp edge)	**JSP**  		 B119					
For external turning on small lathes (Sharp edge)	**J**** 	B110	B119			B134, B135		
Low cutting force	**6RS**  			B253				
General use	**6RM**  			B253				

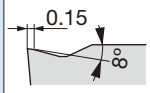
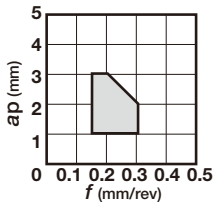
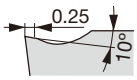
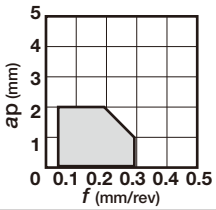
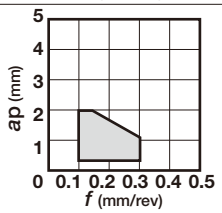
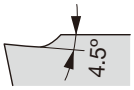
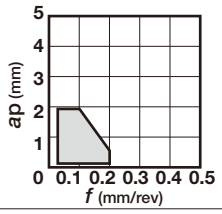
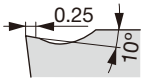
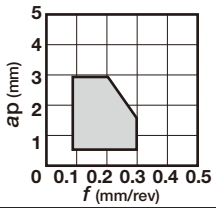
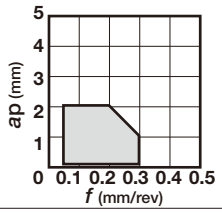
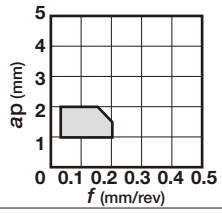
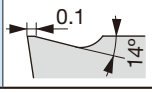
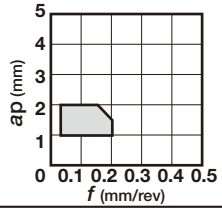
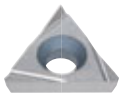
The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Positive 11° with hole	C	E	S	T	V
		80°	75°	90°	60°	35°
Precision finishing	**01**  				B136	
Finishing	**PSF**  	B111			 B136	
Finishing	**PF**  	 B111			B136	
Finishing to light cutting	**PSS**  	B111			 B137	
Finishing to medium cutting	**PS**  	B111		B128	B137	
Finishing to medium cutting	**23** 			B128	B137	
Medium cutting	**24**  	B112		B128	 B138	
Finishing	**W****  	 B112	 B122	B128	B138, B139	

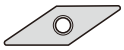
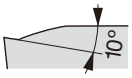
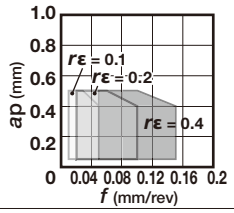
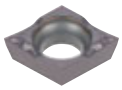
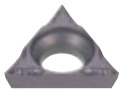
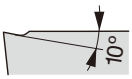
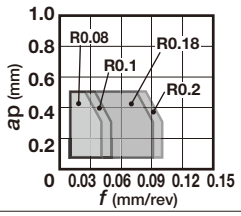
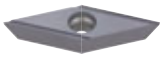
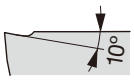
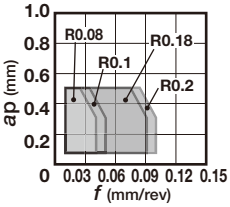
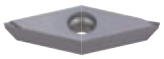
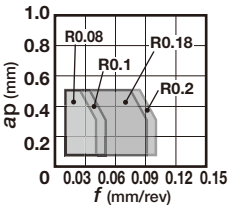
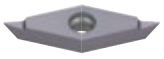
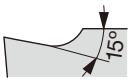
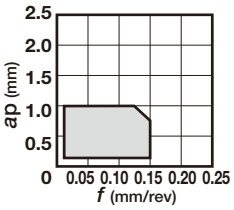
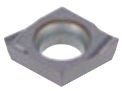
The page number for the product details is shown in red.

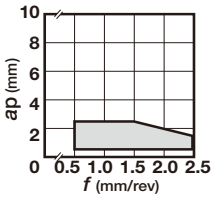
TurnLine - Chipbreaker Overview

Application	Positive 11° with hole	C	E	S	T	V
		80°	75°	90°	60°	35°
Medium cutting	**PM**  	B113			B140	
Finishing to medium cutting	**CM**  	B113		B129	B140	
	SS 				B140	
	H**  				B141	
Medium cutting	**All-round**  	B113				
Finishing to medium cutting	**—** M,G-class 	B113		B129	B141, B142	
	— (with hand) 			Former Tungaloy-standard hole Not ISO B129		
	— (with hand)  				 Former Tungaloy-standard hole Not ISO B141	

The page number for the product details is shown in red.

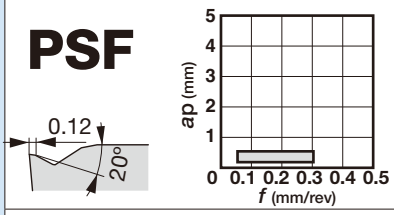
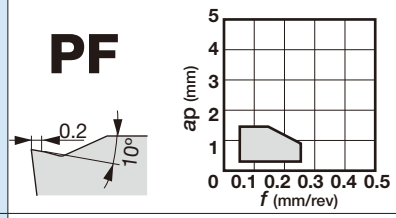
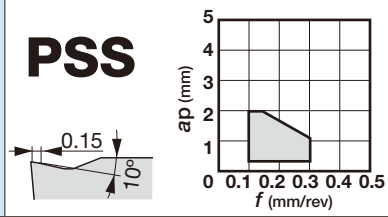
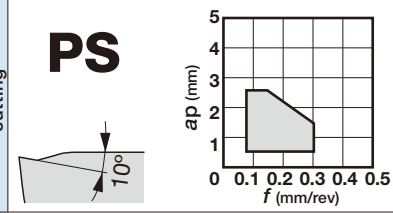
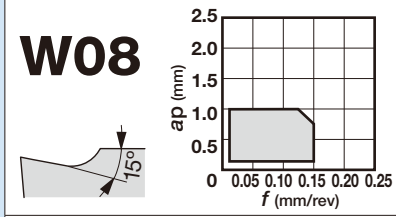
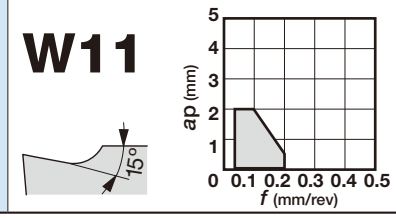
TurnLine - Chipbreaker Overview

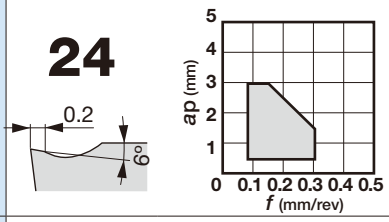
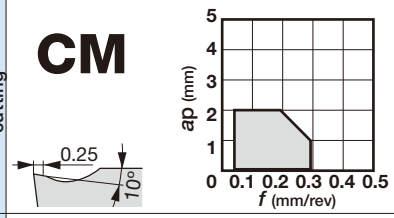
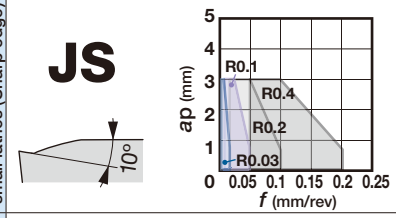
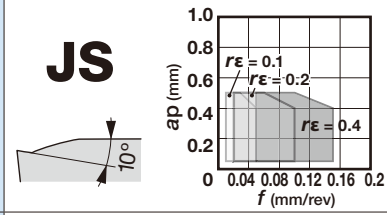
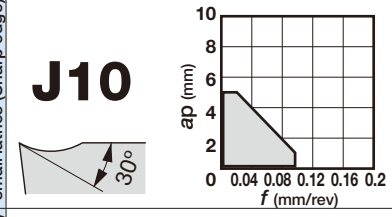
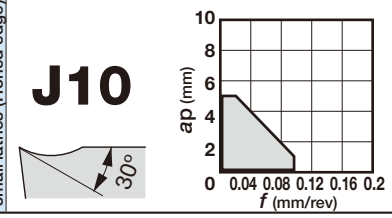
Application	Positive 11° with hole	C	E	S	T	V
						
		80°	75°	90°	60°	35°
For internal turning on small lathes	**JS**  		 B123		 B142	
For external turning on small lathes (Sharp edge)	**JPP**  					 B149
	JRP  					 B149
	JSP 					 B149
Finishing	**J08**  		 B123			

Application	Positive 11° with hole	W
		80°
Heavy cutting	**ML** 	B150

The page number for the product details is shown in red.

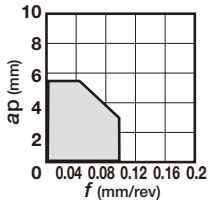
TurnLine - Chipbreaker Overview

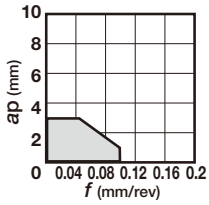
Application	Positive 5° with hole	V 35°	W 80°
Finishing	**PSF** 	B145	
Finishing	**PF** 	B145	
Finishing to light cutting	**PSS** 	B145	
Finishing to medium cutting	**PS** 	B145	
Finishing	**W08** 		B151
Finishing	**W11** 		B151

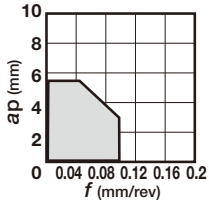
Application	Positive 5° with hole	V 35°	W 80°
Medium cutting	**24** 	B145	
Finishing to medium cutting	**CM** 	B145	
For external turning on small lathes (Sharp edge)	**JS** 	B146	
For internal turning on small lathes	**JS** 		B151
For external turning on small lathes (Sharp edge)	**J10** 	B146	
For external turning on small lathes (Honed edge)	**J10** 	B146	

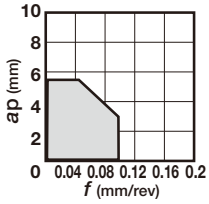
The page number for the product details is shown in red.

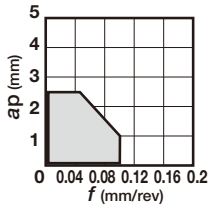
TurnLine - Chipbreaker Overview

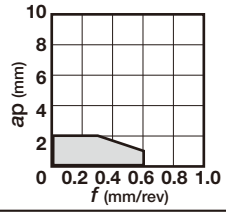
Application	Positive with hole	JXF□
Front-turning Insert	– 	B154

Application	Positive with hole	J10E□
Back-turning Insert	– 	B155, B156

Application	Positive with hole	JXB□
Back-turning Insert	– 	B154

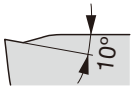
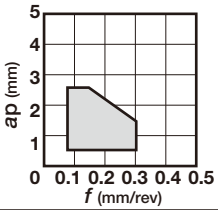
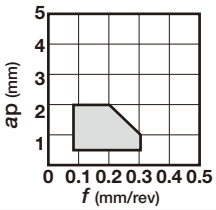
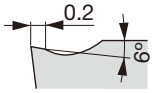
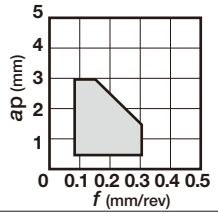
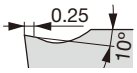
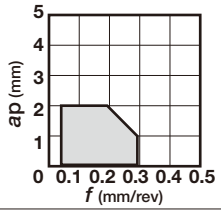
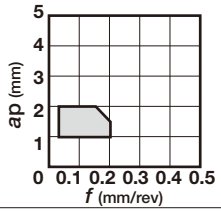
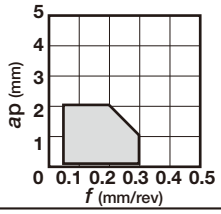
Application	Positive with hole	JXR□
Reverse-turning Insert	– 	B154

Application	Positive with hole	JTB□
Back-turning Insert	– 	B155

Application	Positive without hole	RT□
Medium cutting	– 	Special round insert B125

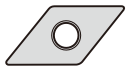
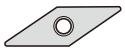
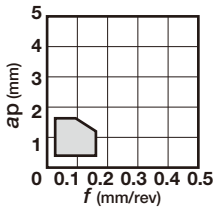
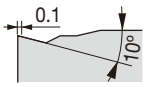
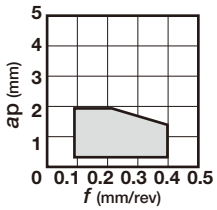
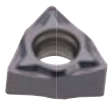
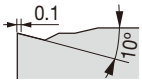
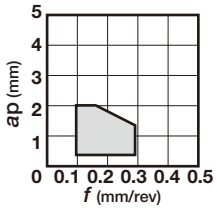
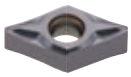
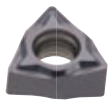
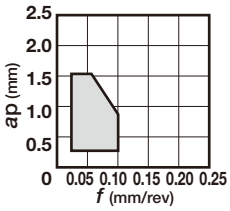
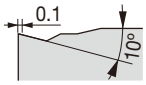
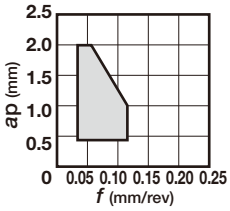
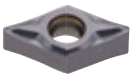
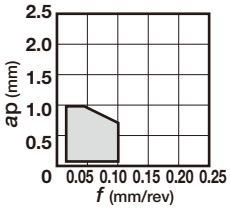
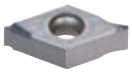
The page number for the product details is shown in red.

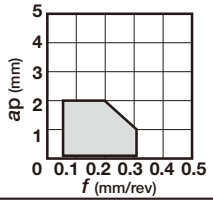
TurnLine - Chipbreaker Overview

Application	Positive 11° without hole	S	T
		90°	60°
Finishing to medium cutting	**PS**  		B143
	23 	B130	B143
Medium cutting	**24**  		B143
Finishing to medium cutting	**CM**  	B130	B143
	— (with hand) 	B130	B144
	— M,G-class 	B130	B144

The page number for the product details is shown in red.

TurnLine - Chipbreaker Overview

Application	Chipbreaker Positive, double-sided		D	V	W
					
			55°	35°	80°
Finishing (Low cutting force)	**SS**		B121		B152
Finishing (Wiper)	**TSW** 				 B152
Finishing to medium cutting	**TS** 		 B121		 B152
Finishing (Low cutting force) (sharp edge)	**JSS**		B120, B121		B152
Finishing to medium cutting (sharp edge)	**JTS** 		 B120		B152
Finishing (sharp edge)	**JRP**		 B120	B150	

Application	Chipbreaker Positive, without hole		RCGX□
			Special round insert
Medium cutting	—		B126

The page number for the product details is shown in red.

MEMO

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T9115	T9125	T9135	AH120	GH110	GT9530	NS9530	NS520	TH10
		Coated						Coated cermet	Cermet		Uncoated
P	Steel	●	●ⓒ	ⓒ✣	✣	●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless					●ⓒ	●				●
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	●
N	Non-ferrous										●
S	Superalloys					●ⓒ	●				
H	Hard materials										

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	GH110	GT9530	NS9530	NS520	TH10
Precision finishing	TF	CNMG120404-TF	0.4								●		●
		CNMG120408-TF	0.8								●		
	01	CNGG090302-01	0.2								●		
		CNGG090304-01	0.4								●		
		CNGG090308-01	0.8								●		
		CNGG120402-01	0.2								●	●	●
		CNGG120404-01	0.4								●	●	●
		CNGG120408-01	0.8								●	●	●
	C	CNGG120404R-C	0.4						●		●		
		CNGG120404L-C	0.4								●		
		CNGG120408R-C	0.8								●		
		CNGG120408L-C	0.8								●		
Finishing	TSF	CNMG090404E-TSF	0.4		●	●				●	●		
		CNMG090408E-TSF	0.8		●	●				●	●		
		CNMG120404-TSF	0.4	●	●	●		●		●	●		
		CNMG120408-TSF	0.8	●	●	●	●	●		●	●		
		CNMG120412-TSF	1.2		●	●		●					
Finishing (Wiper)	FW	CNMG090404E-FW	0.4	●	●	●				●	●		
		CNMG090408E-FW	0.8	●	●	●				●	●		
		CNMG120404-FW	0.4		●					●	●		
		CNMG120408-FW	0.8	●	●	●				●	●		
	AFW	CNMG120404-AFW	0.4		●	●				●	●		
		CNMG120408-AFW	0.8	●	●	●	●			●			

● : Line up

Reference pages

External toolholders → B198 -
Internal toolholders → B274 -
J series toolholders → B342
TungCap → B215 -, B317, F006 -
PINZBOHR® → F136 - F151
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9115	T9125	T9135	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GT9530	GT720	NS9530	TH10
		Coated										Coated cermet		Cermet	Uncoated
P	Steel	●⊂	⊂✠	✠	⊂	✠	⊂✠					●⊂	●⊂	●⊂	●
M	Stainless				●	⊂	⊂			●	⊂				●
K	Cast iron	●⊂						●	⊂			●⊂	●⊂	●⊂	●
N	Non-ferrous														●
S	Superalloys									●	⊂				
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GT9530	GT720	NS9530	TH10
Finishing	ZF	CNMG090404E-ZF	0.4	●	●												
		CNMG120404-ZF	0.4	●	●									●		●	
		CNMG120408-ZF	0.8	●	●	●								●		●	
	11	CNMG120404-11	0.4											●		●	●
		CNMG120408-11	0.8											●	●	●	●
Finishing of mild steels	17	CNMG120404-17	0.4													●	
		CNMG120408-17	0.8													●	
Finishing	SF	CNMG090304-SF	0.4				●	●	●								
		CNMG090308-SF	0.8				●	●	●								
		CNMG120404-SF	0.4				●	●	●								
		CNMG120408-SF	0.8				●	●	●								
		CNMG120412-SF	1.2				●	●	●								
	CF	CNMG120404-CF	0.4							●	●						
		CNMG120408-CF	0.8							●	●						
		CNMG120412-CF	1.2							●	●						
	HRF	CNMG120404-HRF	0.4									●	●				
		CNMG120408-HRF	0.8									●	●				
		CNMG120412-HRF	1.2									●	●				

● : Line up

Reference pages

External toolholders → B198 -
Internal toolholders → B274 -
J series toolholders → B342
TungCap → B215 -, B317, F006 -
PINZBOHR® → F136 - F151
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T9115	T9125	T9135	T6130	T515	T5115	GT9530	NS9530	NS520
		Coated							Coated cermet	Cermet	
P	Steel	●	●ⓒ	ⓒ✠	✠	✠			●ⓒ	●ⓒ	●ⓒ
M	Stainless					ⓒ					
K	Cast iron	●ⓒ	●ⓒ				●ⓒ	ⓒ	●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6130	T515	T5115	GT9530	NS9530	NS520
Finishing	TS	CNMG120404-TS	0.4		●	●	●				●	●	●
		CNMG120408-TS	0.8	●	●	●	●	●			●	●	●
		CNMG120412-TS	1.2		●	●	●						
Finishing to medium cutting (Wiper)	SW	CNMG090408E-SW	0.8	●	●	●				●			
		CNMG090412E-SW	1.2	●	●	●				●			
		CNMG120408-SW	0.8	●	●	●			●	●			
		CNMG120412-SW	1.2	●	●	●			●	●			
	ASW	CNMG120408-ASW	0.8	●	●	●						●	
		CNMG120412-ASW	1.2	●	●	●							
High feed, small depth of cut	AS	CNMG120404-AS	0.4	●	●	●						●	
		CNMG120408-AS	0.8	●	●	●	●					●	
		CNMG120412-AS	1.2		●	●	●						
Boring (Double sided)	CB	CNMG090304-CB	0.4									●	
		CNMG090308-CB	0.8									●	

● : Line up

Reference pages

External toolholders → B198 -
J series toolholders → B342
PINZBOHR® → F136 - F151
Internal toolholders → B274 -
TungCap → B215 -, B317, F006 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	AH110	AH120	AH725	AH8015	GH330				NS9530							
		Coated																	Cermet							
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠		●	●ⓒ	ⓒ		●ⓒ				●ⓒ							
M	Stainless					●	ⓒ	ⓒ	✠		●	●ⓒ	ⓒ	ⓒ	●ⓒ											
K	Cast iron	●ⓒ	●ⓒ							●ⓒ	●	●ⓒ	ⓒ		●ⓒ				●ⓒ							
N	Non-ferrous																									
S	Superalloys										●	●ⓒ	●	ⓒ												
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	AH110	AH120	AH725	AH8015	GH330				NS9530							
Finishing	NS	CNMG120404-NS	0.4																		●							
		CNMG120408-NS	0.8		●	●															●							
	SS	CNMG090404E-SS	0.4							●	●																	
		CNMG090408E-SS	0.8							●	●																	
		CNMG120404-SS	0.4					●	●	●	●			●			●											
		CNMG120408-SS	0.8					●	●	●	●			●			●											
		CNMG120412-SS	1.2					●	●	●	●						●											
Medium cutting	TM	CNMG090304-TM	0.4		●	●																						
		CNMG090308-TM	0.8		●	●	●																					
		CNMG090404E-TM	0.4		●	●		●	●	●		●		●		●												
		CNMG090408E-TM	0.8		●	●		●	●	●		●		●		●												
		CNMG090412E-TM	1.2		●	●		●	●	●		●		●		●												
		CNMG120404-TM	0.4	●	●	●	●	●	●	●	●	●		●		●												
		CNMG120408-TM	0.8	●	●	●	●	●	●	●	●	●		●	●	●												
		CNMG120412-TM	1.2	●	●	●	●	●	●	●	●	●	●	●		●												
		CNMG120416-TM	1.6		●	●	●	●	●	●	●	●		●		●												
		CNMG160612-TM	1.2	●	●	●	●							●														
		CNMG190608-TM	0.8	●	●	●	●							●														
		CNMG190612-TM	1.2	●	●	●	●							●														
Finishing to medium cutting	AM	CNMG120408-AM	0.8		●	●																						
		CNMG120412-AM	1.2		●	●																						
		CNMG120416-AM	1.6		●	●																						
	NM	CNMG120408-NM	0.8	●	●	●	●														●							
		CNMG120412-NM	1.2		●	●	●																					

● : Line up

Reference pages

External toolholders	→ B198 -	Internal toolholders	→ B274 -
J series toolholders	→ B342	TungCap	→ B215 -, B317, F006 -
PINZBOHR®	→ F136 - F151	Cartridges	→ F152 -

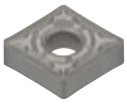
TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120				GT9530	GT720			NS9530	NS520			TH10			
		Coated													Coated cermet				Cermet				Uncoated			
P	Steel	●	●ⓒ	ⓒ✠	✠					●	●ⓒ				●ⓒ	●ⓒ			●ⓒ	●ⓒ			●			
M	Stainless									●	●ⓒ												●			
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	ⓒ	✠	●	●ⓒ				●ⓒ	●ⓒ			●ⓒ	●ⓒ			●			
N	Non-ferrous																						●			
S	Superalloys									●	●ⓒ															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120				GT9530	GT720			NS9530	NS520			TH10			
Finishing to medium cutting	**TQ**	**CNMG120404-TQ**	0.4														●				●							
		CNMG120408-TQ	0.8														●				●							
																												
	ZM	**CNMG090408E-ZM**	0.8		●	●																						
		CNMG120408-ZM	0.8		●	●	●										●				●							
		CNMG120412-ZM	1.2		●	●	●										●											
		CNMG120416-ZM	1.6		●	●																						
Medium cutting	**DM**	**CNMG120404-DM**	0.4		●	●																						
		CNMG120408-DM	0.8	●	●	●	●																					
		CNMG120412-DM	1.2	●	●	●	●																					
	All-round	**CNMG090304**	0.4		●	●															●							
		CNMG090308	0.8	●	●	●	●											●			●							
		CNMG120404	0.4	●	●	●	●	●	●	●	●	●	●				●				●				●			
		CNMG120408	0.8	●	●	●	●	●	●	●	●	●	●				●				●	●			●			
		CNMG120412	1.2	●	●	●	●	●	●	●	●	●	●									●			●			
		CNMG120416	1.6	●	●	●	●	●	●	●	●																	
		CNMG160608	0.8	●	●	●	●		●	●	●		●															
		CNMG160612	1.2	●	●	●	●	●	●	●	●		●															
		CNMG160616	1.6	●	●	●	●	●	●	●	●																	
		CNMG190608	0.8		●	●	●																					
		CNMG190612	1.2	●	●	●	●	●	●	●	●		●															
		CNMG190616	1.6		●	●	●	●	●	●	●		●															

● : Line up

Reference pages

External toolholders → B198 -
Internal toolholders → B274 -
J series toolholders → B342
TungCap → B215 -, B317, F006 -
PINZBOHR® → F136 - F151
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9115	T9125	T9135	AH110	AH120	AH725	GH330				GT720				NS9530				TH10							
		Coated										Coated cermet				Cermet				Uncoated							
P	Steel	●◐	◐✠	✠	●	●◐	◐	●◐				●◐				●◐				●							
M	Stainless				●	●◐	◐	●◐												●							
K	Cast iron	●◐			●	●◐	◐	●◐				●◐				●◐				●							
N	Non-ferrous																			●							
S	Superalloys				●	●◐	●																				
H	Hard materials																										

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	AH110	AH120	AH725	GH330	GT720	NS9530	TH10
Finishing to medium cutting	27	CNMG120404-27	0.4	●	●							●	
		CNMG120408-27	0.8	●	●	●						●	
Medium cutting	28	CNMG120404-28	0.4		●		●	●					
		CNMG120408-28	0.8				●	●					
	33	CNMG120408-33	0.8				●				●		
		CNMG120416-33	1.6	●									
		CNMG160612-33	1.2	●									
		CNMG190612-33	1.2	●									
	37	CNMG120404-37	0.4	●								●	
		CNMG120408-37	0.8	●						●		●	●
		CNMG120412-37	1.2	●									
	38	CNMG120404-38	0.4							●			
		CNMG120408-38	0.8	●					●	●			

● : Line up

Reference pages

External toolholders	→ B204 -	Internal toolholders	→ B292 -
J series toolholders	→ B342	TungCap	→ B215 -, B317, F006 -
PINZBOHR®	→ F136 - F151	Cartridges	→ F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH725	AH8005	AH8015	AH905	GH110					NS9530				TH10	KS05F		
		Coated																	Cermet				Uncoated			
P	Steel	◐	✠	◐✠	✠					◐				●					●◐				●			
M	Stainless	●	◐	◐	✠					◐	●	◐		●									●			
K	Cast iron					●◐	●	◐	✠	◐				●					●◐				●	●		
N	Non-ferrous																						●	●		
S	Superalloys									●	●	◐	◐	●										●		
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH725	AH8005	AH8015	AH905	GH110					NS9530				TH10	KS05F		
Medium cutting	SM	CNMG090404E-SM	0.4	●	●	●																						
		CNMG090408E-SM	0.8	●	●	●																						
		CNMG090412E-SM	1.2	●	●	●																						
		CNMG120404-SM	0.4	●	●	●	●					●																
		CNMG120408-SM	0.8	●	●	●	●					●			●													
		CNMG120412-SM	1.2	●	●	●	●					●																
	CM	CNMG120404-CM	0.4						●	●	●																	
		CNMG120408-CM	0.8					●	●	●	●																	
		CNMG120412-CM	1.2					●	●	●	●																	
		CNMG160608-CM	0.8						●	●	●																	
		CNMG160612-CM	1.2						●	●	●																	
	P	CNGG120404R-P	0.4													●					●				●			
		CNGG120404L-P	0.4													●					●				●			
		CNGG120408R-P	0.8													●									●			
		CNGG120408L-P	0.8													●									●			
Finishing to medium cutting	HRM	CNMG120404-HRM	0.4										●	●														
		CNMG120408-HRM	0.8										●	●														
		CNMG120412-HRM	1.2										●	●														
		CNMG160608-HRM	0.8										●	●														
		CNMG160612-HRM	1.2										●	●														
		CNMG190612-HRM	1.2										●	●														
		CNMG190616-HRM	1.6										●	●														
Medium cutting	HMM	CNMG120404-HMM	0.4												●													
		CNMG120408-HMM	0.8												●											●		
		CNMG120412-HMM	1.2												●													
		CNMG160608-HMM	0.8												●													
		CNMG160612-HMM	1.2												●													
		CNMG160616-HMM	1.6												●													

● : Line up

Reference pages

External toolholders → B198 -
J series toolholders → B342
PINZBOHR® → F136 - F151
Internal toolholders → B274 -
TungCap → B215 -, B317, F006 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT720	NS9530	KS20
		Coated											Coated cermet	Cermet	Uncoated
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠	●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	
M	Stainless					●	ⓒ	ⓒ	✠	●	●ⓒ	●ⓒ			
K	Cast iron	●ⓒ	●ⓒ							●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	ⓒ✠
N	Non-ferrous														ⓒ✠
S	Superalloys									●	●ⓒ				ⓒ✠
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT720	NS9530	KS20
Medium cutting	SA	CNMG120404-SA	0.4					●	●	●	●		●				
		CNMG120408-SA	0.8					●	●	●	●	●	●				●
		CNMG120412-SA	1.2					●	●	●	●		●				●
		CNMG190612-SA	1.2										●				●
		CNMG190616-SA	1.6														●
Medium cutting	S	CNMG120404R-S	0.4			●	●		●	●	●			●	●	●	
		CNMG120404L-S	0.4			●	●		●	●	●			●		●	
		CNMG120408R-S	0.8			●	●		●	●	●			●	●	●	
		CNMG120408L-S	0.8			●	●		●	●	●			●		●	
Medium to heavy cutting	TH	CNMG120408-TH	0.8	●	●	●	●		●				●				
		CNMG120412-TH	1.2	●	●	●	●		●				●				
		CNMG120416-TH	1.6	●	●	●	●										
		CNMG160612-TH	1.2	●	●	●	●						●				
		CNMG160616-TH	1.6	●	●	●	●						●				
		CNMG190612-TH	1.2	●	●	●	●						●				
		CNMG190616-TH	1.6	●	●	●	●						●				
Medium to heavy cutting	THS	CNMG120408-THS	0.8	●	●	●	●										
		CNMG120412-THS	1.2	●	●	●	●										
		CNMG120416-THS	1.6	●	●	●	●										
		CNMG160612-THS	1.2	●	●	●	●										
		CNMG160616-THS	1.6	●	●	●	●										
		CNMG190612-THS	1.2		●	●	●										
		CNMG190616-THS	1.6		●	●	●										
		CNMG190624-THS	2.4		●	●	●										
		CNMG250924-THS	2.4		●	●	●										

● : Line up

Reference pages

External toolholders → B204 -
Internal toolholders → B292 -
J series toolholders → B342
TungCap → B215 -, B317, F006 -
PINZBOHR® → F136 - F151
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125
P	Steel	●ⓒ	ⓒ✠	✠	✠	ⓒ✠	✠				
M	Stainless				ⓒ	ⓒ	✠				
K	Cast iron	●ⓒ						●ⓒ	●	ⓒ	✠
N	Non-ferrous										
S	Superalloys										
H	Hard materials										

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125
				Coated									
Medium to heavy cutting (Single sided)	TRS	CNMM120408-TRS	0.8	●	●	●							
		CNMM120412-TRS	1.2	●	●	●							
		CNMM160612-TRS	1.2	●	●	●							
		CNMM160616-TRS	1.6	●	●	●							
		CNMM190616-TRS	1.6	●	●	●							
		CNMM190624-TRS	2.4	●	●	●							
		CNMM250924-TRS	2.4	●	●	●							
Heavy cutting (Single sided)	TU	CNMM190612-TU	1.2		●	●							
		CNMM190616-TU	1.6		●	●							
		CNMM190624-TU	2.4	●	●	●							
		CNMM250924-TU	2.4		●	●							
	TUS	CNMM190608-TUS	0.8	●	●								
		CNMM190612-TUS	1.2	●	●	●							
		CNMM190616-TUS	1.6	●	●	●							
		CNMM190624-TUS	2.4	●	●	●							
		CNMM190632-TUS	3.2	●	●								
		CNMM250916-TUS	1.6	●	●	●							
		CNMM250924-TUS	2.4	●	●	●							
		CNMM250932-TUS	3.2	●	●								
Medium to heavy cutting	SH	CNMG120408-SH	0.8				●	●	●				
		CNMG120412-SH	1.2				●	●	●				
		CNMG120416-SH	1.6				●	●	●				
		CNMG160612-SH	1.2				●	●	●				
		CNMG160616-SH	1.6				●	●	●				
		CNMG190612-SH	1.2				●	●	●				
		CNMG190616-SH	1.6				●	●	●				
	CH	CNMG120404-CH	0.4								●	●	●
		CNMG120408-CH	0.8							●	●	●	●
		CNMG120412-CH	1.2							●	●	●	●
		CNMG160612-CH	1.2								●	●	●
		CNMG160616-CH	1.6								●	●	●
		CNMG190612-CH	1.2								●	●	●
		CNMG190616-CH	1.6								●	●	●

● : Line up

Reference pages

External toolholders → B204 -
Internal toolholders → B292 -
J series toolholders → B342
TungCap → B215 -, B317, F006 -
PINZBOHR® → F136 - F151
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° with hole

		T9105	T515	T5105	T5115	T5125	NS520	TH10	FX105	LX21	LX11
		Coated					Cermet	Uncoated	Ceramics		
P	Steel	●					●ⓒ	●			
M	Stainless							●			
K	Cast iron	●ⓒ	●ⓒ	●	ⓒ	✠	●ⓒ	●	●ⓒ	●	
N	Non-ferrous							●			
S	Superalloys										
H	Hard materials										●

Application	Chipbreaker	Designation	Corner radius	T9105	T515	T5105	T5115	T5125	NS520	TH10	FX105	LX21	LX11
Finishing to medium cutting	-	CNMA120404	0.4			●	●	●		●			
		CNMA120408	0.8	●	●	●	●	●	●	●	●		
		CNMA120412	1.2	●	●	●	●	●		●	●		
		CNMA120416	1.6	●		●	●	●		●	●		
		CNMA160608	0.8			●	●	●					
		CNMA160612	1.2		●	●	●	●					
		CNMA160616	1.6		●	●	●	●					
		CNMA190612	1.2		●	●	●	●					
		CNMA190616	1.6		●	●	●	●					
	Wiper	CNMA120408W	0.8								●		
		CNMA120412W	1.2								●		●
		CNMA120416W	1.6								●		
	-	CNGA120404	0.4									●	●
		CNGA120408	0.8						●		●	●	●
		CNGA120412	1.2								●	●	●
		CNGA120416	1.6								●		●
		CNGA120420	2.0										●

● : Line up

Reference pages

External toolholders	→ B204 -	Internal toolholders	→ B292 -
TungCap	→ B215 -, B317, F006 -	PINZBOHR®	→ F136 - F151
Cartridges	→ F152 -		

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 80° without hole

		FX105	LX21	LX11	CX710
P	Steel				
M	Stainless				
K	Cast iron	●◐	●		●◐
N	Non-ferrous				
S	Superalloys				
H	Hard materials			●	

Application	Chipbreaker	Designation	Corner radius	FX105	LX21	LX11	CX710
Finishing to medium cutting	-	CNGD120712	1.2	●			
		CNGD120716	1.6	●			
	-	CNMN120408	0.8	●			
		CNMN120412	1.2	●			
	-	CNGN120404	0.4			●	
		CNGN120408	0.8	●		●	
		CNGN120412	1.2	●		●	
		CNGN120416	1.6	●	●	●	
		CNGN120420	2.0	●			
		CNGN120708	0.8	●		●	
		CNGN120712	1.2	●		●	
		CNGN120716	1.6	●		●	
		CNGN120720	2.0			●	
	-	CNGX120712	1.2	●			
		CNGX120716	1.6	●			●
		CNMX120716	1.6	●			

● : Line up

Reference pages

CNGD... : External toolholders → **B254**

CNMN..., CNGN... : External toolholders → **B234**, Internal toolholders → **B311**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9105	T9115	T9125	T9135	AH120	GH110	GT9530	GT720	NS9530	NS520	TH10
		Coated						Coated cermet		Cermet		Uncoated
P	Steel	●	◐	◐✣	✣	◐	●	◐	◐	◐	◐	●
M	Stainless					◐	●					●
K	Cast iron	◐	◐			◐	●	◐	◐	◐	◐	●
N	Non-ferrous											●
S	Superalloys					◐	●					
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	GH110	GT9530	GT720	NS9530	NS520	TH10
Precision finishing	TF	DNMG150404-TF	0.4									●		●
		DNMG150408-TF	0.8									●		
	01	DNGG110402-01	0.2									●		
		DNGG110404-01	0.4									●	●	
		DNGG110408-01	0.8								●	●		
		DNGG150402-01	0.2									●	●	●
		DNGG150404-01	0.4						●			●	●	●
		DNGG150408-01	0.8						●			●	●	●
Finishing	TSF	DNMG110404E-TSF	0.4		●	●				●		●		
		DNMG110408E-TSF	0.8		●	●				●		●		
		DNMG110412E-TSF	1.2		●	●				●		●		
		DNMG150404-TSF	0.4	●	●	●	●	●		●		●		
		DNMG150408-TSF	0.8	●	●	●	●	●		●		●		
		DNMG150412-TSF	1.2	●	●	●	●	●						
		DNMG150604-TSF	0.4		●	●				●		●		
		DNMG150608-TSF	0.8	●	●	●	●			●		●		
		DNMG150612-TSF	1.2	●	●	●	●							
Finishing (Wiper)	FW	DNMG110404E-FW	0.4		●									
		DNMG110408E-FW	0.8		●									
		DNMG150404-FW	0.4		●									
		DNMG150408-FW	0.8		●									
		DNMG150604-FW	0.4		●									
		DNMG150608-FW	0.8		●									
Finishing	ZF	DNMG110404E-ZF	0.4		●	●								
		DNMG150404-ZF	0.4		●	●	●			●		●		
		DNMG150408-ZF	0.8		●	●	●			●		●		
		DNMG150412-ZF	1.2		●	●	●							
		DNMG150604-ZF	0.4		●	●								
		DNMG150608-ZF	0.8		●	●	●							
		DNMG150612-ZF	1.2		●	●								

● : Line up

Reference pages

External toolholders → B199 -
J series toolholders → B342
Internal toolholders → B276 -
TungCap → B215 -, B317, F008 -

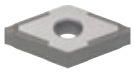
TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9115	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GH330					NS9530				TH10							
		Coated													Cermet				Uncoated							
P	Steel	●ⓒ	ⓒ	✠	ⓒ✠					●ⓒ					●ⓒ				●							
M	Stainless		●	ⓒ	ⓒ			●	ⓒ	●ⓒ									●							
K	Cast iron	●ⓒ				●	ⓒ			●ⓒ					●ⓒ				●							
N	Non-ferrous																		●							
S	Superalloys							●	ⓒ																	
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9115	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GH330	NS9530	TH10
Finishing	11	DNMG110404-11	0.4										●	
		DNMG110408-11	0.8										●	
		DNMG150404-11	0.4									●	●	●
		DNMG150408-11	0.8	●									●	
Finishing of mild steels	17	DNMG150404-17	0.4										●	
		DNMG150408-17	0.8										●	
Finishing	SF	DNMG150404-SF	0.4		●	●	●							
		DNMG150408-SF	0.8		●	●	●							
		DNMG150604-SF	0.4		●	●	●							
		DNMG150608-SF	0.8		●	●	●							
	CF	DNMG150404-CF	0.4					●	●					
		DNMG150408-CF	0.8					●	●					
		DNMG150412-CF	1.2					●	●					
		DNMG150604-CF	0.4					●	●					
		DNMG150608-CF	0.8					●	●					
		DNMG150612-CF	1.2					●	●					
	HRF	DNMG150404-HRF	0.4							●	●			
		DNMG150408-HRF	0.8							●	●			
		DNMG150604-HRF	0.4							●	●			
		DNMG150608-HRF	0.8							●	●			

● : Line up

Reference pages

External toolholders → B199 -
J series toolholders → B342
Internal toolholders → B276 -
TungCap → B215 -, B317, F008 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9105	T9115	T9125	T9135	GT9530	NS9530	NS520
P	Steel	●	●ⓒ	ⓒ✠	✠	●ⓒ	●ⓒ	●ⓒ
M	Stainless							
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous							
S	Superalloys							
H	Hard materials							

Application	Chipbreaker	Designation	Corner radius	T9105 (Coated)	T9115 (Coated)	T9125 (Coated)	T9135 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	NS520 (Cermet)
Finishing	TS	DNMG150404-TS	0.4		●	●	●	●	●	●
		DNMG150408-TS	0.8	●	●	●	●	●	●	●
		DNMG150412-TS	1.2	●	●	●	●			
		DNMG150604-TS	0.4					●	●	●
		DNMG150608-TS	0.8		●	●		●	●	●
		DNMG150612-TS	1.2		●	●				
Finishing to medium cutting (Wiper)	SW	DNMG110408E-SW	0.8		●					
		DNMG110412E-SW	1.2		●					
		DNMG150408-SW	0.8		●					
		DNMG150412-SW	1.2		●					
		DNMG150608-SW	0.8		●					
		DNMG150612-SW	1.2		●					
High feed, small depth of cut	AS	DNMG150404-AS	0.4		●		●		●	
		DNMG150408-AS	0.8		●	●	●		●	
		DNMG150412-AS	1.2		●	●	●			
		DNMG150604-AS	0.4		●					
		DNMG150608-AS	0.8		●	●				
		DNMG150612-AS	1.2		●					
Boring (Double sided)	CB	DNMG110404-CB	0.4					●	●	
		DNMG110408-CB	0.8		●			●	●	
Finishing	NS	DNMG150404-NS	0.4			●			●	
		DNMG150408-NS	0.8	●	●	●			●	

● : Line up

Reference pages

External toolholders → B199 -
J series toolholders → B342
Internal toolholders → B276 -
TungCap → B215 -, B317, F008 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT9530	NS9530	KS20
		Coated											Coated cermet	Cermet	Uncoated
P	Steel	●	●⊂	⊂✠	✠	⊂	✠	⊂✠	✠	●	●⊂	●⊂	●⊂	●⊂	
M	Stainless					●	⊂	⊂	✠	●	●⊂	●⊂			
K	Cast iron	●⊂	●⊂							●	●⊂	●⊂	●⊂	●⊂	⊂✠
N	Non-ferrous														⊂✠
S	Superalloys									●	●⊂				⊂✠
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT9530	NS9530	KS20
Finishing	SS	DNMG110404E-SS	0.4							●	●						
		DNMG110408E-SS	0.8							●	●						
		DNMG150404-SS	0.4					●	●	●	●			●			
		DNMG150408-SS	0.8					●	●	●	●			●			●
		DNMG150412-SS	1.2					●	●	●	●						
		DNMG150604-SS	0.4					●	●	●	●			●			
		DNMG150608-SS	0.8					●	●	●	●			●			
		DNMG150612-SS	1.2					●	●	●	●						
Medium cutting	TM	DNMG110404E-TM	0.4		●	●											
		DNMG110408E-TM	0.8		●	●											
		DNMG110412E-TM	1.2		●	●											
		DNMG110404-TM	0.4		●	●	●										
		DNMG110408-TM	0.8		●	●	●										
		DNMG150404-TM	0.4	●	●	●	●						●				
		DNMG150408-TM	0.8	●	●	●	●						●				
		DNMG150412-TM	1.2	●	●	●	●					●	●				
		DNMG150416-TM	1.6		●	●											
		DNMG150604-TM	0.4	●	●	●	●						●				
		DNMG150608-TM	0.8	●	●	●	●						●				
		DNMG150612-TM	1.2	●	●	●	●						●				
		DNMG150616-TM	1.6	●	●	●	●										
Finishing to medium cutting	AM	DNMG150408-AM	0.8		●	●											
		DNMG150412-AM	1.2		●	●											
		DNMG150416-AM	1.6		●	●											
		DNMG150608-AM	0.8		●	●											
		DNMG150612-AM	1.2		●	●											
		DNMG150616-AM	1.6		●	●											
	NM	DNMG150408-NM	0.8		●	●	●								●	●	
		DNMG150412-NM	1.2		●	●	●										
		DNMG150608-NM	0.8												●	●	

● : Line up

Reference pages

External toolholders → B199 -
Internal toolholders → B276 -
J series toolholders → B342
TungCap → B215 -, B317, F008 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120				GT9530				NS9530	NS520			TH10			
		Coated													Coated cermet				Cermet				Uncoated			
P	Steel	●	●ⓒ	ⓒ✠	✠					●	●ⓒ				●ⓒ				●ⓒ	●ⓒ			●			
M	Stainless									●	●ⓒ												●			
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	ⓒ	✠	●	●ⓒ				●ⓒ				●ⓒ	●ⓒ			●			
N	Non-ferrous																						●			
S	Superalloys									●	●ⓒ															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120				GT9530				NS9530	NS520			TH10			
Finishing to medium cutting	**TQ**	**DNMG150404-TQ**	0.4														●				●							
		DNMG150408-TQ	0.8														●				●							
	ZM	**DNMG110408E-ZM**	0.8		●	●																						
		DNMG150408-ZM	0.8		●	●	●										●				●							
		DNMG150412-ZM	1.2		●	●	●																					
		DNMG150608-ZM	0.8		●	●	●																					
		DNMG150612-ZM	1.2		●	●																						
Medium cutting	**DM**	**DNMG150408-DM**	0.8		●	●	●																					
		DNMG150412-DM	1.2	●	●	●	●																					
		DNMG150604-DM	0.4		●																							
		DNMG150608-DM	0.8		●	●	●																					
		DNMG150612-DM	1.2	●	●	●	●																					
		DNMG150616-DM	1.6	●																								
	All-round	**DNMG110404**	0.4		●	●			●	●	●						●				●							
		DNMG110408	0.8	●	●	●	●		●	●	●						●				●							
		DNMG150404	0.4		●	●	●		●	●	●	●	●				●				●	●			●			
		DNMG150408	0.8	●	●	●	●	●	●	●	●	●	●				●				●	●			●			
		DNMG150412	1.2	●	●	●	●	●	●	●	●	●	●								●	●			●			
		DNMG150416	1.6		●	●			●	●	●																	
		DNMG150604	0.4		●	●			●	●	●														●			
		DNMG150608	0.8	●	●	●	●	●	●	●	●														●			
		DNMG150612	1.2	●	●	●	●	●	●	●	●														●			
		DNMG150616	1.6		●	●																						
Finishing to medium cutting	**27**	**DNMG150404-27**	0.4			●															●							
		DNMG150408-27	0.8		●	●															●							
		DNMG150412-27	1.2			●																						

● : Line up

Reference pages

External toolholders → B199 -
J series toolholders → B342
Internal toolholders → B276 -
TungCap → B215 -, B317, F008 -

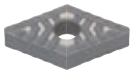
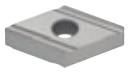
TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9115	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT9530	NS9530	TH10
		Coated								Coated cermet	Cermet	Uncoated
P	Steel	●⊂	⊂	✠	⊂✠	✠	●	●⊂	●⊂	●⊂	●⊂	●
M	Stainless		●	⊂	⊂	✠	●	●⊂	●⊂			●
K	Cast iron	●⊂					●	●⊂	●⊂	●⊂	●⊂	●
N	Non-ferrous											●
S	Superalloys						●	●⊂				
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T6120	T6130	AH630	AH645	AH110	AH120	GH330	GT9530	NS9530	TH10
Medium cutting	28	DNMG150404-28	0.4							●				
		DNMG150408-28	0.8							●				
	33	DNMG150404-33	0.4						●					
		DNMG150408-33	0.8						●					●
	37	DNMG150404-37	0.4										●	
		DNMG150408-37	0.8								●		●	
														
	38	DNMG150412-38	1.2	●										
	Parallel	DNGG150404R	0.4									●	●	
		DNGG150404L	0.4									●	●	
		DNGG150408R	0.8										●	
		DNGG150408L	0.8										●	
	SM	DNMG110404E-SM	0.4		●	●	●							
		DNMG110408E-SM	0.8		●	●	●							
		DNMG150404-SM	0.4		●	●	●	●						
		DNMG150408-SM	0.8		●	●	●	●						
		DNMG150412-SM	1.2		●	●	●	●						
		DNMG150604-SM	0.4		●	●	●	●						
		DNMG150608-SM	0.8		●	●	●	●						
		DNMG150612-SM	1.2		●	●	●	●						

● : Line up

Reference pages

External toolholders → B199 -
J series toolholders → B342
Internal toolholders → B276 -
TungCap → B215 -, B317, F008 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH8005	AH8015	AH905	GH110	GH330	NS9530	TH10
		Coated															Cermet	Uncoated
P	Steel	⊂✠	✠	✠	⊂✠	✠					●⊂				●	●⊂	●⊂	●
M	Stainless			⊂	⊂	✠					●⊂	●	⊂		●	●⊂		●
K	Cast iron						●⊂	●	⊂	✠	●⊂				●	●⊂	●⊂	●
N	Non-ferrous																	●
S	Superalloys										●⊂	●	⊂	⊂	●			
H	Hard materials																	

Application	Chipbreaker	Designation	Corner radius	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH8005	AH8015	AH905	GH110	GH330	NS9530	TH10
Medium cutting	CM	DNMG150404-CM	0.4							●	●	●								
		DNMG150408-CM	0.8						●	●	●	●								
		DNMG150412-CM	1.2						●	●	●	●								
		DNMG150604-CM	0.4							●	●	●								
		DNMG150608-CM	0.8							●	●	●								
		DNMG150612-CM	1.2							●	●	●								
	P	DNGG150402R-P	0.2														●			●
		DNGG150402L-P	0.2														●			●
		DNGG150404R-P	0.4														●			●
		DNGG150404L-P	0.4														●			●
		DNGG150408R-P	0.8																	●
		DNGG150408L-P	0.8																	●
Finishing to medium cutting	HRM	DNMG150404-HRM	0.4											●	●					
		DNMG150408-HRM	0.8											●	●					
		DNMG150412-HRM	1.2											●	●					
		DNMG150604-HRM	0.4											●	●					
		DNMG150608-HRM	0.8											●	●					
		DNMG150612-HRM	1.2											●	●					
Medium cutting	HMM	DNMG150404-HMM	0.4													●				
		DNMG150408-HMM	0.8													●				
		DNMG150412-HMM	1.2													●				
	SA	DNMG150404-SA	0.4										●							
		DNMG150408-SA	0.8										●							
		DNMG150604-SA	0.4										●							
		DNMG150608-SA	0.8										●							
	S	DNMG150404R-S	0.4	●	●	●	●	●										●	●	
		DNMG150404L-S	0.4	●	●	●	●	●										●	●	
		DNMG150408R-S	0.8	●	●	●	●	●										●	●	
		DNMG150408L-S	0.8	●	●	●	●	●										●	●	
		DNMG150604R-S	0.4	●	●	●	●	●												
		DNMG150604L-S	0.4	●	●	●	●	●												
		DNMG150608R-S	0.8	●	●	●	●	●										●		
		DNMG150608L-S	0.8	●	●	●	●	●												

Reference pages

External toolholders → B205 -
J series toolholders → B342
Internal toolholders → B295 -
TungCap → B215 -, F008 -

● : Line up

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° with hole

		T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	GT720	NS520	TH10	FX105	LX21	LX11
		Coated											Coated cermet	Cermet	Uncoated	Ceramics		
P	Steel	●◐	◐✠	✠	✠	◐✠	✠					●◐	●◐	●◐	●			
M	Stainless				◐	◐	✠					●◐			●			
K	Cast iron	●◐						●◐	●	◐	✠	●◐	●◐	●◐	●	●◐	●	
N	Non-ferrous														●			
S	Superalloys											●◐						
H	Hard materials																	●

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	GT720	NS520	TH10	FX105	LX21	LX11
Medium to heavy cutting	TH	DNMG150408-TH	0.8	●	●	●								●						
		DNMG150412-TH	1.2	●	●	●								●						
		DNMG150416-TH	1.6	●	●															
		DNMG150608-TH	0.8	●	●	●								●						
		DNMG150612-TH	1.2	●	●	●								●						
		DNMG150616-TH	1.6	●	●	●														
	THS	DNMG150408-THS	0.8	●	●	●														
		DNMG150412-THS	1.2	●	●	●														
		DNMG150416-THS	1.6	●	●															
		DNMG150608-THS	0.8	●	●	●														
		DNMG150612-THS	1.2	●	●	●														
		DNMG150616-THS	1.6	●	●															
	SH	DNMG150408-SH	0.8				●	●	●											
		DNMG150412-SH	1.2				●	●	●											
		DNMG150416-SH	1.6				●	●	●											
		DNMG150608-SH	0.8				●	●	●											
		DNMG150612-SH	1.2				●	●	●											
	CH	DNMG150404-CH	0.4								●	●	●							
		DNMG150408-CH	0.8							●	●	●	●							
		DNMG150412-CH	1.2							●	●	●	●							
		DNMG150604-CH	0.4								●	●	●							
		DNMG150608-CH	0.8								●	●	●							
		DNMG150612-CH	1.2								●	●	●							
Finishing to medium cutting	-	DNMA150404	0.4							●	●	●	●		●	●	●			
		DNMA150408	0.8							●	●	●	●				●			
		DNMA150412	1.2								●	●	●							
		DNMA150604	0.4							●	●	●	●							
		DNMA150608	0.8							●	●	●	●							
		DNMA150612	1.2								●	●	●							
	-	DNGA150404	0.4													●	●		●	●
		DNGA150408	0.8													●	●	●	●	●
		DNGA150412	1.2															●	●	●
		DNGA150416	1.6															●		
		DNGA150608	0.8																	●
		DNGA150612	1.2																	●
		DNGA150616	1.6																	●
		DNGA150620	2.0																	●

● : Line up

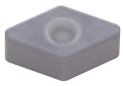
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 55° without hole

P	Steel		
M	Stainless		
K	Cast iron	●◐	
N	Non-ferrous		
S	Superalloys		
H	Hard materials		●

Application	Chipbreaker	Designation	Corner radius	Ceramics FX105	Ceramics LX11
Finishing to medium cutting	- 	DNGD150708	0.8	●	
		DNGD150712	1.2	●	
		DNGD150716	1.6	●	
	-	DNGN150404	0.4		●
		DNGN150408	0.8		●
		DNGN150412	1.2	●	●
		DNGN150416	1.6	●	
		DNGN150708	0.8		●
		DNGN150712	1.2		●
		DNGN150716	1.6		●
	-	DNGX150712	1.2	●	
		DNMX150716	1.6	●	

● : Line up

Insert

Negative

D

Reference pages

External toolholders → **B205 -**
J series toolholders → **B342**
Internal toolholders → **B295 -**
TungCap → **B215 -, F008 -**

DNGD... : External toolholders → **B254 -**

DNGN... : External toolholders → **B235**

TurnLine - Insert

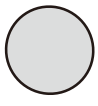
● : Continuous cutting
⊂ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Round, with hole

		T9105	T9115	T9125	T9135	AH120	TH10	LX11
		Coated					Uncoated	Ceramics
P	Steel	●	●⊂	⊂✣	✣	●⊂	●	
M	Stainless					●⊂	●	
K	Cast iron	●⊂	●⊂			●⊂	●	
N	Non-ferrous						●	
S	Superalloys					●⊂		
H	Hard materials							●

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	TH10	LX11
Heavy cutting	61	RNMG090300-61	-		●	●				
		RNMG120400-61	-	●	●	●	●	●	●	
		RNMG150600-61	-		●	●				
		RNMG190600-61	-		●	●	●			
		RNMG250900-61	-		●	●				
Finishing to medium cutting	-	RNGA120400	-							●



Round, without hole

		FX105	LX11
		Ceramics	
P	Steel		
M	Stainless		
K	Cast iron	●⊂	
N	Non-ferrous		
S	Superalloys		
H	Hard materials		●

Application	Chipbreaker	Designation	Corner radius	FX105	LX11
Finishing to medium cutting	-	RNGN120400	-	●	●
		RNGN120700	-	●	●

● : Line up

Reference pages

RNMG..., RNGA... : External toolholders → **B211 -**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9115	T9125	GT9530	NS9530	NS520	X407
P	Steel	●◐	◐✠	●◐	●◐	●◐	●
M	Stainless						
K	Cast iron	●◐		●◐	●◐	●◐	●
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	T9115 (Coated)	T9125 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	NS520 (Cermet)	X407 (Cermet)
Precision finishing	TF	SNMG120404-TF	0.4				●		
		SNMG120408-TF	0.8				●		
	01	SNGG090302-01	0.2				●	●	
		SNGG090304-01	0.4				●		
		SNGG090308-01	0.8				●	●	
		SNGG120402-01	0.2				●		
		SNGG120404-01	0.4				●		
		SNGG120408-01	0.8				●	●	
	B ~ D	SNGG090304R-B	0.4			●	●		●
		SNGG090304L-B	0.4			●	●		●
		SNGG090308R-B	0.8				●		●
		SNGG090308L-B	0.8				●		●
		SNGG120404R-C	0.4			●	●		
		SNGG120404L-C	0.4			●	●		●
		SNGG120408R-C	0.8				●		
		SNGG120408L-C	0.8				●		●
		SNGG120408R-D	0.8				●		
		SNGG120408L-D	0.8				●		
Finishing	TSF	SNMG120404-TSF	0.4	●	●	●	●		
		SNMG120408-TSF	0.8	●	●	●	●		
		SNMG120412-TSF	1.2	●	●				

● : Line up

Reference pages

External toolholders → B208 -
Internal toolholders → B293 -
Cartridges → F152 -

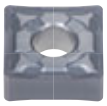
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	NS9530	TH10
		Coated							Cermet	Uncoated
P	Steel	◐	✠	◐✠					●◐	●
M	Stainless	●	◐	◐			●	◐		●
K	Cast iron				●	◐			●◐	●
N	Non-ferrous									●
S	Superalloys						●	◐		
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	NS9530	TH10
Finishing	11	SNMG120404-11	0.4								●	
		SNMG120408-11	0.8								●	●
Finishing of mild steels	17	SNMG120408-17	0.8								●	
Finishing	SF	SNMG120404-SF	0.4	●	●	●						
		SNMG120408-SF	0.8	●	●	●						
	CF	SNMG120408-CF	0.8				●	●				
		SNMG120412-CF	1.2				●	●				
	HRF	SNMG120408-HRF	0.8						●	●		
		SNMG120412-HRF	1.2						●	●		
												

● : Line up

Reference pages

External toolholders → B208 -
Internal toolholders → B293 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	GH330	GT9530	NS9530
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠	●ⓒ	●ⓒ	●ⓒ	●ⓒ
M	Stainless					●	ⓒ	ⓒ	✠	●ⓒ	●ⓒ		
K	Cast iron	●ⓒ	●ⓒ							●ⓒ	●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous												
S	Superalloys									●ⓒ			
H	Hard materials												

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	GH330	GT9530	NS9530
				Coated										Coated cermet	Cermet
Finishing	TS	SNMG120404-TS	0.4		●	●								●	●
		SNMG120408-TS	0.8	●	●	●	●							●	●
		SNMG120412-TS	1.2		●	●	●								
High feed, small depth of cut	AS	SNMG120404-AS	0.4												●
		SNMG120408-AS	0.8	●	●										●
Finishing	NS	SNMG120408-NS	0.8		●	●									
	SS	SNMG120404-SS	0.4					●	●	●	●		●		
		SNMG120408-SS	0.8					●	●	●	●		●		
		SNMG120412-SS	1.2					●	●	●	●				
Medium cutting	TM	SNMG090304-TM	0.4		●	●	●								
		SNMG090308-TM	0.8		●	●	●								
		SNMG120404-TM	0.4		●	●						●			
		SNMG120408-TM	0.8	●	●	●	●					●			
		SNMG120412-TM	1.2	●	●	●	●					●			
		SNMG120416-TM	1.6		●	●	●								
		SNMG150608-TM	0.8		●										
		SNMG150612-TM	1.2		●							●			
		SNMG190608-TM	0.8		●										
		SNMG190612-TM	1.2		●							●			

● : Line up

Reference pages

External toolholders → **B208 -**
Internal toolholders → **B293 -**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9105	T9115	T9125	T9135	T6130	T515	T5105	T5115	T5125	AH110	AH120			GT720				NS9530	NS520			TH10			
		Coated													Coated cermet				Cermet				Uncoated			
P	Steel	●	●ⓒ	ⓒ✠	✠	✠					●	●ⓒ			●ⓒ				●ⓒ	●ⓒ			●			
M	Stainless					ⓒ					●	●ⓒ											●			
K	Cast iron	●ⓒ	●ⓒ				●ⓒ	●	ⓒ	✠	●	●ⓒ			●ⓒ				●ⓒ	●ⓒ			●			
N	Non-ferrous																						●			
S	Superalloys										●	●ⓒ														
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6130	T515	T5105	T5115	T5125	AH110	AH120			GT720				NS9530	NS520			TH10			
Finishing to medium cutting	**ZM**	**SNMG120408-ZM**	0.8		●	●	●																					
		SNMG120412-ZM	1.2		●	●	●																					
Medium cutting	**DM**	**SNMG120408-DM**	0.8		●	●																						
		SNMG120412-DM	1.2		●	●	●																					
Medium cutting	**All-round**	**SNMG090304**	0.4		●	●															●				●			
		SNMG090308	0.8		●	●	●														●				●			
		SNMG120404	0.4		●	●	●			●	●	●	●	●							●	●			●			
		SNMG120408	0.8	●	●	●	●		●	●	●	●	●	●			●				●	●			●			
		SNMG120412	1.2	●	●	●	●		●	●	●	●	●	●											●			
		SNMG120416	1.6	●	●	●	●			●	●	●																
		SNMG120420	2.0		●	●	●			●	●	●																
		SNMG150612	1.2		●	●	●	●	●																			
		SNMG150616	1.6		●	●			●																			
		SNMG190612	1.2		●	●	●	●	●	●	●	●		●														
		SNMG190616	1.6		●	●	●		●	●	●	●		●														
		SNMG250724	2.4		●	●	●																					
Finishing to medium cutting	**27**	**SNMG120408-27**	0.8			●															●							
		SNMG120412-27	1.2			●																						

● : Line up

Reference pages

External toolholders → **B208 -**
Internal toolholders → **B293 -**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9115	T6120	T6130	AH630	AH645	T5105	T5115	T5125	AH725	AH8005	AH8015	GH110	GH330	NS9530	TH10
		Coated													Cermet	Uncoated
P	Steel	●⊂	⊂	✠	⊂✠	✠				⊂			●	●⊂	●⊂	●
M	Stainless		●	⊂	⊂	✠				⊂	●	⊂	●	●⊂		●
K	Cast iron	●⊂					●	⊂	✠	⊂			●	●⊂	●⊂	●
N	Non-ferrous															●
S	Superalloys									●	●	⊂	●			
H	Hard materials															

Application	Chipbreaker	Designation	Corner radius	T9115	T6120	T6130	AH630	AH645	T5105	T5115	T5125	AH725	AH8005	AH8015	GH110	GH330	NS9530	TH10
Medium cutting	37	SNMG120408-37	0.8	●												●	●	
	SM	SNMG120408-SM	0.8		●	●	●	●				●						
		SNMG120412-SM	1.2		●	●	●	●										
	CM	SNMG120408-CM	0.8						●	●	●							
		SNMG120412-CM	1.2						●	●	●							
	P	SNGG090304R-P	0.4												●			●
		SNGG090304L-P	0.4												●			●
		SNGG090308R-P	0.8												●	●		●
		SNGG090308L-P	0.8															●
		SNGG120404R-P	0.4												●			●
		SNGG120404L-P	0.4												●			●
		SNGG120408R-P	0.8												●			●
		SNGG120408L-P	0.8												●			●
Finishing to medium cutting	HRM	SNMG120408-HRM	0.8										●	●				
		SNMG120412-HRM	1.2										●	●				
		SNMG150608-HRM	0.8										●	●				
		SNMG150612-HRM	1.2										●	●				
		SNMG190612-HRM	1.2										●	●				
		SNMG190616-HRM	1.6										●	●				

● : Line up

Reference pages

External toolholders → **B208 -**
Internal toolholders → **B293 -**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	AH905	GH330	NS9530	KS20
		Coated											Cermet	Uncoated
P	Steel	●	●⊂	⊂✠	✠	⊂	✠	⊂✠	✠	●⊂		●⊂	●⊂	
M	Stainless					●	⊂	⊂	✠	●⊂		●⊂		
K	Cast iron	●⊂	●⊂							●⊂		●⊂	●⊂	⊂✠
N	Non-ferrous													⊂✠
S	Superalloys									●⊂	⊂			⊂✠
H	Hard materials													

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	AH905	GH330	NS9530	KS20
Medium cutting	HMM	SNMG120408-HMM	0.8										●			
		SNMG120412-HMM	1.2										●			
	SA	SNMG120404-SA	0.4					●	●	●	●	●				
		SNMG120408-SA	0.8					●	●	●	●	●				●
		SNMG120412-SA	1.2					●	●	●	●	●				
		SNMG190612-SA	1.2													●
	S	SNMG120404R-S	0.4			●	●		●	●	●				●	
		SNMG120404L-S	0.4			●	●		●	●	●				●	
		SNMG120408R-S	0.8			●	●		●	●	●			●	●	
		SNMG120408L-S	0.8			●	●		●	●	●			●	●	
Medium to heavy cutting	TH	SNMG120408-TH	0.8		●	●	●					●				
		SNMG120412-TH	1.2		●	●	●					●				
		SNMG150612-TH	1.2	●	●	●						●				
		SNMG150616-TH	1.6	●	●	●						●				
		SNMG190612-TH	1.2	●	●	●	●					●				
		SNMG190616-TH	1.6	●	●	●	●					●				
	THS	SNMG120408-THS	0.8		●	●	●									
		SNMG120412-THS	1.2		●	●	●									
		SNMG150612-THS	1.2		●	●										
		SNMG150616-THS	1.6		●	●										
		SNMG190608-THS	0.8		●	●	●									
		SNMG190612-THS	1.2		●	●	●									
		SNMG190616-THS	1.6		●	●	●									
		SNMG190624-THS	2.4		●	●	●									
		SNMG250716-THS	1.6		●	●	●									
		SNMG250724-THS	2.4		●	●	●									

● : Line up

Reference pages

External toolholders → B208 -
Internal toolholders → B293 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		T9115	T9125	T9135	T6130	AH630	AH645	T5105	T5115	T5125
P	Steel	●◐	◐✠	✠	✠	◐✠	✠			
M	Stainless				◐	◐	✠			
K	Cast iron	●◐						●	◐	✠
N	Non-ferrous									
S	Superalloys									
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6130	AH630	AH645	T5105	T5115	T5125
				Coated								
Medium to heavy cutting (Single sided)	TRS	SNMM150612-TRS	1.2	●	●	●						
		SNMM150616-TRS	1.6	●	●	●						
		SNMM190616-TRS	1.6	●	●	●						
		SNMM190624-TRS	2.4	●	●	●						
		SNMM250924-TRS	2.4	●	●	●						
Heavy cutting (Single sided)	TU	SNMM190616-TU	1.6			●						
		SNMM190624-TU	2.4		●	●						
		SNMM250724-TU	2.4		●	●						
		SNMM250924-TU	2.4	●	●							
	TUS	SNMM190612-TUS	1.2	●	●	●						
		SNMM190616-TUS	1.6	●	●	●						
		SNMM190624-TUS	2.4	●	●	●						
		SNMM250724-TUS	2.4	●	●	●						
		SNMM250732-TUS	3.2	●	●							
		SNMM250924-TUS	2.4	●	●	●						
		SNMM250932-TUS	3.2	●	●							
Medium to heavy cutting	SH	SNMG120408-SH	0.8				●	●	●			
		SNMG120412-SH	1.2				●	●	●			
		SNMG150612-SH	1.2				●	●	●			
		SNMG150616-SH	1.6				●	●	●			
		SNMG190612-SH	1.2				●	●	●			
		SNMG190616-SH	1.6				●	●	●			
	CH	SNMG120408-CH	0.8							●	●	●
		SNMG120412-CH	1.2							●	●	●
		SNMG120416-CH	1.6							●	●	●

● : Line up

Reference pages

External toolholders → **B208 -**
Internal toolholders → **B293 -**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° with hole

		Coated							Coated cermet				Cermet				Uncoated				Ceramics					
P	Steel								●◐				●◐				●									
M	Stainless																●									
K	Cast iron	●◐	●	◐	✠				●◐				●◐				●				●◐	●				
N	Non-ferrous																●									
S	Superalloys																									
H	Hard materials																						●			

Application	Chipbreaker	Designation	Corner radius	T515	T5105	T5115	T5125				GT720				NS520				TH10				FX105	LX21	LX11			
Finishing to medium cutting	-	SNMA090308	0.8		●														●									
		SNMA120404	0.4		●	●	●				●																	
		SNMA120408	0.8	●	●	●	●								●				●				●					
		SNMA120412	1.2	●	●	●	●								●				●				●					
		SNMA120416	1.6		●	●	●																					
	-	SNGA090304	0.4																●									
		SNGA120404	0.4								●								●						●			
		SNGA120408	0.8												●				●				●		●			
		SNGA120412	1.2																●				●	●	●			
		SNGA120416	1.6																				●		●			

● : Line up

Reference pages

External toolholders → B208 -
Internal toolholders → B293 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Square, 90° without hole

		AH120	TH10	FX105	LX21	LX11
P	Steel	●◐	●			
M	Stainless	●◐	●			
K	Cast iron	●◐	●	●◐	●	
N	Non-ferrous		●			
S	Superalloys	●◐				
H	Hard materials					●

Application	Chipbreaker	Designation	Corner radius	AH120 (Coated)	TH10 (Uncoated)	FX105 (Ceramics)	LX21 (Ceramics)	LX11 (Ceramics)
Finishing to medium cutting	-	SNGD120712	1.2			●		
		SNGD120716	1.6			●		
	-	SNGN090308	0.8				●	●
		SNGN120304	0.4					●
		SNGN120312	1.2					●
		SNGN120404	0.4					●
		SNGN120408	0.8		●	●	●	●
		SNGN120412	1.2			●	●	●
		SNGN120416	1.6			●	●	●
		SNGN120420	2.0			●	●	
		SNGN120424	2.4			●		
		SNGN120708	0.8					●
		SNGN120712	1.2			●		●
		SNGN120716	1.6			●		●
		SNGN120720	2.0					●
	-	SNMN120408	0.8		●			
		SNMN120412	1.2	●				
	-	SNGX120712	1.2			●		
		SNGX120716	1.6			●		
		SNMX120712	1.2			●		
		SNMX120716	1.6			●		

● : Line up

Reference pages

SNGD... : External toolholders → **B255**

SNGN..., SNMN... : External toolholders → **B241**, Internal toolholders → **B312**

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		GH110	GH330	SH725	GT9530	GT720	NS9530	NS520	X407	TH10
		Coated			Coated cermet		Cermet			Uncoated
P	Steel	●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●	●
M	Stainless	●	●ⓒ	●ⓒ						●
K	Cast iron	●	●ⓒ		●ⓒ	●ⓒ	●ⓒ	●ⓒ	●	●
N	Non-ferrous									●
S	Superalloys	●								
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	GH110	GH330	SH725	GT9530	GT720	NS9530	NS520	X407	TH10
Precision finishing	TF	TNMG160404-TF	0.4						●	●		●
		TNMG160408-TF	0.8						●	●		
	01	TNGG110302-01	0.2						●			
		TNGG110304-01	0.4						●			
		TNGG110308-01	0.8						●	●		
		TNGG160402-01	0.2	●					●	●		●
		TNGG160404-01	0.4	●					●	●		●
		TNGG160408-01	0.8	●					●	●		
		TNGG160412-01	1.2					●	●			
Precision finishing (Sharp edge)	01	TNGG160402F-01	0.2			●						
		TNGG160404F-01	0.4			●						
		TNGG160408F-01	0.8			●						
Precision finishing	A~C	TNGG110304R-A	0.4				●		●			
		TNGG110304L-A	0.4				●		●			
		TNGG110308R-A	0.8				●		●			
		TNGG110308L-A	0.8				●		●			
		TNGG160304R-C	0.4						●		●	
		TNGG160304L-C	0.4						●			
		TNGG160308R-C	0.8						●			
		TNGG160308L-C	0.8						●			
		TNGG160400R-C	0.03						●			
		TNGG160400L-C	0.03						●			
		TNGG160402R-C	0.2				●		●		●	●
		TNGG160402L-C	0.2				●		●			
		TNGG160404R-C	0.4	●	●		●		●	●	●	●
		TNGG160404L-C	0.4	●	●		●		●		●	●
		TNGG160408R-C	0.8	●	●		●		●	●	●	●
		TNGG160408L-C	0.8	●	●		●		●		●	●

● : Line up

Reference pages

External toolholders → B206 -
Internal toolholders → B294 -
J series toolholders → B343 -
Cartridges → F152 -

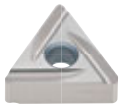
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9105	T9115	T9125	T9135	AH120	SH725	GT9530	NS9530	X407	TH10
P	Steel	●	●◐	◐✣	✣	●◐	●◐	●◐	●◐	●	●
M	Stainless					●◐	●◐				●
K	Cast iron	●◐	●◐			●◐		●◐	●◐		●
N	Non-ferrous										●
S	Superalloys					●◐					
H	Hard materials										

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	SH725	GT9530	NS9530	X407	TH10
				Coated						Coated cermet	Cermet		Uncoated
Precision finishing	D	TNGG220404R-D	0.4								●	●	
		TNGG220404L-D	0.4								●		
		TNGG220408R-D	0.8								●	●	
		TNGG220408L-D	0.8								●		
	W	TNGG160404R-W	0.4								●		●
		TNGG160404L-W	0.4								●		●
		TNGG160408R-W	0.8								●		
		TNGG160408L-W	0.8								●		
Precision finishing (Sharp edge)	W	TNGG160402FR-W	0.2						●				
		TNGG160402FL-W	0.2						●				
		TNGG160404FR-W	0.4						●				
		TNGG160404FL-W	0.4						●				
		TNGG160408FR-W	0.8						●				
		TNGG160408FL-W	0.8						●				
Finishing	TSF	TNMG110404E-TSF	0.4		●	●				●	●		
		TNMG110408E-TSF	0.8		●	●				●	●		
		TNMG160402-TSF	0.2					●		●	●		
		TNMG160404-TSF	0.4		●	●	●	●		●	●		
		TNMG160408-TSF	0.8	●	●	●	●	●		●	●		
		TNMG160412-TSF	1.2		●	●	●			●			
Finishing (Wiper)	FW	TNMG110404E-FW	0.4		●								
		TNMG110408E-FW	0.8		●								
		TNMG160404-FW	0.4		●								
		TNMG160408-FW	0.8		●								
Finishing	ZF	TNMG160404-ZF	0.4		●	●	●			●	●		
		TNMG160408-ZF	0.8		●	●	●			●	●		
		TNMG160412-ZF	1.2			●							

● : Line up

Reference pages

External toolholders → B201 -
Internal toolholders → B276 -
J series toolholders → B343 -
Cartridges → F152 -

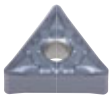
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9125	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GH330	NS9530	TH10
		Coated									Cermet	Uncoated
P	Steel	◐✠	◐	✠	◐✠					●◐	●◐	●
M	Stainless		●	◐	◐			●	◐	●◐		●
K	Cast iron					●	◐			●◐	●◐	●
N	Non-ferrous											●
S	Superalloys							●	◐			
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9125	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GH330	NS9530	TH10
Finishing	11	TNMG110304-11	0.4										●	
		TNMG110308-11	0.8										●	
		TNMG160402-11	0.2										●	
		TNMG160404-11	0.4									●	●	●
		TNMG160408-11	0.8										●	
		TNMG220404-11	0.4										●	
		TNMG220408-11	0.8										●	
Finishing of mild steels	17	TNMG160404-17	0.4	●								●	●	
		TNMG160408-17	0.8	●									●	
Finishing	SF	TNMG160404-SF	0.4		●	●	●							
		TNMG160408-SF	0.8		●	●	●							
		TNMG160412-SF	1.2		●	●	●							
	CF	TNMG160404-CF	0.4					●	●					
		TNMG160408-CF	0.8					●	●					
	HRF 	TNMG160404-HRF	0.4							●	●			
		TNMG160408-HRF	0.8							●	●			

● : Line up

Reference pages

External toolholders → B206 -
J series toolholders → B343 -
Internal toolholders → B294 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9105	T9115	T9125	T9135	GT9530	NS9530	NS520
P	Steel	●	●ⓒ	ⓒ✠	✠	●ⓒ	●ⓒ	●ⓒ
M	Stainless							
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous							
S	Superalloys							
H	Hard materials							

Application	Chipbreaker	Designation	Corner radius	T9105 (Coated)	T9115 (Coated)	T9125 (Coated)	T9135 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	NS520 (Cermet)
Finishing	TS	TNMG160404-TS	0.4		●	●	●	●	●	●
		TNMG160408-TS	0.8	●	●	●	●	●	●	●
		TNMG160412-TS	1.2	●	●	●	●			
Finishing to medium cutting (Wiper)	SW	TNMG110408E-SW	0.8		●					
		TNMG110412E-SW	1.2		●					
		TNMG160408-SW	0.8		●					
		TNMG160412-SW	1.2		●					
High feed, small depth of cut	AS	TNMG160404-AS	0.4			●	●		●	
		TNMG160408-AS	0.8	●	●	●	●		●	
		TNMG160412-AS	1.2	●	●	●				
Boring (Double sided)	CB	TNMG110304-CB	0.4		●				●	
		TNMG110308-CB	0.8		●				●	
Finishing	NS	TNMG160404-NS	0.4		●	●			●	
		TNMG160408-NS	0.8	●	●	●			●	

● : Line up

Reference pages

External toolholders → B201 -
Internal toolholders → B276 -
J series toolholders → B343 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	AH725	GH330	GT9530	NS9530	KS20
		Coated											Coated cermet	Cermet	Uncoated
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠	●ⓒ	ⓒ	●ⓒ	●ⓒ	●ⓒ	
M	Stainless					●	ⓒ	ⓒ	✠	●ⓒ	ⓒ	●ⓒ			
K	Cast iron	●ⓒ	●ⓒ							●ⓒ	ⓒ	●ⓒ	●ⓒ	●ⓒ	ⓒ✠
N	Non-ferrous														ⓒ✠
S	Superalloys									●ⓒ	●				ⓒ✠
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	AH120	AH725	GH330	GT9530	NS9530	KS20
Finishing	SS	TNMG110404E-SS	0.4							●	●						
		TNMG110408E-SS	0.8							●	●						
		TNMG160404-SS	0.4					●	●	●	●			●			●
		TNMG160408-SS	0.8					●	●	●	●			●			●
		TNMG160412-SS	1.2					●	●	●	●			●			
		TNMG220404-SS	0.4					●	●	●	●			●			
		TNMG220408-SS	0.8					●	●	●	●			●			
		TNMG220412-SS	1.2					●	●	●	●						
Medium cutting	TM	TNMG110304-TM	0.4		●	●	●										
		TNMG110308-TM	0.8		●	●	●										
		TNMG110404E-TM	0.4		●	●											
		TNMG110408E-TM	0.8		●	●											
		TNMG110412E-TM	1.2		●	●											
		TNMG160404-TM	0.4		●	●	●					●	●				
		TNMG160408-TM	0.8	●	●	●	●					●	●				
		TNMG160412-TM	1.2	●	●	●	●										
		TNMG220404-TM	0.4		●	●						●					
		TNMG220408-TM	0.8	●	●	●	●					●					
		TNMG220412-TM	1.2		●	●	●					●					
		TNMG220416-TM	1.6		●	●											
Finishing to medium cutting	AM	TNMG160408-AM	0.8		●	●											
		TNMG160412-AM	1.2		●	●											
	NM	TNMG160408-NM	0.8			●											
		TNMG160412-NM	1.2		●	●											
	TQ	TNMG160404-TQ	0.4												●	●	
		TNMG160408-TQ	0.8												●	●	

● : Line up

Reference pages

External toolholders → B201 -
Internal toolholders → B276 -
J series toolholders → B343 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9105	T9115	T9125	T9135	AH630	T515	T5105	T5115	T5125	AH110	AH120			GT9530	GT720			NS9530	NS520			TH10			
		Coated													Coated cermet				Cermet				Uncoated			
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ✠					●	●ⓒ			●ⓒ	●ⓒ			●ⓒ	●ⓒ			●			
M	Stainless					ⓒ					●	●ⓒ											●			
K	Cast iron	●ⓒ	●ⓒ				●ⓒ	●	ⓒ	✠	●	●ⓒ			●ⓒ	●ⓒ			●ⓒ	●ⓒ			●			
N	Non-ferrous																						●			
S	Superalloys										●	●ⓒ														
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH630	T515	T5105	T5115	T5125	AH110	AH120			GT9530	GT720			NS9530	NS520			TH10			
Finishing to medium cutting	ZM	TNMG160404-ZM	0.4		●	●	●										●				●							
		TNMG160408-ZM	0.8		●	●	●										●				●							
		TNMG160412-ZM	1.2		●	●	●																					
		TNMG220412-ZM	1.2			●																						
Medium cutting	DM	TNMG160408-DM	0.8	●	●	●	●																					
		TNMG160412-DM	1.2		●	●																						
	All-round	TNMG110304	0.4		●	●				●	●	●									●				●			
		TNMG110308	0.8		●	●				●	●	●									●				●			
		TNMG160304	0.4																						●			
		TNMG160308	0.8																						●			
		TNMG160404	0.4	●	●	●	●		●	●	●	●	●	●							●	●			●			
		TNMG160408	0.8	●	●	●	●		●	●	●	●	●	●				●			●	●			●			
		TNMG160412	1.2	●	●	●	●		●	●	●	●	●	●											●			
		TNMG160416	1.6		●	●	●			●	●	●													●			
		TNMG160420	2.0		●	●	●																					
		TNMG220408	0.8	●	●	●	●			●	●	●													●			
		TNMG220412	1.2	●	●	●	●	●		●	●	●													●			
		TNMG220416	1.6		●	●		●		●	●	●													●			
		TNMG270608	0.8			●								●														
		TNMG270612	1.2			●								●														
		TNMG270616	1.6											●														
Finishing to medium cutting	27	TNMG160404-27	0.4		●	●																						
		TNMG160408-27	0.8		●	●															●							
		TNMG160412-27	1.2		●	●																						
		TNMG220404-27	0.4			●																						
		TNMG220408-27	0.8			●																						
		TNMG220412-27	1.2			●																						

● : Line up

Reference pages

External toolholders → B206 -
J series toolholders → B343 -
Internal toolholders → B294 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	GH330	GT720				NS9530				TH10			
		Coated														Coated cermet				Cermet				Uncoated			
P	Steel	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠					●ⓒ	ⓒ	●ⓒ	●ⓒ				●ⓒ				●			
M	Stainless				●	ⓒ	ⓒ	✠					●ⓒ	ⓒ	●ⓒ									●			
K	Cast iron	●ⓒ							●ⓒ	●	ⓒ	✠	●ⓒ	ⓒ	●ⓒ	●ⓒ				●ⓒ				●			
N	Non-ferrous																							●			
S	Superalloys												●ⓒ	●													
H	Hard materials																										

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	GH330	GT720				NS9530				TH10			
Medium cutting	28	TNMG160404-28	0.4												●														
		TNMG160408-28	0.8												●														
		TNMG220404-28	0.4												●														
		TNMG220408-28	0.8												●														
	33	TNMG160404-33	0.4																							●			
		TNMG160408-33	0.8																							●			
		TNMG160416-33	1.6		●																								
		TNMG220404-33	0.4		●													●											
		TNMG220412-33	1.2			●																							
		TNMG220416-33	1.6		●																								
	37	TNMG160404-37	0.4	●													●					●							
		TNMG160408-37	0.8	●													●					●							
	38	TNMG160404-38	0.4														●												
		TNMG160408-38	0.8														●												
	SM	TNMG110404E-SM	0.4				●	●	●																				
		TNMG110408E-SM	0.8				●	●	●																				
		TNMG160404-SM	0.4				●	●	●	●						●													
		TNMG160408-SM	0.8				●	●	●	●						●													
		TNMG160412-SM	1.2				●	●	●	●																			
		TNMG220408-SM	0.8				●	●	●	●																			
		TNMG220412-SM	1.2				●	●	●	●																			
	CM	TNMG160404-CM	0.4								●	●	●	●															
		TNMG160408-CM	0.8								●	●	●	●															
		TNMG160412-CM	1.2								●	●	●	●															
		TNMG220408-CM	0.8									●	●	●															
		TNMG220412-CM	1.2									●	●	●															

● : Line up

Reference pages

External toolholders → B201 -
Internal toolholders → B276 -
J series toolholders → B343 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T6120	T6130	AH630	AH645	AH120	AH8005	AH8015	AH905	GH110	GH330	SH725				NS9530				TH10	KS20						
		Coated														Cermet				Uncoated							
P	Steel	⊂	✠	⊂✠	✠	●⊂				●	●⊂	●⊂				●⊂				●							
M	Stainless	●	⊂	⊂	✠	●⊂	●	⊂		●	●⊂	●⊂								●							
K	Cast iron					●⊂				●	●⊂					●⊂				●	⊂✠						
N	Non-ferrous																			●	⊂✠						
S	Superalloys					●⊂	●	⊂	⊂	●											⊂✠						
H	Hard materials																										

Application	Chipbreaker	Designation	Corner radius	T6120	T6130	AH630	AH645	AH120	AH8005	AH8015	AH905	GH110	GH330	SH725	NS9530	TH10	KS20
Medium cutting	P	TNGG160402R-P	0.2									●	●		●	●	
		TNGG160402L-P	0.2									●	●		●	●	
		TNGG160404R-P	0.4									●	●		●	●	
		TNGG160404L-P	0.4									●	●		●	●	
		TNGG160408R-P	0.8									●	●		●	●	
		TNGG160408L-P	0.8									●	●		●	●	
Medium cutting (Sharp edge)	P	TNGG160402FR-P	0.2											●			
		TNGG160402FL-P	0.2											●			
		TNGG160404FR-P	0.4											●			
		TNGG160404FL-P	0.4											●			
		TNGG160408FR-P	0.8											●			
		TNGG160408FL-P	0.8											●			
Finishing to medium cutting	HRM	TNMG160404-HRM	0.4						●	●							
		TNMG160408-HRM	0.8						●	●							
		TNMG160412-HRM	1.2						●	●							
Medium cutting	HMM	TNMG160404-HMM	0.4								●						
		TNMG160408-HMM	0.8								●						
		TNMG160412-HMM	1.2								●						
	SA	TNMG160404-SA	0.4	●	●	●	●	●									
		TNMG160408-SA	0.8	●	●	●	●	●									●
		TNMG160412-SA	1.2	●	●	●	●	●									●
		TNMG220408-SA	0.8	●	●	●	●	●									●
		TNMG220412-SA	1.2	●	●	●	●										

● : Line up

Reference pages

External toolholders → B206 -
Internal toolholders → B294 -
J series toolholders → B343 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	GH330	NS9530
		Coated													Cermet
P	Steel	●◐	◐✠	✠	✠	◐✠	✠					●◐	◐	●◐	●◐
M	Stainless				◐	◐	✠					●◐	◐	●◐	
K	Cast iron	●◐						●◐	●	◐	✠	●◐	◐	●◐	●◐
N	Non-ferrous														
S	Superalloys											●◐	●		
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	GH330	NS9530
Medium cutting	S	TNMG160404R-S	0.4	●	●	●	●	●	●						●	●	●
		TNMG160404L-S	0.4		●	●	●	●	●							●	●
		TNMG160408R-S	0.8		●	●	●	●	●						●	●	●
		TNMG160408L-S	0.8		●	●	●	●	●							●	●
		TNMG220404R-S	0.4		●	●	●	●	●							●	●
		TNMG220404L-S	0.4		●	●	●	●	●							●	●
		TNMG220408R-S	0.8		●	●	●	●	●							●	●
		TNMG220408L-S	0.8		●	●	●	●	●							●	●
Medium to heavy cutting	TH	TNMG220408-TH	0.8	●	●	●								●			
		TNMG220412-TH	1.2	●	●	●											
	THS	TNMG220408-THS	0.8	●	●	●											
		TNMG220412-THS	1.2	●	●	●											
	CH	TNMG160404-CH	0.4							●	●	●	●				
		TNMG160408-CH	0.8							●	●	●	●				
		TNMG160412-CH	1.2							●	●	●	●				
		TNMG220408-CH	0.8								●	●	●				
		TNMG220412-CH	1.2								●	●	●				
		TNMG220416-CH	1.6								●	●	●				

● : Line up

Reference pages

External toolholders → B206 -
Internal toolholders → B294 -
J series toolholders → B343 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° with hole

		T515	T5105	T5115	T5125	GH110	GT720	NS520	TH03	TH10	FX105	LX21	LX11
		Coated					Coated cermet	Cermet	Uncoated		Ceramics		
P	Steel					●	●◐	●◐	●	●			
M	Stainless					●			●	●			
K	Cast iron	●◐	●	◐	✠	●	●◐	●◐	●	●	●◐	●	
N	Non-ferrous								●	●			
S	Superalloys					●							
H	Hard materials												●

Application	Chipbreaker	Designation	Corner radius	T515	T5105	T5115	T5125	GH110	GT720	NS520	TH03	TH10	FX105	LX21	LX11
Finishing to medium cutting	-	TNMA160404	0.4	●	●	●	●					●			
		TNMA160408	0.8	●	●	●	●		●	●		●	●		
		TNMA160412	1.2	●	●	●	●						●		
		TNMA160416	1.6		●	●	●								
		TNMA160420	2.0		●	●	●								
		TNMA220404	0.4		●	●	●								
		TNMA220408	0.8		●	●	●								
		TNMA220412	1.2		●	●	●								
		TNMA220416	1.6		●	●	●								
	-	TNGA110304	0.4									●			
		TNGA110308	0.8									●			
		TNGA160304	0.4									●			
		TNGA160308	0.8									●			
		TNGA160402	0.2												●
		TNGA160404	0.4					●		●	●	●		●	●
		TNGA160408	0.8					●		●	●	●	●	●	●
		TNGA160412	1.2							●		●	●	●	●
		TNGA160416	1.6									●	●		●
		TNGA220408	0.8									●			

● : Line up

Reference pages

External toolholders → B206 -
J series toolholders → B343 -
Internal toolholders → B294 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Triangular, 60° without hole

		Uncoated				Ceramics			
		TH10				FX105	LX21	LX11	
P	Steel	●							
M	Stainless	●							
K	Cast iron	●				●◐	●		
N	Non-ferrous	●							
S	Superalloys								
H	Hard materials							●	

Application	Chipbreaker	Designation	Corner radius	TH10	FX105	LX21	LX11
Finishing to medium cutting	-	**TNGN110308**	0.8	●			
		TNGN160404	0.4			●	●
		TNGN160408	0.8	●		●	●
		TNGN160412	1.2	●	●	●	●
		TNGN160416	1.6		●		●
		TNGN160420	2.0		●		
		TNGN160708	0.8				●
		TNGN160712	1.2				●

● : Line up

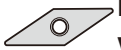
Reference pages

TNGN...: External toolholders → **B235 -, B241, B243,**
Internal toolholders → **B312**

TurnLine - Insert

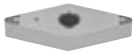
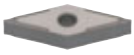
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE



Rhombic, 35° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH120	GH110	GH330	GT9530	GT720	NS9530	NS520	TH10
		Coated										Coated cermet		Cermet		Uncoated
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless					●	ⓒ	ⓒ	●ⓒ	●	●ⓒ					●
K	Cast iron	●ⓒ	●ⓒ						●ⓒ	●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
N	Non-ferrous															●
S	Superalloys								●ⓒ	●						
H	Hard materials															

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH120	GH110	GH330	GT9530	GT720	NS9530	NS520	TH10
Precision finishing	TF	VNMG160404-TF	0.4													●		
		VNMG160408-TF	0.8												●	●		
	01	VNGG160402-01	0.2									●				●	●	●
		VNGG160404-01	0.4													●	●	●
		VNGG160408-01	0.8													●	●	
																		
Finishing	TSF	VNMG120402E-TSF	0.2		●	●								●		●		
		VNMG120404E-TSF	0.4		●	●								●		●		
		VNMG120408E-TSF	0.8		●	●								●		●		
		VNMG160402-TSF	0.2								●			●		●		
		VNMG160404-TSF	0.4	●	●	●	●				●			●		●		
		VNMG160408-TSF	0.8	●	●	●	●				●			●		●		
		VNMG160412-TSF	1.2	●	●	●	●											
	ZF	VNMG160404-ZF	0.4		●	●	●							●		●		
		VNMG160408-ZF	0.8		●	●	●							●		●		
		VNMG160412-ZF	1.2		●	●	●											
	11	VNMG160404-11	0.4										●			●		●
		VNMG160408-11	0.8													●		
		VNMG160412-11	1.2											●				
																		
	SF	VNMG160404-SF	0.4					●	●	●								
		VNMG160408-SF	0.8					●	●	●								

● : Line up

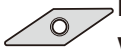
Reference pages

External toolholders → B202 - Internal toolholders → B277, B296, B299
TungCap → F009

TurnLine - Insert

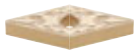
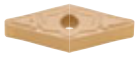
● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE



Rhombic, 35° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T5105	T5115	AH110	AH120	AH8005	AH8015	GH330			GT9530				NS9530	NS520		
		Coated																	Coated cermet				Cermet			
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠			●	●ⓒ			●ⓒ			●ⓒ				●ⓒ	●ⓒ		
M	Stainless					●	ⓒ	ⓒ	✠			●	●ⓒ	●	ⓒ	●ⓒ										
K	Cast iron	●ⓒ	●ⓒ							●	ⓒ	●	●ⓒ			●ⓒ			●ⓒ				●ⓒ	●ⓒ		
N	Non-ferrous																									
S	Superalloys											●	●ⓒ	●	ⓒ											
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T5105	T5115	AH110	AH120	AH8005	AH8015	GH330			GT9530				NS9530	NS520		
Finishing	CF	VNMG160404-CF	0.4									●	●															
		VNMG160408-CF	0.8									●	●															
																												
	HRF	VNMG160404-HRF	0.4													●	●											
		VNMG160408-HRF	0.8													●	●											
	TS	VNMG160404-TS	0.4		●	●	●														●				●	●		
		VNMG160408-TS	0.8		●	●	●														●				●	●		
		VNMG160412-TS	1.2		●	●	●																					
																												
	SS	VNMG120404E-SS	0.4					●	●	●	●																	
		VNMG120408E-SS	0.8					●	●	●	●																	
		VNMG160404-SS	0.4					●	●	●	●				●			●										
		VNMG160408-SS	0.8					●	●	●	●				●			●										
		VNMG160412-SS	1.2					●	●	●	●							●										
Medium cutting	TM	VNMG120404E-TM	0.4		●	●																						
		VNMG120408E-TM	0.8		●	●																						
		VNMG160404-TM	0.4	●	●	●	●		●						●													
		VNMG160408-TM	0.8	●	●	●	●							●	●													
		VNMG160412-TM	1.2	●	●	●	●							●														

● : Line up

Reference pages

External toolholders → B202 - Internal toolholders → B277, B296, B299
TungCap → F009

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 35° with hole

		T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120	GT9530	NS9530	TH10
		Coated										Coated cermet	Cermet	Uncoated
P	Steel	●	●ⓒ	ⓒ✠	✠					●	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless									●	●ⓒ			●
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	ⓒ	✠	●	●ⓒ	●ⓒ	●ⓒ	●
N	Non-ferrous													●
S	Superalloys									●	●ⓒ			
H	Hard materials													

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120	GT9530	NS9530	TH10
Finishing to medium cutting	**TQ**	**VNMG160404-TQ**	0.4											●	●	
		VNMG160408-TQ	0.8											●	●	
	ZM	**VNMG160408-ZM**	0.8		●	●	●									
		VNMG160412-ZM	1.2		●	●	●									
Medium cutting	**DM**	**VNMG160408-DM**	0.8	●	●	●	●									
		VNMG160412-DM	1.2		●	●	●									
	All-round	**VNMG160404**	0.4	●	●	●	●	●	●	●	●	●	●		●	●
		VNMG160408	0.8	●	●	●	●	●	●	●	●	●	●		●	●
		VNMG160412	1.2		●	●		●	●	●	●				●	
	28	**VNMG160404-28**	0.4										●			
		VNMG160408-28	0.8										●			
	33	**VNMG160404-33**	0.4			●						●				●
		VNMG160408-33	0.8		●	●										●

● : Line up

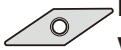
Reference pages

External toolholders → **B206 -** Internal toolholders → **B296, B299**
TungCap → **F009**

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE



Rhombic, 35° with hole

		T6120	T6130	AH630	AH645	T5105	T5115	T5125	AH8005	AH8015	AH905				NS520				TH10				LX11			
		Coated													Cermet				Uncoated				Ceramics			
P	Steel	ⓒ	✠	ⓒ✠	✠										●ⓒ				●							
M	Stainless	●	ⓒ	ⓒ	✠				●	ⓒ									●							
K	Cast iron					●	ⓒ	✠							●ⓒ				●							
N	Non-ferrous																		●							
S	Superalloys								●	ⓒ	ⓒ															
H	Hard materials																						●			

Application	Chipbreaker	Designation	Corner radius	T6120	T6130	AH630	AH645	T5105	T5115	T5125	AH8005	AH8015	AH905	NS520	TH10	LX11
Medium cutting	SM	VNMG120404E-SM	0.4	●	●	●	●									
		VNMG120408E-SM	0.8	●	●	●	●									
		VNMG160404-SM	0.4	●	●	●	●									
		VNMG160408-SM	0.8	●	●	●	●									
		VNMG160412-SM	1.2	●	●	●	●									
	CM	VNMG160408-CM	0.8					●	●	●						
		VNMG160412-CM	1.2					●	●	●						
Finishing to medium cutting	HRM	VNMG160404-HRM	0.4								●	●				
		VNMG160408-HRM	0.8								●	●				
		VNMG160412-HRM	1.2								●	●				
Medium cutting	HMM	VNMG160404-HMM	0.4										●			
		VNMG160408-HMM	0.8										●			
		VNMG160412-HMM	1.2										●			
Finishing to medium cutting	-	VNMA160402	0.2												●	
		VNMA160404	0.4					●	●	●				●	●	
		VNMA160408	0.8					●	●	●				●	●	
		VNGA160404	0.4													●
		VNGA160408	0.8													●

Rhombic, 35° without hole

		FX105
		Ceramics
P	Steel	
M	Stainless	
K	Cast iron	●ⓒ
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

Application	Chipbreaker	Designation	Corner radius	FX105
Finishing to medium cutting	-	VNGD160712	1.2	●

● : Line up

Reference pages

External toolholders → **B202 -** Internal toolholders → **B277, B296, B299** TungCap → **F009**

VNGD...: External toolholders → **B255**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9105	T9115	T9125	T9135	AH120	GT9530	GT720	NS9530	NS520
P	Steel	●	●◐	◐✣	✣	●◐	●◐	●◐	●◐	●◐
M	Stainless					●◐				
K	Cast iron	●◐	●◐			●◐	●◐	●◐	●◐	●◐
N	Non-ferrous									
S	Superalloys					●◐				
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	GT9530	GT720	NS9530	NS520
				Coated					Coated cermet		Cermet	
Precision finishing	TF	WNMG080404-TF	0.4								●	
		WNMG080408-TF	0.8								●	
	01	WNGG080402-01	0.2								●	●
		WNGG080404-01	0.4							●	●	●
		WNGG080408-01	0.8							●	●	
Finishing	TSF	WNMG060404E-TSF	0.4		●	●			●		●	
		WNMG060408E-TSF	0.8		●	●			●		●	
		WNMG060412E-TSF	1.2		●	●			●		●	
		WNMG060404-TSF	0.4		●	●						
		WNMG060408-TSF	0.8		●	●						
		WNMG080404-TSF	0.4		●	●	●	●	●		●	
		WNMG080408-TSF	0.8		●	●	●	●	●		●	
		WNMG080412-TSF	1.2	●	●	●	●	●				
Finishing (Wiper)	FW	WNMG060404E-FW	0.4	●	●	●			●		●	
		WNMG060408E-FW	0.8	●	●	●			●		●	
		WNMG080404-FW	0.4		●	●			●		●	
		WNMG080408-FW	0.8	●	●	●			●		●	
	AFW	WNMG060404-AFW	0.4		●	●					●	
		WNMG060408-AFW	0.8	●	●	●	●				●	
		WNMG080404-AFW	0.4		●	●					●	
		WNMG080408-AFW	0.8	●	●	●	●				●	
Finishing	ZF	WNMG060404E-ZF	0.4		●	●						
		WNMG060404-ZF	0.4		●	●						
		WNMG060408-ZF	0.8		●	●						
		WNMG080404-ZF	0.4		●	●	●		●		●	
		WNMG080408-ZF	0.8		●	●	●		●		●	
		WNMG080412-ZF	1.2		●							

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

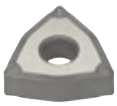
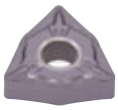
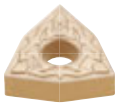
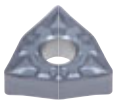
TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9115	T9125	T9135	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GT9530	NS9530	NS520
		Coated										Coated cermet	Cermet	
P	Steel	●⊂	⊂✠	✠	⊂	✠	⊂✠					●⊂	●⊂	●⊂
M	Stainless				●	⊂	⊂			●	⊂			
K	Cast iron	●⊂						●	⊂			●⊂	●⊂	●⊂
N	Non-ferrous													
S	Superalloys									●	⊂			
H	Hard materials													

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T9135	T6120	T6130	AH630	T5105	T5115	AH8005	AH8015	GT9530	NS9530	NS520
Finishing	11 	WNMG080404-11	0.4												●	
		WNMG080408-11	0.8												●	
Finishing of mild steels	17	WNMG080404-17	0.4												●	
		WNMG080408-17	0.8												●	
Finishing	SF 	WNMG060404-SF	0.4				●	●	●							
		WNMG060408-SF	0.8				●	●	●							
		WNMG080404-SF	0.4				●	●	●							
		WNMG080408-SF	0.8				●	●	●							
	CF 	WNMG080404-CF	0.4							●	●					
		WNMG080408-CF	0.8							●	●					
		WNMG080412-CF	1.2							●	●					
	HRF 	WNMG080404-HRF	0.4									●	●			
		WNMG080408-HRF	0.8									●	●			
	TS	WNMG080404-TS	0.4	●	●	●								●	●	●
		WNMG080408-TS	0.8	●	●	●								●	●	●
		WNMG080412-TS	1.2	●	●	●										

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	T5115	GH330	NS9530
		Coated											Cermet
P	Steel	●	●ⓒ	ⓒ✠	✠	ⓒ	✠	ⓒ✠	✠			●ⓒ	●ⓒ
M	Stainless					●	ⓒ	ⓒ	✠			●ⓒ	
K	Cast iron	●ⓒ	●ⓒ							●ⓒ	ⓒ	●ⓒ	●ⓒ
N	Non-ferrous												
S	Superalloys												
H	Hard materials												

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6120	T6130	AH630	AH645	T515	T5115	GH330	NS9530
Finishing to medium cutting (Wiper)	SW	WNMG060408E-SW	0.8	●	●	●							●		
		WNMG060412E-SW	1.2	●	●	●							●		
		WNMG080408-SW	0.8	●	●	●						●	●		
		WNMG080412-SW	1.2		●	●						●	●		
	ASW	WNMG060408-ASW	0.8	●	●	●									
		WNMG060412-ASW	1.2	●	●	●	●								
		WNMG080408-ASW	0.8	●	●	●	●								
		WNMG080412-ASW	1.2	●	●	●	●								
High feed, small depth of cut	AS	WNMG080404-AS	0.4	●											●
		WNMG080408-AS	0.8	●	●	●	●								●
		WNMG080412-AS	1.2	●	●	●	●								
Boring (Double sided)	CB	WNMG060404-CB	0.4			●									●
		WNMG060408-CB	0.8			●									●
Finishing	NS	WNMG080404-NS	0.4		●	●									●
		WNMG080408-NS	0.8		●	●									●
	SS	WNMG060404E-SS	0.4							●	●				
		WNMG060408E-SS	0.8							●	●				
		WNMG060412E-SS	1.2							●	●				
		WNMG080404-SS	0.4					●	●	●	●			●	
		WNMG080408-SS	0.8					●	●	●	●			●	
		WNMG080412-SS	1.2					●	●	●	●				

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9105	T9115	T9125	T9135	AH120	AH725	GT9530	NS9530
		Coated						Coated cermet	Cermet
P	Steel	●	●ⓒ	ⓒ✠	✠	●ⓒ	ⓒ	●ⓒ	●ⓒ
M	Stainless					●ⓒ	ⓒ		
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	ⓒ	●ⓒ	●ⓒ
N	Non-ferrous								
S	Superalloys					●ⓒ	●		
H	Hard materials								

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	AH120	AH725	GT9530	NS9530
Medium cutting	TM	WNMG060404E-TM	0.4		●	●					
		WNMG060408E-TM	0.8		●	●					
		WNMG060412E-TM	1.2		●	●					
		WNMG060404-TM	0.4		●	●	●				
		WNMG060408-TM	0.8	●	●	●	●	●			
		WNMG080404-TM	0.4	●	●	●	●	●	●		
		WNMG080408-TM	0.8	●	●	●	●	●	●		
		WNMG080412-TM	1.2	●	●	●	●	●			
		WNMG080416-TM	1.6	●	●	●		●			
Finishing to medium cutting	AM	WNMG080408-AM	0.8		●	●					
		WNMG080412-AM	1.2		●	●					
		WNMG080416-AM	1.6		●	●					
	NM	WNMG060412E-NM	1.2			●					
		WNMG080408-NM	0.8	●	●	●					
		WNMG080412-NM	1.2	●	●	●	●				
	TQ	WNMG080404-TQ	0.4							●	●
		WNMG080408-TQ	0.8							●	●
	ZM	WNMG060408E-ZM	0.8		●	●					
		WNMG060408-ZM	0.8		●	●	●				
		WNMG060412-ZM	1.2		●	●	●				
		WNMG080408-ZM	0.8		●	●	●			●	●
		WNMG080412-ZM	1.2		●	●	●				
		WNMG080416-ZM	1.6		●	●					

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120	GH330			GT720				NS9530	NS520			TH10			
		Coated													Coated cermet				Cermet				Uncoated			
P	Steel	●	●ⓒ	ⓒ✠	✠					●	●ⓒ	●ⓒ			●ⓒ				●ⓒ	●ⓒ			●			
M	Stainless									●	●ⓒ	●ⓒ											●			
K	Cast iron	●ⓒ	●ⓒ			●ⓒ	●	ⓒ	✠	●	●ⓒ	●ⓒ			●ⓒ				●ⓒ	●ⓒ			●			
N	Non-ferrous																						●			
S	Superalloys									●	●ⓒ															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T515	T5105	T5115	T5125	AH110	AH120	GH330			GT720				NS9530	NS520			TH10			
Medium cutting	**DM**	**WNMG080408-DM**	0.8	●	●	●	●																					
		WNMG080412-DM	1.2	●	●	●	●																					
	All-round	**WNMG060404**	0.4		●	●			●	●	●																	
		WNMG060408	0.8		●	●			●	●	●																	
		WNMG080404	0.4	●	●	●	●	●	●	●	●	●	●								●				●			
		WNMG080408	0.8	●	●	●	●	●	●	●	●	●	●								●	●			●			
		WNMG080412	1.2	●	●	●	●	●	●	●	●	●	●												●			
		WNMG080416	1.6	●	●	●	●	●	●	●	●																	
Finishing to medium cutting	**27**	**WNMG080408-27**	0.8			●																						
Medium cutting	**33**	**WNMG080404-33**	0.4														●											
		WNMG080408-33	0.8	●																					●			
	37	**WNMG080404-37**	0.4																		●							
		WNMG080408-37	0.8		●									●							●							

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	AH8005	AH8015	AH905	KS20
		Coated													Uncoated
P	Steel	⊂	✠	⊂✠	✠					●⊂	⊂				
M	Stainless	●	⊂	⊂	✠					●⊂	⊂	●	⊂		
K	Cast iron					●⊂	●	⊂	✠	●⊂	⊂				●✠
N	Non-ferrous														●✠
S	Superalloys									●⊂	●	●	⊂	⊂	●✠
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	T6120	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	AH725	AH8005	AH8015	AH905	KS20
Medium cutting	SM	WNMG060404E-SM	0.4	●	●	●											
		WNMG060408E-SM	0.8	●	●	●											
		WNMG060412E-SM	1.2	●	●	●											
		WNMG060408-SM	0.8										●				
		WNMG080404-SM	0.4	●	●	●	●										
		WNMG080408-SM	0.8	●	●	●	●						●				
		WNMG080412-SM	1.2	●	●	●	●						●				
	CM	WNMG080404-CM	0.4							●							
		WNMG080408-CM	0.8					●	●	●	●						
		WNMG080412-CM	1.2					●	●	●	●						
Finishing to medium cutting	HRM	WNMG080404-HRM	0.4											●	●		
		WNMG080408-HRM	0.8											●	●		
		WNMG080412-HRM	1.2											●	●		
Medium cutting	HMM	WNMG080404-HMM	0.4													●	
		WNMG080408-HMM	0.8													●	
		WNMG080412-HMM	1.2													●	
	SA	WNMG080408-SA	0.8	●	●	●	●					●	●				●
		WNMG080412-SA	1.2	●	●	●	●					●					

● : Line up

Reference pages

External toolholders → B198 - Internal toolholders → B275 -
TungCap → B215, F009 -

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Trigon, 80° with hole

		T9105	T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	NS520	TH10	LX11
		Coated												Cermet	Uncoated	Ceramics
P	Steel	●	●ⓒ	ⓒ✠	✠	✠	ⓒ✠	✠					●ⓒ	●ⓒ	●	
M	Stainless					ⓒ	ⓒ	✠					●ⓒ		●	
K	Cast iron	●ⓒ	●ⓒ						●ⓒ	●	ⓒ	✠	●ⓒ	●ⓒ	●	
N	Non-ferrous														●	
S	Superalloys												●ⓒ			
H	Hard materials															●

Application	Chipbreaker	Designation	Corner radius	T9105	T9115	T9125	T9135	T6130	AH630	AH645	T515	T5105	T5115	T5125	AH120	NS520	TH10	LX11
Medium to heavy cutting	TH	WNMG080408-TH	0.8	●	●	●	●	●							●			
		WNMG080412-TH	1.2	●	●	●	●								●			
		WNMG080416-TH	1.6	●	●	●												
		WNMG100612-TH	1.2		●	●												
		WNMG100616-TH	1.6		●	●												
	THS	WNMG080408-THS	0.8	●	●	●	●											
		WNMG080412-THS	1.2	●	●	●	●											
		WNMG080416-THS	1.6		●	●												
		WNMG100612-THS	1.2		●	●	●											
		WNMG100616-THS	1.6		●	●	●											
	SH	WNMG080408-SH	0.8					●	●	●								
		WNMG080412-SH	1.2					●	●	●								
	CH	WNMG080408-CH	0.8									●	●	●				
		WNMG080412-CH	1.2									●	●	●				
Finishing to medium cutting	-	WNMA080404	0.4									●	●	●			●	
		WNMA080408	0.8								●	●	●	●		●	●	
		WNMA080412	1.2								●	●	●	●				
		WNMA080416	1.6								●	●	●	●				
		WNGA080404	0.4															●
		WNGA080408	0.8															●
		WNGA080412	1.2															●

● : Line up

Reference pages

External toolholders → B205 - Internal toolholders → B293 -
TungCap → B215, F009 -

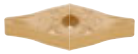
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

NEGATIVE TYPE

Rhombic, 25° with hole

P	Steel	◐✣	✣				●◐				●◐																								
M	Stainless																																		
K	Cast iron						●◐				●◐																								
N	Non-ferrous																																		
S	Superalloys																																		
H	Hard materials																																		

Application	Chipbreaker	Designation	Corner radius	Coated					Coated cermet				Cermet																						
				T9125	T9135				GT9530				NS9530																						
Finishing	ZF	YNMG160404-ZF	0.4	●	●				●				●																						
		YNMG160408-ZF	0.8	●	●				●				●																						
Finishing to medium cutting	ZM	YNMG160404-ZM	0.4	●	●				●				●																						
		YNMG160408-ZM	0.8	●	●				●				●																						
																																			

● : Line up

Reference pages

External toolholders → **B206 -, B213 -** Internal toolholders → **B296, B299**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

NEGATIVE TYPE

Parallelogram, 55° without hole

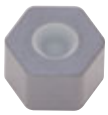
P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Coated GH330
Finishing	S1	KNMX160405R-S1	0.5	●
		KNMX160405L-S1	0.5	●

Hexagon, 120° without hole

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Ceramics FX105
Finishing to medium cutting	-	HNGD050712	1.2	●
		HNGD050716	1.6	●



● : Line up

Reference pages

KNMX... : External toolholders → B241

HNGD... : External toolholders → B256

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		T9115	T9125	T6130	AH725	AH8005	AH8015	GH730	SH725	J740	GT9530	NS9530
P	Steel	●ⓒ	ⓒ✠	✠	ⓒ			ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ
M	Stainless			ⓒ	ⓒ	●	ⓒ	ⓒ	●ⓒ	●ⓒ		
K	Cast iron	●ⓒ			ⓒ			ⓒ			●ⓒ	●ⓒ
N	Non-ferrous											
S	Superalloys				●	●	ⓒ					
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6130	AH725	AH8005	AH8015	GH730	SH725	J740	GT9530	NS9530
				Coated									Coated cermet	Cermet
Precision finishing	01	CCGT060202-01	0.2									●		
		CCGT09T302-01	0.2									●		
Precision finishing (Sharp edge)	01	CCGT060202F-01	0.2								●			
		CCGT060204F-01	0.4								●			
		CCGT09T302F-01	0.2								●			
Finishing	PSF	CCMT060202-PSF	0.2				●						●	●
		CCMT060204-PSF	0.4	●	●		●	●	●				●	●
		CCMT09T302-PSF	0.2				●							●
		CCMT09T304-PSF	0.4	●	●		●	●	●				●	●
		CCMT09T308-PSF	0.8	●	●		●						●	●
	PF	CCMT060202-PF	0.2							●			●	●
		CCMT060204-PF	0.4			●				●			●	●
		CCMT060208-PF	0.8										●	●
		CCMT09T302-PF	0.2							●				●
		CCMT09T304-PF	0.4							●			●	●
		CCMT09T308-PF	0.8		●								●	●

● : Line up

Reference pages

External toolholders → B246
Internal toolholders → B278, B301
J series toolholders → B328 - B331
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	GH730				GT9530				NS9530							
		Coated														Coated cermet				Cermet							
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠	●⊂	⊂			⊂				●⊂				●⊂							
M	Stainless			●	⊂	⊂	✠	●⊂	⊂	●	⊂	⊂															
K	Cast iron	●⊂						●⊂	⊂			⊂				●⊂				●⊂							
N	Non-ferrous																										
S	Superalloys							●⊂	●	●	⊂																
H	Hard materials																										

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	GH730	GT9530	NS9530
Finishing to light cutting	**PSS**	**CCMT060204-PSS**	0.4	●	●	●	●	●	●		●	●	●		●	●
		CCMT060208-PSS	0.8	●	●	●	●	●	●		●	●	●		●	●
		CCMT09T304-PSS	0.4	●	●	●	●	●	●		●	●	●		●	●
		CCMT09T308-PSS	0.8	●	●	●	●	●	●		●	●	●		●	●
		CCMT120404-PSS	0.4	●	●	●	●	●	●		●					
		CCMT120408-PSS	0.8	●	●	●	●	●	●		●					
		CCMT120412-PSS	1.2	●	●	●	●	●	●		●					
Finishing to medium cutting	**PS**	**CCMT060202-PS**	0.2	●	●	●	●	●	●	●	●			●	●	●
		CCMT060204-PS	0.4	●	●	●	●	●	●	●	●	●	●	●	●	●
		CCMT060208-PS	0.8	●	●	●	●	●	●	●	●	●	●	●	●	●
		CCMT09T302-PS	0.2	●	●	●	●	●	●	●	●			●	●	●
		CCMT09T304-PS	0.4	●	●	●	●	●	●	●	●	●	●	●	●	●
		CCMT09T308-PS	0.8	●	●	●	●	●	●	●	●	●	●	●	●	●
		CCMT120404-PS	0.4	●	●	●	●	●	●		●	●	●			
		CCMT120408-PS	0.8	●	●	●	●	●	●		●	●	●			
		CCMT120412-PS	1.2	●	●	●	●	●	●		●					
	23	**CCMT060202-23**	0.2													●
		CCMT060204-23	0.4		●											●
		CCMT060208-23	0.8		●											
		CCMT09T304-23	0.4		●											●
		CCMT09T308-23	0.8		●											●
Medium cutting	**24**	**CCMT060202-24**	0.2		●											●
		CCMT060204-24	0.4	●	●					●						●
		CCMT060208-24	0.8	●	●		●									●
		CCMT09T302-24	0.2		●											●
		CCMT09T304-24	0.4	●	●											●
		CCMT09T308-24	0.8	●	●		●									●
		CCMT120408-24	0.8	●	●					●						●

● : Line up

Reference pages

External toolholders → **B246**
Internal toolholders → **B278, B301**
J series toolholders → **B328 - B331**
PINZBOHR® → **F136 - F151**

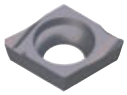
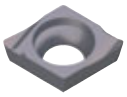
TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		SH725	SH730	TH10
P	Steel	●ⓒ	●ⓒ	●
M	Stainless	●ⓒ	●ⓒ	●
K	Cast iron			●
N	Non-ferrous			●
S	Superalloys		●ⓒ	
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	SH725 (Coated)	SH730 (Coated)	TH10 (Uncoated)
Finishing	W08	CCGT03X100R-W08	0.03		●	●
		CCGT03X100L-W08	0.03		●	●
		CCGT03X101R-W08	0.1		●	●
		CCGT03X101L-W08	0.1		●	●
		CCGT03X102R-W08	0.2		●	●
		CCGT03X102L-W08	0.2		●	●
		CCGT03X104R-W08	0.4		●	●
		CCGT03X104L-W08	0.4		●	●
		CCGT04T100R-W08	0.03		●	●
		CCGT04T100L-W08	0.03		●	●
		CCGT04T101R-W08	0.1		●	●
		CCGT04T101L-W08	0.1		●	●
		CCGT04T102R-W08	0.2		●	●
		CCGT04T102L-W08	0.2		●	●
		CCGT04T104R-W08	0.4		●	●
		CCGT04T104L-W08	0.4		●	●
Finishing (Sharp edge)	W08	CCGT03X100FL-W08	0.03	●		
		CCGT03X100FR-W08	0.03	●		
		CCGT03X101FL-W08	0.1	●		
		CCGT03X101FR-W08	0.1	●		
		CCGT03X102FL-W08	0.2	●		
		CCGT03X102FR-W08	0.2	●		
		CCGT03X104FL-W08	0.4	●		
		CCGT03X104FR-W08	0.4	●		
		CCGT04T100FL-W08	0.03	●		
		CCGT04T100FR-W08	0.03	●		
		CCGT04T101FL-W08	0.1	●		
		CCGT04T101FR-W08	0.1	●		
		CCGT04T102FL-W08	0.2	●		
		CCGT04T102FR-W08	0.2	●		
		CCGT04T104FL-W08	0.4	●		
		CCGT04T104FR-W08	0.4	●		

● : Line up

Reference pages

Internal toolholders → B278
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH110	GH330	GH730	GT9530	NS9530	TH10	UX30
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠			●⊂	⊂	●	●⊂	⊂	●⊂	●⊂	●	⊂
M	Stainless			●	⊂	⊂	✠			●⊂	⊂	●	●⊂	⊂			●	⊂
K	Cast iron	●⊂						●⊂	⊂	●⊂	⊂	●	●⊂	⊂	●⊂	●⊂	●	
N	Non-ferrous																●	
S	Superalloys									●⊂	●	●						
H	Hard materials																	

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH110	GH330	GH730	GT9530	NS9530	TH10	UX30
				Coated													Coated cermet	Cermet	Uncoated	
Finishing	W15	CCGT060200R-W15	0.03																●	
		CCGT060200L-W15	0.03															●	●	
		CCGT060202R-W15	0.2															●	●	
		CCGT060202L-W15	0.2														●	●	●	
		CCGT060204R-W15	0.4											●				●	●	
		CCGT060204L-W15	0.4											●	●		●	●	●	●
	W20	CCGT09T302R-W20	0.2															●	●	
		CCGT09T302L-W20	0.2														●	●	●	
		CCGT09T304R-W20	0.4															●		
		CCGT09T304L-W20	0.4											●	●		●	●	●	
		CCGT09T308R-W20	0.8															●		
		CCGT09T308L-W20	0.8														●	●		
Medium cutting	PM	CCMT060204-PM	0.4	●	●	●	●	●	●			●	●			●	●	●		
		CCMT060208-PM	0.8	●	●	●	●	●	●			●	●			●	●	●		
		CCMT09T304-PM	0.4	●	●	●	●	●	●			●	●			●	●	●		
		CCMT09T308-PM	0.8	●	●	●	●	●	●			●	●			●	●	●		
		CCMT09T312-PM	1.2	●	●	●	●	●	●				●							
		CCMT120408-PM	0.8			●	●	●	●				●							
		CCMT120412-PM	1.2			●	●	●	●				●							
Finishing to medium cutting	CM	CCMT060204-CM	0.4							●	●									
		CCMT060208-CM	0.8							●	●									
		CCMT09T304-CM	0.4							●	●									
		CCMT09T308-CM	0.8							●	●									
		CCMT09T312-CM	1.2								●									
		CCMT120404-CM	0.4								●									
		CCMT120408-CM	0.8								●									

● : Line up

Reference pages

External toolholders → B246
Internal toolholders → B278, B301
J series toolholders → B328 - B331
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		T5115	GH110	NS9530	TH10	KS05F
P	Steel		●	●◐	●	
M	Stainless		●		●	
K	Cast iron	◐	●	●◐	●	●
N	Non-ferrous				●	●
S	Superalloys		●			●
H	Hard materials					
		Coated		Cermet	Uncoated	

Application	Chipbreaker	Designation	Corner radius	T5115	GH110	NS9530	TH10	KS05F
Finishing to medium cutting	**AL**	**CCGT060202-AL**	0.2					●
		CCGT060204-AL	0.4					●
		CCGT09T302-AL	0.2					●
		CCGT09T304-AL	0.4					●
		CCGT09T308-AL	0.8					●
		CCGT120402-AL	0.2					●
		CCGT120404-AL	0.4					●
		CCGT120408-AL	0.8					●
	All-round	**CCGT060202**	0.2			●		
		CCGT060204	0.4			●		
		CCGT09T302	0.2			●		
		CCGT09T304	0.4			●		
		CCGT09T308	0.8			●		
	Angular	**CCGT060200R**	0.03				●	
		CCGT060202R	0.2				●	
		CCGT060202L	0.2				●	
		CCGT060204L	0.4				●	
		CCGT09T302R	0.2				●	
		CCGT09T302L	0.2				●	
		CCGT09T304R	0.4				●	
		CCGT09T304L	0.4				●	
	-	**CCMW060204**	0.4	●				
		CCMW060208	0.8	●				
		CCMW09T304	0.4	●				
		CCMW09T308	0.8	●				
	-	**CCGW060202**	0.2				●	
		CCGW060204	0.4				●	
		CCGW09T304	0.4		●		●	

● : Line up

Reference pages

External toolholders → **B246**
Internal toolholders → **B278, B301**
J series toolholders → **B328 - B331**
PINZBOHR® → **F136 - F151**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		AH725	SH725	SH730
P	Steel	◐	●◐	●◐
M	Stainless	◐	●◐	●◐
K	Cast iron	◐		
N	Non-ferrous			
S	Superalloys	●		●◐
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	AH725	SH725	SH730
For internal turning on small lathes	JS	CCGT03X101-JS	0.1			●
		CCGT03X102-JS	0.2			●
		CCGT03X104-JS	0.4			●
		CCGT04T101-JS	0.1			●
		CCGT04T102-JS	0.2			●
		CCGT04T104-JS	0.4			●
For internal turning on small lathes (Sharp edge)	JS	CCGT03X101F-JS	0.1		●	
		CCGT03X102F-JS	0.2		●	
		CCGT03X104F-JS	0.4		●	
		CCGT04T101F-JS	0.1		●	
		CCGT04T102F-JS	0.2		●	
		CCGT04T104F-JS	0.4		●	
For external turning on small lathes	JS	CCGT060201N-JS	0.1	●		
		CCGT060202N-JS	0.2	●		
		CCGT060204N-JS	0.4	●		
		CCGT09T301N-JS	0.1	●		
		CCGT09T302N-JS	0.2	●		
		CCGT09T304N-JS	0.4	●		
For external turning on small lathes (Sharp edge)	JS	CCGT060200FN-JS	0.03		●	●
		CCGT060201FN-JS	0.1		●	●
		CCGT060202FN-JS	0.2		●	●
		CCGT060204FN-JS	0.4		●	●
		CCGT09T300FN-JS	0.03		●	●
		CCGT09T301FN-JS	0.1		●	●
		CCGT09T302FN-JS	0.2		●	●
		CCGT09T304FN-JS	0.4		●	●

● : Line up

Reference pages

External toolholders → B246
Internal toolholders → B278, B301
J series toolholders → B328 - B331
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 7°

		SH725	J740	NS9530	TH10
P	Steel	●◐	●◐	●◐	●
M	Stainless	●◐	●◐		●
K	Cast iron			●◐	●
N	Non-ferrous				●
S	Superalloys				
H	Hard materials				

Application	Chipbreaker	Designation	Corner radius	SH725 (Coated)	J740 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)
For external turning on small lathes (Sharp edge)	J10	CCGT060200FR-J10	0.03	●	●		●
		CCGT060200FL-J10	0.03	●	●		●
		CCGT060201FR-J10	0.1	●	●	●	●
		CCGT060201FL-J10	0.1	●	●		●
		CCGT060202FR-J10	0.2	●	●	●	●
		CCGT060202FL-J10	0.2	●	●	●	●
		CCGT09T300FR-J10	0.03	●	●		●
		CCGT09T300FL-J10	0.03	●	●		●
		CCGT09T301FR-J10	0.1	●	●		●
		CCGT09T301FL-J10	0.1	●	●		●
		CCGT09T302FR-J10	0.2	●	●		●
		CCGT09T302FL-J10	0.2	●	●		●
		CCGT09T304FR-J10	0.4	●			

● : Line up

Reference pages

External toolholders → B246
Internal toolholders → B278, B301
J series toolholders → B328 - B331
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 11°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GH730	GT9530	NS9530
P	Steel	●◐	◐✠	◐	✠	◐✠	✠	●◐	◐	◐	●◐	●◐
M	Stainless			●	◐	◐	✠	●◐	◐	◐		
K	Cast iron	●◐						●◐	◐	◐	●◐	●◐
N	Non-ferrous											
S	Superalloys							●◐	●			
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GH730	GT9530	NS9530
				Coated									Coated cermet	Cermet
Finishing	PSF	CPMT060202-PSF	0.2								●			
		CPMT060204-PSF	0.4	●	●						●			
		CPMT080202-PSF	0.2								●			
		CPMT080204-PSF	0.4	●	●						●			
		CPMT090302-PSF	0.2								●		●	●
		CPMT090304-PSF	0.4	●	●						●		●	●
		CPMT09T302-PSF	0.2								●			
		CPMT09T304-PSF	0.4	●	●						●			
	PF	CPMT090302-PF	0.2										●	●
		CPMT090304-PF	0.4										●	●
Finishing to light cutting	PSS	CPMT060204-PSS	0.4	●	●						●		●	●
		CPMT080204-PSS	0.4	●	●	●	●	●	●		●		●	●
		CPMT080208-PSS	0.8	●	●	●	●	●	●		●		●	●
		CPMT090304-PSS	0.4	●	●	●	●	●	●		●		●	●
		CPMT090308-PSS	0.8	●	●	●	●	●	●		●		●	●
		CPMT09T304-PSS	0.4	●	●						●			
		CPMT09T308-PSS	0.8	●	●						●			
Finishing to medium cutting	PS	CPMT060202-PS	0.2	●	●						●	●		●
		CPMT060204-PS	0.4	●	●					●	●	●	●	●
		CPMT080202-PS	0.2	●	●	●	●	●	●		●		●	●
		CPMT080204-PS	0.4	●	●	●	●	●	●		●		●	●
		CPMT080208-PS	0.8	●	●	●	●	●	●		●		●	●
		CPMT090304-PS	0.4	●	●	●	●	●	●		●		●	●
		CPMT090308-PS	0.8	●	●	●	●	●	●		●		●	●
		CPMT09T302-PS	0.2	●	●						●			
		CPMT09T304-PS	0.4	●	●						●			●
		CPMT09T308-PS	0.8	●	●					●	●			

● : Line up

Reference pages

Internal toolholders → B280, B301

TurnLine - Insert

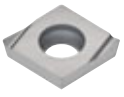
● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 11°

		T9125	NS9530	TH10
P	Steel	◐✣	●◐	●
M	Stainless			●
K	Cast iron		●◐	●
N	Non-ferrous			●
S	Superalloys			
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	T9125 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)
Medium cutting	24	CPMT120408-24	0.8		●	
		CPMT160508-24	0.8	●	●	
		CPMT160512-24	1.2		●	
Finishing	W15	CPGT050202L-W15	0.2		●	
		CPGT050204L-W15	0.4		●	
		CPGT080202R-W15	0.2			●
		CPGT080202L-W15	0.2		●	●
		CPGT080204R-W15	0.4			●
		CPGT080204L-W15	0.4		●	●
	W20	CPGT090302R-W20	0.2		●	●
		CPGT090302L-W20	0.2		●	●
		CPGT090304R-W20	0.4		●	●
		CPGT090304L-W20	0.4		●	●



● : Line up

Reference pages

Internal toolholders → B280, B301 Cartridges → F152 -
Boring bar tools → F169 - F172

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 80° with hole Positive 11°

		T9105	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH725	AH8005	AH8015	AH905	NS9530
		Coated												Cermet
P	Steel	●	⊂	✠	⊂✠	✠				⊂				●⊂
M	Stainless		●	⊂	⊂	✠				⊂	●	⊂		
K	Cast iron	●⊂					●⊂	●	⊂	⊂				●⊂
N	Non-ferrous													
S	Superalloys									●	●	⊂	⊂	
H	Hard materials													

Application	Chipbreaker	Designation	Corner radius	T9105	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH725	AH8005	AH8015	AH905	NS9530
Medium cutting	**PM**	**CPMT060204-PM**	0.4			●	●	●	●			●				
		CPMT060208-PM	0.8		●	●	●	●	●			●				
		CPMT090304-PM	0.4		●	●	●	●	●			●				●
		CPMT090308-PM	0.8		●	●	●	●	●			●				●
Finishing to medium cutting	**CM**	**CPMT060204-CM**	0.4								●					
		CPMT060208-CM	0.8								●					
		CPMT080204-CM	0.4								●					
		CPMT080208-CM	0.8								●					
		CPMT090304-CM	0.4							●	●					
		CPMT090308-CM	0.8							●	●					
		CPMT09T304-CM	0.4							●	●					
		CPMT09T308-CM	0.8							●	●					
		CPMT09T312-CM	1.2								●					
		CPMT120408-CM	0.8								●					
		CPMT120412-CM	1.2								●					
Medium cutting	**All-round**	**CPMT120408**	0.8										●	●	●	
	-	**CPMW080204**	0.4								●					
		CPMW080208	0.8								●					
		CPMW090304	0.4	●							●					
		CPMW090308	0.8								●					

● : Line up

Reference pages

Internal toolholders → B280, B301
Boring bar tools → F169 - F172

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		T9115	T9125	AH725	AH8005	AH8015	AH905	GH730	SH725	J740	GT9530	J9530	NS9530
		Coated									Coated cermet		Cermet
P	Steel	●ⓒ	ⓒ✠	ⓒ				ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ
M	Stainless			ⓒ	●	ⓒ		ⓒ	●ⓒ	●ⓒ			
K	Cast iron	●ⓒ		ⓒ				ⓒ			●ⓒ	●ⓒ	●ⓒ
N	Non-ferrous												
S	Superalloys			●	●	ⓒ	ⓒ						
H	Hard materials												

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	AH725	AH8005	AH8015	AH905	GH730	SH725	J740	GT9530	J9530	NS9530
Precision finishing	01	DCGT070202-01	0.2									●		●	
		DCGT11T302-01	0.2									●			
Precision finishing (Sharp edge)	01	DCGT070202F-01	0.2								●				
		DCGT11T302F-01	0.2								●				
Finishing	PSF	DCMT070202-PSF	0.2			●							●		●
		DCMT070204-PSF	0.4	●	●	●							●		●
		DCMT11T302-PSF	0.2			●							●		●
		DCMT11T304-PSF	0.4	●	●	●	●	●	●				●		●
		DCMT11T308-PSF	0.8	●	●	●	●	●	●						
	PF	DCMT070202-PF	0.2							●			●		●
		DCMT070204-PF	0.4							●			●		●
		DCMT070208-PF	0.8										●		●
		DCMT11T302-PF	0.2							●			●		●
		DCMT11T304-PF	0.4							●			●		●
		DCMT11T308-PF	0.8										●		

● : Line up

Reference pages

External toolholders → B218 -
J series toolholders → B331 - B335
Internal toolholders → B287 -
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	AH905	GH730	GT9530	NS9530
P	Steel	●◐	◐✠	◐	✠	◐✠	✠	●◐	◐				◐	●◐	●◐
M	Stainless			●	◐	◐	✠	●◐	◐	●	◐		◐		
K	Cast iron	●◐						●◐	◐				◐	●◐	●◐
N	Non-ferrous														
S	Superalloys							●◐	●	●	◐	◐			
H	Hard materials														

Application	Chipbreaker	Designation	Corner radius	Coated												Coated cermet	Cermet
				T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	AH905	GH730	GT9530	NS9530
Finishing to light cutting	PSS	DCMT070204-PSS	0.4	●	●	●	●	●	●		●					●	●
		DCMT070208-PSS	0.8	●	●	●	●	●	●		●					●	●
		DCMT11T304-PSS	0.4	●	●	●	●	●	●		●	●	●	●		●	●
		DCMT11T308-PSS	0.8	●	●	●	●	●	●		●	●	●	●		●	●
		DCMT11T312-PSS	1.2	●	●	●	●	●	●		●	●	●	●			
Finishing to medium cutting	PS	DCMT070202-PS	0.2	●	●	●	●	●	●	●	●				●	●	●
		DCMT070204-PS	0.4	●	●	●	●	●	●	●	●				●	●	●
		DCMT070208-PS	0.8	●	●						●				●	●	●
		DCMT11T302-PS	0.2	●	●	●	●	●	●	●	●				●	●	●
		DCMT11T304-PS	0.4	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		DCMT11T308-PS	0.8	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		DCMT11T312-PS	1.2	●	●	●	●	●	●		●	●	●	●			
	23	DCMT070204-23	0.4														●
		DCMT11T304-23	0.4														●
		DCMT11T308-23	0.8														●
Medium cutting	24	DCMT070202-24	0.2														●
		DCMT070204-24	0.4	●	●												●
		DCMT070208-24	0.8		●												●
		DCMT11T302-24	0.2		●												●
		DCMT11T304-24	0.4	●	●												●
		DCMT11T308-24	0.8	●	●		●										●

● : Line up

Reference pages

External toolholders → B218 -
J series toolholders → B331 - B335
Internal toolholders → B287 -
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH330	GH730	GT9530	NS9530	TH10
		Coated												Coated cermet	Cermet	Uncoated
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠			●⊂	⊂	●⊂	⊂	●⊂	●⊂	●
M	Stainless			●	⊂	⊂	✠			●⊂	⊂	●⊂	⊂			●
K	Cast iron	●⊂						●⊂	⊂	●⊂	⊂	●⊂	⊂	●⊂	●⊂	●
N	Non-ferrous															●
S	Superalloys									●⊂	●					
H	Hard materials															

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH330	GH730	GT9530	NS9530	TH10
Finishing	W10	DCGT070200R-W10	0.03															●
		DCGT070200L-W10	0.03															●
		DCGT070202R-W10	0.2														●	●
		DCGT070202L-W10	0.2													●	●	
		DCGT070204R-W10	0.4											●			●	●
		DCGT070204L-W10	0.4											●		●	●	●
	W15	DCGT11T302R-W15	0.2														●	●
		DCGT11T302L-W15	0.2													●	●	
		DCGT11T304R-W15	0.4														●	
		DCGT11T304L-W15	0.4											●		●	●	●
		DCGT11T308R-W15	0.8														●	●
		DCGT11T308L-W15	0.8														●	●
Medium cutting	PM	DCMT070204-PM	0.4	●	●	●	●	●	●			●	●		●	●	●	
		DCMT070208-PM	0.8	●	●	●	●	●	●			●	●		●	●	●	
		DCMT11T304-PM	0.4	●	●	●	●	●	●			●	●		●	●	●	
		DCMT11T308-PM	0.8	●	●	●	●	●	●			●	●		●	●	●	
		DCMT11T312-PM	1.2		●	●	●	●	●				●					
Finishing to medium cutting	CM	DCMT070204-CM	0.4								●							
		DCMT070208-CM	0.8								●							
		DCMT11T304-CM	0.4							●	●							
		DCMT11T308-CM	0.8							●	●							
		DCMT11T312-CM	1.2								●							

● : Line up

Reference pages

External toolholders → B218 -
Internal toolholders → B287 -
J series toolholders → B331 - B335
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		T9105	T5115	GH110	NS9530	TH10	KS05F
P	Steel	●		●	●ⓒ	●	
M	Stainless			●		●	
K	Cast iron	●ⓒ	ⓒ	●	●ⓒ	●	●
N	Non-ferrous					●	●
S	Superalloys			●			●
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	T9105 (Coated)	T5115 (Coated)	GH110 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)	KS05F (Uncoated)
Finishing to medium cutting	AL	DCGT070202-AL	0.2						●
		DCGT070204-AL	0.4						●
		DCGT11T302-AL	0.2						●
		DCGT11T304-AL	0.4						●
		DCGT11T308-AL	0.8						●
	All-round	DCGT070202	0.2				●		
		DCGT070204	0.4				●		
		DCGT11T302	0.2				●		
		DCGT11T304	0.4				●		
		DCGT11T308	0.8				●		
	Angular	DCGT070202R	0.2					●	
		DCGT070202L	0.2					●	
		DCGT070204R	0.4					●	
		DCGT070204L	0.4					●	
		DCGT11T302R	0.2					●	
		DCGT11T302L	0.2					●	
		DCGT11T304R	0.4					●	
		DCGT11T304L	0.4					●	
Medium cutting	-	DCMW070204	0.4	●	●				
		DCMW070208	0.8		●				
		DCMW11T304	0.4	●	●				
		DCMW11T308	0.8		●				
	-	DCGW070202	0.2					●	
		DCGW070204	0.4			●		●	
		DCGW11T304	0.4					●	
		DCGW11T308	0.8					●	

● : Line up

Reference pages

External toolholders → B218 -
J series toolholders → B331 - B335
Internal toolholders → B287 -
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		AH725	SH725	SH730
P	Steel	ⓒ	●ⓒ	●ⓒ
M	Stainless	ⓒ	●ⓒ	●ⓒ
K	Cast iron	ⓒ		
N	Non-ferrous			
S	Superalloys	●		●ⓒ
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	AH725	SH725	SH730
				Coated		
For external turning on small lathes (Sharp edge)	JS	DCGT070200FN-JS	0.03		●	●
		DCGT070201FN-JS	0.1		●	●
		DCGT070202FN-JS	0.2		●	●
		DCGT11T300FN-JS	0.03		●	●
		DCGT11T301FN-JS	0.1		●	●
		DCGT11T302FN-JS	0.2		●	●
		DCGT11T304FN-JS	0.4		●	●
For external turning on small lathes	JS	DCGT070201N-JS	0.1	●		
		DCGT070202N-JS	0.2	●		
		DCGT11T301N-JS	0.1	●		
		DCGT11T302N-JS	0.2	●		
		DCGT11T304N-JS	0.4	●		
For external turning on small lathes (Sharp edge)	JPP	DCET0702008MFR-JPP	<0.08*		●	●
		DCET0702008MFL-JPP	<0.08*		●	●
		DCET070201MFR-JPP	<0.1*		●	●
		DCET070201MFL-JPP	<0.1*		●	●
		DCET0702018MFR-JPP	<0.18*		●	●
		DCET0702018MFL-JPP	<0.18*		●	●
		DCET070202MFR-JPP	<0.2*		●	●
		DCET070202MFL-JPP	<0.2*		●	●
		DCET11T3008MFR-JPP	<0.08*		●	●
		DCET11T3008MFL-JPP	<0.08*		●	●
		DCET11T301MFR-JPP	<0.1*		●	●
		DCET11T301MFL-JPP	<0.1*		●	●
		DCET11T3018MFR-JPP	<0.18*		●	●
		DCET11T3018MFL-JPP	<0.18*		●	●
		DCET11T302MFR-JPP	<0.2*		●	●
		DCET11T302MFL-JPP	<0.2*		●	●

* Corner radius has minus tolerance.

● : Line up

Reference pages

External toolholders → B218 -
J series toolholders → B331 - B335
Internal toolholders → B287 -
PINZBOHR® → F136 - F151

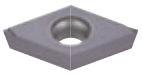
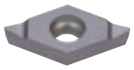
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 55° with hole Positive 7°

		SH725	SH730	J740	J9530	NS9530	TH10
P	Steel	●◐	●◐	●◐	●◐	●◐	●
M	Stainless	●◐	●◐	●◐			●
K	Cast iron				●◐	●◐	●
N	Non-ferrous						●
S	Superalloys		●◐				
H	Hard materials						
		Coated			Coated cermet	Cermet	Uncoated

Application	Chipbreaker	Designation	Corner radius	SH725	SH730	J740	J9530	NS9530	TH10
For external turning on small lathes (Sharp edge)	JRP	DCET0702008MFR-JRP	<0.08*	●	●				
		DCET0702008MFL-JRP	<0.08*	●	●				
		DCET070201MFR-JRP	<0.1*	●	●				
		DCET070201MFL-JRP	<0.1*	●	●				
		DCET0702018MFR-JRP	<0.18*	●	●				
		DCET0702018MFL-JRP	<0.18*	●	●				
		DCET070202MFR-JRP	<0.2*	●	●				
		DCET070202MFL-JRP	<0.2*	●	●				
		DCET11T3008MFR-JRP	<0.08*	●	●				
		DCET11T3008MFL-JRP	<0.08*	●	●				
		DCET11T301MFR-JRP	<0.1*	●	●				
		DCET11T301MFL-JRP	<0.1*	●	●				
		DCET11T3018MFR-JRP	<0.18*	●	●				
		DCET11T3018MFL-JRP	<0.18*	●	●				
		DCET11T302MFR-JRP	<0.2*	●	●				
		DCET11T302MFL-JRP	<0.2*	●	●				
	JSP	DCET0702008MFN-JSP	<0.08*	●	●				
		DCET070201MFN-JSP	<0.1*	●	●				
		DCET0702018MFN-JSP	<0.18*	●	●				
		DCET070202MFN-JSP	<0.2*	●	●				
		DCET11T3008MFN-JSP	<0.08*	●	●				
		DCET11T301MFN-JSP	<0.1*	●	●				
		DCET11T3018MFN-JSP	<0.18*	●	●				
		DCET11T302MFN-JSP	<0.2*	●	●				
	J10	DCGT070200FR-J10	0.03	●		●			●
		DCGT070200FL-J10	0.03	●		●			●
		DCGT070201FR-J10	0.1	●		●		●	●
		DCGT070201FL-J10	0.1	●		●		●	●
		DCGT070202FR-J10	0.2	●		●		●	●
		DCGT070202FL-J10	0.2	●		●		●	●
		DCGT070204FR-J10	0.4	●					
		DCGT070204FL-J10	0.4	●					
		DCGT11T300FR-J10	0.03	●		●			●
		DCGT11T300FL-J10	0.03	●		●			●
		DCGT11T301FR-J10	0.1	●		●		●	●
		DCGT11T301FL-J10	0.1	●		●		●	●
		DCGT11T302FR-J10	0.2	●		●		●	●
		DCGT11T302FL-J10	0.2	●		●		●	●
On small lathes (Honed edge)	J10	DCGT070202R-J10	0.2				●		
		DCGT11T302R-J10	0.2				●		

* Corner radius has minus tolerance.

● : Line up

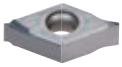
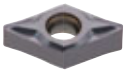
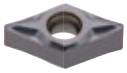
TurnLine - Insert

● : Continuous cutting
ᴄ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE DOUBLE-SIDED

Rhombic, 55° with hole

P	Steel	ᴄ	●ᴄ
M	Stainless	ᴄ	●ᴄ
K	Cast iron	ᴄ	
N	Non-ferrous		
S	Superalloys	●	
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	Coated AH725	Coated SH725
Finishing (Sharp edge)	JRP 	DXGU070301MFRE-JRP	<0.1*		●
		DXGU070301MFLE-JRP	<0.1*		●
		DXGU070302MFRE-JRP	<0.2*		●
		DXGU070302MFLE-JRP	<0.2*		●
Finishing to medium cutting (Sharp edge)	JTS 	DXGU070301MFR-JTS	<0.1*		●
		DXGU070301MFL-JTS	<0.1*		●
		DXGU070302MFR-JTS	<0.2*		●
		DXGU070302MFL-JTS	<0.2*		●
Finishing to medium cutting	JTS 	DXGU070301MR-JTS	<0.1*	●	
		DXGU070301ML-JTS	<0.1*	●	
		DXGU070302MR-JTS	<0.2*	●	
		DXGU070302ML-JTS	<0.2*	●	
Finishing (Low cutting force) (Sharp edge)	JSS	DXGU070301MFR-JSS	<0.1*		●
		DXGU070301MFL-JSS	<0.1*		●
		DXGU070302MFR-JSS	<0.2*		●
		DXGU070302MFL-JSS	<0.2*		●

* Corner radius has minus tolerance.

● : Line up

Reference pages

External toolholders → B190 -
Internal toolholders → B268, B269

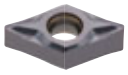
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE DOUBLE-SIDED

Rhombic, 55° with hole

		AH725				GT9530				NS9530				KS05F			
		Coated				Coated cermet				Cermet				Uncoated			
P	Steel	◐				●◐				●◐							
M	Stainless	◐															
K	Cast iron	◐				●◐				●◐				●			
N	Non-ferrous													●			
S	Superalloys	●												●			
H	Hard materials																

Application	Chipbreaker	Designation	Corner radius	AH725	GT9530	NS9530	KS05F
Finishing (Low cutting force)	JSS	DXGU070301MR-JSS	<0.1*	●			
		DXGU070301ML-JSS	<0.1*	●			
		DXGU070302MR-JSS	<0.2*	●			
		DXGU070302ML-JSS	<0.2*	●			
Finishing to medium cutting	TS	DXGU070302R-TS	0.2	●	●	●	●
		DXGU070302L-TS	0.2	●	●	●	●
		DXGU070304R-TS	0.4	●	●	●	●
		DXGU070304L-TS	0.4	●	●	●	●
		DXGU070308R-TS	0.8	●	●	●	●
		DXGU070308L-TS	0.8	●	●	●	●
Finishing (Low cutting force)	SS	DXGU070302R-SS	0.2	●	●	●	●
		DXGU070302L-SS	0.2	●	●	●	●
		DXGU070304R-SS	0.4	●	●	●	●
		DXGU070304L-SS	0.4	●	●	●	●

● : Line up

Reference pages

External toolholders → B190 -
Internal toolholders → B268, B269

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 75° with hole Positive 11°

		GH110	SH725	SH730	GT9530	NS9530	TH10	UX30
		Coated			Coated cermet	Cermet	Uncoated	
P	Steel	●	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●	ⓒ
M	Stainless	●	●ⓒ	●ⓒ			●	ⓒ
K	Cast iron	●			●ⓒ	●ⓒ	●	
N	Non-ferrous						●	
S	Superalloys	●		●ⓒ				
H	Hard materials							

Application	Chipbreaker	Designation	Corner radius	GH110	SH725	SH730	GT9530	NS9530	TH10	UX30
Finishing	W08	EPGT03X100R-W08	0.03			●			●	
		EPGT03X100L-W08	0.03			●			●	
		EPGT03X101R-W08	0.1			●			●	
		EPGT03X101L-W08	0.1			●			●	
		EPGT03X102R-W08	0.2			●			●	
		EPGT03X102L-W08	0.2			●			●	
		EPGT03X104R-W08	0.4			●			●	
		EPGT03X104L-W08	0.4			●			●	
		EPGT040100R-W08	0.03			●			●	
		EPGT040100L-W08	0.03	●		●		●	●	
		EPGT040101R-W08	0.1			●			●	
		EPGT040101L-W08	0.1			●			●	
		EPGT040102R-W08	0.2	●		●		●	●	
		EPGT040102L-W08	0.2	●		●	●	●	●	●
		EPGT040104R-W08	0.4	●		●		●	●	
		EPGT040104L-W08	0.4	●		●	●	●	●	●
Finishing (Sharp edge)	W08	EPGT03X100FL-W08	0.03		●					
		EPGT03X100FR-W08	0.03		●					
		EPGT03X101FL-W08	0.1		●					
		EPGT03X101FR-W08	0.1		●					
		EPGT03X102FL-W08	0.2		●					
		EPGT03X102FR-W08	0.2		●					
		EPGT03X104FL-W08	0.4		●					
		EPGT03X104FR-W08	0.4		●					
		EPGT040100FL-W08	0.03		●					
		EPGT040100FR-W08	0.03		●					
		EPGT040101FL-W08	0.1		●					
		EPGT040101FR-W08	0.1		●					
		EPGT040102FL-W08	0.2		●					
		EPGT040102FR-W08	0.2		●					
		EPGT040104FL-W08	0.4		●					
		EPGT040104FR-W08	0.4		●					

● : Line up

Reference pages

Internal toolholders → B279 - Boring bar tools → F169 - F172
Top-borer tools → F173 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 75° with hole Positive 11°

		SH725	SH730	J740
P	Steel	●◐	●◐	●◐
M	Stainless	●◐	●◐	●◐
K	Cast iron			
N	Non-ferrous			
S	Superalloys		●◐	
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	SH725	SH730	J740
For internal turning on small lathes	JS	EPGT03X101-JS	0.1		●	
		EPGT03X102-JS	0.2		●	
		EPGT03X104-JS	0.4		●	
		EPGT040101-JS	0.1		●	
		EPGT040102-JS	0.2		●	
		EPGT040104-JS	0.4		●	
For internal turning on small lathes (Sharp edge)	JS	EPGT03X101F-JS	0.1	●		
		EPGT03X102F-JS	0.2	●		
		EPGT03X104F-JS	0.4	●		
		EPGT040101F-JS	0.1	●		
		EPGT040102F-JS	0.2	●		
		EPGT040104F-JS	0.4	●		
Finishing	J08	EPGT040100L-J08	0.03		●	●
		EPGT040102L-J08	0.2		●	●
		EPGT040104L-J08	0.4		●	●
Finishing (Sharp edge)	J08	EPGT040100FL-J08	0.03	●		
		EPGT040102FL-J08	0.2	●		
		EPGT040104FL-J08	0.4	●		

● : Line up

Reference pages

Internal toolholders → B279 - Boring bar tools → F169 - F172
Top-borer tools → F173 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Round, with hole Positive 7°

		T9115	T9125	T5115	AH120	AH8005	AH8015	AH905	KS05F
P	Steel	●⊂	⊂✠		●⊂				
M	Stainless				●⊂	●	⊂		
K	Cast iron	●⊂		⊂	●⊂				●
N	Non-ferrous								●
S	Superalloys				●⊂	●	⊂	⊂	●
H	Hard materials								

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T5115	AH120	AH8005	AH8015	AH905	KS05F
				Coated							Uncoated
Finishing to medium cutting	RS	RCMT10T3M0-RS	-	●	●			●	●	●	
		RCMT1204M0-RS	-	●	●			●	●	●	
		RCMT1606M0-RS	-	●	●		●				
		RCMT2006M0-RS	-		●						
		RCMT2507M0-RS	-		●						
	CM	RCMT0502M0-CM	-			●					
		RCMT0602M0-CM	-			●					
		RCMT0803M0-CM	-			●					
	AL	RCGT0602M0-AL	-								●
		RCGT0803M0-AL	-								●
		RCGT1003M0-AL	-								●

● : Line up

Reference pages

External toolholders → **B233 -**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Round, with hole Positive 7°

		T9115	T9125	AH8005	AH8015	AH905	NS9530	TH10
		Coated					Cermet	Uncoated
P	Steel	●◐	◐✠				●◐	●
M	Stainless			●	◐			●
K	Cast iron	●◐					●◐	●
N	Non-ferrous							●
S	Superalloys			●	◐	◐		
H	Hard materials							

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	AH8005	AH8015	AH905	NS9530	TH10
Heavy cutting	61	RCMT0502M0-61	-	●	●				●	●
		RCMT0602M0-61	-	●	●				●	●
		RCMT0803M0-61	-	●	●				●	●
	61	RCMM1003M0-61	-	●	●	●	●	●	●	●
		RCMM1204M0-61	-	●	●	●	●	●	●	●
		RCMM1606M0-61	-	●	●					●
		RCMM2006M0-61	-		●					●
		RCMM2507M0-61	-		●					

ød1 (mm)	Designation	0502M0	0602M0	0803M0	1003M0	10T3M0	1204M0	1606M0	2006M0	2507M0
	RC*T	2.5	2.8	3.4	4.4	4.4	4.4	5.5	6.5	7.6
	RCMM	-	-	-	3.6	-	4.2	5.2	6.5	7.2

Special Round Insert

		TH10	KS20
		Uncoated	
P	Steel	●	
M	Stainless	●	
K	Cast iron	●	◐✠
N	Non-ferrous	●	◐✠
S	Superalloys		◐✠
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	TH10	KS20
Medium cutting	-	RT05	-	●	
		RT06	-	●	●
		RT08	-	●	

● : Line up

Reference pages

RC...: External toolholders → **B233 -**

RT... : External toolholders → **B252**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Round, without hole
Positive 7°

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Ceramics LX11
Medium cutting	-	RCGX090800	-	●
		RCGX120800	-	●

● : Line up

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Square, 90° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725				GT9530				NS9530							
		Coated													Coated cermet				Cermet							
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠			●⊂	⊂				●⊂				●⊂							
M	Stainless			●	⊂	⊂	✠			●⊂	⊂															
K	Cast iron	●⊂						●⊂	⊂	●⊂	⊂				●⊂				●⊂							
N	Non-ferrous																									
S	Superalloys									●⊂	●															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725				GT9530				NS9530							
Finishing to medium cutting	PS	SCMT09T304-PS	0.4	●	●	●	●	●	●				●				●				●							
		SCMT09T308-PS	0.8	●	●	●	●	●	●				●				●				●							
		SCMT120404-PS	0.4	●	●	●	●	●	●				●								●							
		SCMT120408-PS	0.8	●	●	●	●	●	●				●								●							
	23	SCMT09T302-23	0.2																		●							
		SCMT09T308-23	0.8		●							●																
		SCMT120408-23	0.8		●							●	●															
Medium cutting	24	SCMT070204-24	0.4		●																●							
		SCMT09T302-24	0.2																		●							
		SCMT09T304-24	0.4		●																●							
		SCMT09T308-24	0.8	●	●																●							
		SCMT120404-24	0.4		●																●							
		SCMT120408-24	0.8		●																●							
	PM	SCMT09T304-PM	0.4	●	●	●	●	●	●				●								●							
		SCMT09T308-PM	0.8	●	●	●	●	●	●				●								●							
		SCMT120408-PM	0.8	●	●	●	●	●	●				●								●							
		SCMT120412-PM	1.2		●	●	●	●	●				●								●							
Finishing to medium cutting	CM	SCMT09T304-CM	0.4							●	●																	
		SCMT09T308-CM	0.8							●	●																	
		SCMT09T312-CM	1.2								●																	
		SCMT120404-CM	0.4							●	●																	
		SCMT120408-CM	0.8							●	●																	

● : Line up

Reference pages

External toolholders → **B250**

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✣ : Heavy interrupted cutting

POSITIVE TYPE

Square, 90° with hole Positive 11°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GT9530	NS9530	TH10
		Coated								Coated cermet	Cermet	Uncoated
P	Steel	●⊂	⊂✣	⊂	✣	⊂✣	✣	●⊂	⊂	●⊂	●⊂	●
M	Stainless			●	⊂	⊂	✣	●⊂	⊂			●
K	Cast iron	●⊂						●⊂	⊂	●⊂	●⊂	●
N	Non-ferrous											●
S	Superalloys							●⊂	●			
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GT9530	NS9530	TH10
Finishing to medium cutting	PS	SPMT090304-PS	0.4	●	●	●	●	●	●		●	●	●	
		SPMT090308-PS	0.8	●	●	●	●	●	●		●	●	●	
		SPMT120404-PS	0.4	●	●	●	●	●	●		●			
		SPMT120408-PS	0.8	●	●	●	●	●	●		●			
	23	SPMT090304-23	0.4		●								●	
		SPMT090308-23	0.8		●								●	
Medium cutting	24	SPMT090304-24	0.4		●								●	
		SPMT090308-24	0.8		●					●			●	
		SPMT120404-24	0.4										●	
		SPMT120408-24	0.8										●	
Finishing	W15	SPGT090302L-W15	0.2										●	
		SPGT090304L-W15	0.4										●	●
		SPGT090308R-W15	0.8											●
		SPGT090308L-W15	0.8										●	●
	W20	SPGT120404L-W20	0.4										●	

● : Line up

Reference pages

External toolholders → **B243 -** Internal toolholders → **B282, B305**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

POSITIVE TYPE

Square, 90° with hole Positive 11°

		T515	T5115	NS9530	TH10
P	Steel			●◐	●
M	Stainless				●
K	Cast iron	●◐	◐	●◐	●
N	Non-ferrous				●
S	Superalloys				
H	Hard materials				

Application	Chipbreaker	Designation	Corner radius	T515 (Coated)	T5115 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)
Finishing to medium cutting	CM	SPMT090304-CM	0.4		●		
		SPMT090308-CM	0.8		●		
		SPMT120404-CM	0.4	●	●		
		SPMT120408-CM	0.8	●	●		
	- (Tungaloy's standard hole)	SPGM090304L	0.4			●	
		SPGM120304L	0.4			●	
		SPGM120308L	0.8			●	
	-	SPMW090304	0.4		●		
		SPMW090308	0.8		●		
		SPMW120404	0.4		●		
		SPMW120408	0.8		●		
	-	SPGW090302	0.2				●
		SPGW090304	0.4				●
		SPGW120404	0.4				●
	- (Tungaloy's standard hole)	SPGA090304	0.4			●	

● : Line up

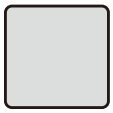
Reference pages

External toolholders → **B243 -** Internal toolholders → **B282, B305**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

POSITIVE TYPE



Square, 90° without hole Positive 11°

		T9125	T5115	NS9530	TH10	UX30	LX11
P	Steel	◐✣		●◐	●	●	
M	Stainless				●	●	
K	Cast iron		◐	●◐	●		
N	Non-ferrous				●		
S	Superalloys						
H	Hard materials						●
		Coated		Cermet	Uncoated		Ceramics

Application	Chipbreaker	Designation	Corner radius	T9125	T5115	NS9530	TH10	UX30	LX11
Finishing to medium cutting	23	SPMR090304-23	0.4			●			
		SPMR090308-23	0.8	●		●			
		SPMR120304-23	0.4	●		●			
		SPMR120308-23	0.8	●		●			
	CM	SPMR090304-CM	0.4		●				
		SPMR090308-CM	0.8		●				
		SPMR120304-CM	0.4		●				
		SPMR120308-CM	0.8		●				
		SPMR120312-CM	1.2		●				
	-	SPGR090304L	0.4			●			
	-	SPGN090304	0.4				●		●
		SPGN090308	0.8				●		●
		SPGN120304	0.4				●		●
		SPGN120308	0.8				●		●
		SPGN120312	1.2			●			●
		SPGN120408	0.8				●		
	-	SPMN090304	0.4		●				
		SPMN090308	0.8		●				
		SPMN120304	0.4		●				
		SPMN120308	0.8		●	●	●	●	
		SPMN120312	1.2		●		●		
		SPMN120408	0.8		●		●		
		SPMN120412	1.2		●				

● : Line up

Reference pages

External toolholders → B243 - Internal toolholders → B282, B305
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 7°

		T9115	T9125	AH725	SH725	J740	GT9530	NS9530	NS520	TH10
P	Steel	●⊂	⊂✠	⊂	●⊂	●⊂	●⊂	●⊂	●⊂	●
M	Stainless			⊂	●⊂	●⊂				●
K	Cast iron	●⊂		⊂			●⊂	●⊂	●⊂	●
N	Non-ferrous									●
S	Superalloys			●						
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	AH725	SH725	J740	GT9530	NS9530	NS520	TH10
				Coated					Coated cermet	Cermet		Uncoated
Precision finishing	01	TCGT090204-01	0.4								●	●
		TCGT110202-01	0.2					●				
		TCGT110204-01	0.4						●	●	●	●
		TCGT110208-01	0.8							●		
		TCGT16T304-01	0.4									●
		TCGT16T308-01	0.8								●	●
Precision finishing (Sharp edge)	01	TCGT110202F-01	0.2				●					
Finishing	PSF	TCMT090202-PSF	0.2			●						
		TCMT090204-PSF	0.4	●	●	●						
		TCMT110202-PSF	0.2			●						
		TCMT110204-PSF	0.4	●	●	●						
		TCMT110302-PSF	0.2			●						
		TCMT110304-PSF	0.4	●	●	●						
		TCMT16T304-PSF	0.4	●	●	●						
Finishing to light cutting	PSS	TCMT090204-PSS	0.4	●	●	●						
		TCMT090208-PSS	0.8	●	●	●						
		TCMT110204-PSS	0.4	●	●	●						
		TCMT110208-PSS	0.8	●	●	●						
		TCMT110304-PSS	0.4	●	●	●						
		TCMT110308-PSS	0.8	●	●	●						
		TCMT16T304-PSS	0.4	●	●	●						
		TCMT16T308-PSS	0.8	●	●	●						
		TCMT16T312-PSS	1.2	●	●	●						

● : Line up

Reference pages

External toolholders → B247
Internal toolholders → B283
J series toolholders → B336
PINZBOHR® → F136 - F151

TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	AH725	GH730	GT9530	NS9530	TH10
		Coated								Coated cermet	Cermet	Uncoated
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠	⊂	⊂	●⊂	●⊂	●
M	Stainless			●	⊂	⊂	✠	⊂	⊂			●
K	Cast iron	●⊂						⊂	⊂	●⊂	●⊂	●
N	Non-ferrous											●
S	Superalloys							●				
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH725	GH730	GT9530	NS9530	TH10
Finishing to medium cutting	PS	TCMT090204-PS	0.4							●				
		TCMT090208-PS	0.8							●				
		TCMT110202-PS	0.2	●	●	●	●	●	●	●	●	●	●	
		TCMT110204-PS	0.4	●	●	●	●	●	●	●	●	●	●	
		TCMT110208-PS	0.8	●	●	●	●	●	●	●	●	●	●	
		TCMT110302-PS	0.2	●	●	●	●	●	●					
		TCMT110304-PS	0.4	●	●	●	●	●	●					
		TCMT110308-PS	0.8	●	●	●	●	●	●					
		TCMT16T302-PS	0.2	●	●	●	●	●	●	●			●	
		TCMT16T304-PS	0.4	●	●	●	●	●	●	●			●	
		TCMT16T308-PS	0.8	●	●	●	●	●	●	●				
	23	TCMT090204-23	0.4		●								●	
		TCMT110204-23	0.4										●	
		TCMT16T304-23	0.4										●	
		TCMT16T308-23	0.8		●									
Medium cutting	24	TCMT090202-24	0.2										●	
		TCMT090204-24	0.4	●	●								●	
		TCMT110202-24	0.2										●	
		TCMT110204-24	0.4	●	●								●	
		TCMT110208-24	0.8		●									
		TCMT16T304-24	0.4	●	●								●	
		TCMT16T308-24	0.8	●	●					●				
Finishing	W15	TCGT16T302L-W15	0.2											●
		TCGT16T304L-W15	0.4										●	●
		TCGT16T308L-W15	0.8											●

● : Line up

Reference pages

External toolholders → B247 Internal toolholders → B283
J series toolholders → B336 PINZBOHR® → F136 - F151

TurnLine - Insert

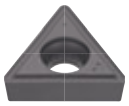
● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH725	NS9530	KS05F
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠			⊂	●⊂	
M	Stainless			●	⊂	⊂	✠			⊂		
K	Cast iron	●⊂						●⊂	⊂	⊂	●⊂	●
N	Non-ferrous											●
S	Superalloys									●		●
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH725	NS9530	KS05F
				Coated									Cermet	Uncoated
Medium cutting	PM	TCMT110202-PM	0.2			●	●	●	●			●		
		TCMT110204-PM	0.4	●	●	●	●	●	●			●	●	
		TCMT110208-PM	0.8	●	●	●	●	●	●			●	●	
		TCMT110302-PM	0.2			●	●	●	●					
		TCMT110304-PM	0.4			●	●	●	●					
		TCMT110308-PM	0.8			●	●	●	●					
		TCMT16T304-PM	0.4	●	●	●	●	●	●			●	●	
		TCMT16T308-PM	0.8	●	●	●	●	●	●			●	●	
		TCMT16T312-PM	1.2	●	●	●	●	●	●			●		
Finishing to medium cutting	CM	TCMT090204-CM	0.4								●			
		TCMT090208-CM	0.8								●			
		TCMT110204-CM	0.4								●			
		TCMT110208-CM	0.8								●			
		TCMT110304-CM	0.4								●			
		TCMT110308-CM	0.8								●			
		TCMT16T304-CM	0.4							●	●			
		TCMT16T308-CM	0.8							●	●			
		TCMT16T312-CM	1.2							●	●			
	SS	TCGT110202-SS	0.2										●	
		TCGT110204-SS	0.4										●	
		TCGT110208-SS	0.8										●	
		TCGT16T304-SS	0.4										●	
	AL	TCGT110202-AL	0.2											●
		TCGT110204-AL	0.4											●
		TCGT16T302-AL	0.2											●
		TCGT16T304-AL	0.4											●
		TCGT16T308-AL	0.8											●



● : Line up

Reference pages

External toolholders → B247 Internal toolholders → B283
J series toolholders → B336 PINZBOHR® → F136 - F151

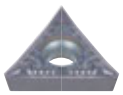
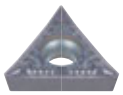
TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 7°

		AH725	SH725	SH730	J740	NS9530	TH10
P	Steel	ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless	ⓒ	●ⓒ	●ⓒ	●ⓒ		●
K	Cast iron	ⓒ				●ⓒ	●
N	Non-ferrous						●
S	Superalloys	●		●ⓒ			
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	AH725 (Coated)	SH725 (Coated)	SH730 (Coated)	J740 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)
Finishing	-	TCGT080102R	0.2					●	●
For external turning on small lathes (Sharp edge)	JS	TCGT110200FN-JS	0.03		●	●			
		TCGT110201FN-JS	0.1		●	●			
		TCGT110202FN-JS	0.2		●	●			
		TCGT110204FN-JS	0.4		●	●			
									
On small lathes (Honed edge)	JS	TCGT110201N-JS	0.1	●					
		TCGT110202N-JS	0.2	●					
		TCGT110204N-JS	0.4	●					
									
For external turning on small lathes (Sharp edge)	J08	TCGT080200FR-J08	0.03		●		●		●
		TCGT080200FL-J08	0.03		●		●		●
		TCGT080201FR-J08	0.1		●		●		●
		TCGT080201FL-J08	0.1		●		●		●
		TCGT080202FR-J08	0.2		●		●		●
		TCGT080202FL-J08	0.2		●		●		●
		TCGT080204FR-J08	0.4		●				

● : Line up

Reference pages

Internal toolholders → B283
J series toolholders → B336

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 7°

		SH725	J740	J9530	NS9530	TH10
P	Steel	●◐	●◐	●◐	●◐	●
M	Stainless	●◐	●◐			●
K	Cast iron			●◐	●◐	●
N	Non-ferrous					●
S	Superalloys					
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	SH725 (Coated)	J740 (Coated)	J9530 (Coated cermet)	NS9530 (Cermet)	TH10 (Uncoated)
For external turning on small lathes (Sharp edge)	J10	TCGT110200FR-J10	0.03	●	●			●
		TCGT110200FL-J10	0.03	●	●			●
		TCGT110201FR-J10	0.1	●	●			●
		TCGT110201FL-J10	0.1	●	●			●
		TCGT110202FR-J10	0.2	●	●		●	●
		TCGT110202FL-J10	0.2	●	●		●	●
		TCGT110204FR-J10	0.4	●				
		TCGT110300FR-J10	0.03	●	●			●
		TCGT110300FL-J10	0.03	●	●			●
		TCGT110301FR-J10	0.1	●	●			●
		TCGT110301FL-J10	0.1	●	●			●
		TCGT110302FR-J10	0.2	●	●		●	●
		TCGT110302FL-J10	0.2	●	●		●	●
On small lathes (Honed edge)	J10	TCGT110302R-J10	0.2			●		
		TCGT110302L-J10	0.2			●		

● : Line up

Reference pages

Internal toolholders → B283
J series toolholders → B336

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 11°

		T9115	T9125	AH725	GH730	GT9530	GT720	NS9530	NS520	TH10
P	Steel	●ⓒ	ⓒ✠	ⓒ	ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless			ⓒ	ⓒ					●
K	Cast iron	●ⓒ		ⓒ	ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
N	Non-ferrous									●
S	Superalloys			●						
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	AH725	GH730	GT9530	GT720	NS9530	NS520	TH10
				Coated				Coated cermet		Cermet		Uncoated
Precision finishing	01	TPGT090202-01	0.2					●		●		
		TPGT090204-01	0.4					●		●	●	●
		TPGT110202-01	0.2					●		●		
		TPGT110204-01	0.4					●		●	●	●
		TPGT110208-01	0.8							●		
		TPGT130302-01	0.2						●	●		
		TPGT130304-01	0.4					●		●	●	●
		TPGT130308-01	0.8							●	●	
		TPGT16T304-01	0.4					●		●	●	●
		TPGT16T308-01	0.8						●	●	●	
Finishing	PSF	TPMT090202-PSF	0.2			●				●		
		TPMT090204-PSF	0.4	●	●	●		●		●		
		TPMT110202-PSF	0.2			●		●		●		
		TPMT110204-PSF	0.4	●	●	●		●		●		
		TPMT110302-PSF	0.2			●				●		
		TPMT110304-PSF	0.4	●	●	●		●		●		
		TPMT130304-PSF	0.4	●	●	●						
		TPMT16T304-PSF	0.4	●	●	●						
	PF	TPMT110204-PF	0.4				●	●		●		
		TPMT110208-PF	0.8					●		●		
		TPMT110302-PF	0.2				●			●		
		TPMT110304-PF	0.4				●	●		●		
		TPMT130304-PF	0.4					●		●		
		TPMT130308-PF	0.8							●		
		TPMT16T304-PF	0.4					●		●		

● : Line up

Reference pages

Mounting hole specifications → B141

External toolholders → B243 - B245
Cartridges → F152 -
Top-borer tools → F173 -
Internal toolholders → B284 -
Boring bar tools → F169 - F172

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 11°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GH730	GT9530	NS9530
		Coated									Coated cermet	Cermet
P	Steel	●◐	◐✠	◐	✠	◐✠	✠	●◐	◐	◐	●◐	●◐
M	Stainless			●	◐	◐	✠	●◐	◐	◐		
K	Cast iron	●◐						●◐	◐	◐	●◐	●◐
N	Non-ferrous											
S	Superalloys							●◐	●			
H	Hard materials											

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	GH730	GT9530	NS9530
Finishing to light cutting	PSS	TPMT090204-PSS	0.4	●	●	●	●	●	●		●		●	●
		TPMT090208-PSS	0.8	●	●	●	●	●	●		●		●	●
		TPMT110204-PSS	0.4	●	●	●	●	●	●		●		●	●
		TPMT110208-PSS	0.8	●	●	●	●	●	●		●		●	●
		TPMT110304-PSS	0.4	●	●	●	●	●	●		●			
		TPMT110308-PSS	0.8	●	●	●	●	●	●		●			
		TPMT130304-PSS	0.4	●	●	●	●	●	●		●			
		TPMT130308-PSS	0.8	●	●	●	●	●	●		●		●	●
		TPMT16T304-PSS	0.4	●	●	●	●	●	●		●		●	●
		TPMT16T308-PSS	0.8	●	●	●	●	●	●		●		●	●
Finishing to medium cutting	PS	TPMT090202-PS	0.2	●	●	●	●	●	●		●	●	●	●
		TPMT090204-PS	0.4	●	●	●	●	●	●		●	●	●	●
		TPMT090208-PS	0.8	●	●	●	●	●	●		●	●	●	●
		TPMT110202-PS	0.2	●	●	●	●	●	●		●	●	●	●
		TPMT110204-PS	0.4	●	●	●	●	●	●	●	●	●	●	●
		TPMT110208-PS	0.8	●	●	●	●	●	●	●	●	●	●	●
		TPMT110304-PS	0.4	●	●	●	●	●	●		●	●	●	●
		TPMT110308-PS	0.8	●	●	●	●	●	●		●	●	●	●
		TPMT130302-PS	0.2	●	●						●		●	●
		TPMT130304-PS	0.4	●	●	●	●	●	●		●		●	●
		TPMT130308-PS	0.8	●	●	●	●	●	●		●		●	●
		TPMT16T304-PS	0.4	●	●	●	●	●	●		●		●	●
		TPMT16T308-PS	0.8	●	●	●	●	●	●		●		●	●
	23	TPMT090202-23	0.2											●
		TPMT090204-23	0.4		●									●
		TPMT110204-23	0.4		●									●
		TPMT130304-23	0.4		●									●
		TPMT130308-23	0.8		●									●
		TPMT16T304-23	0.4											●
		TPMT16T308-23	0.8		●									●

● : Line up

Reference pages

Mounting hole specifications → **B141**

External toolholders → **B243 - B245** Internal toolholders → **B284 -**
Cartridges → **F152 -**

TurnLine - Insert

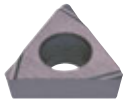
● : Continuous cutting
⊂ : Light interrupted cutting
✣ : Heavy interrupted cutting

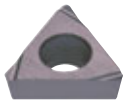
POSITIVE TYPE

Triangular, 60° with hole Positive 11°

		T9125	GH110	SH725	SH730	GT9530	NS9530	TH10	UX30
		Coated				Coated cermet	Cermet	Uncoated	
P	Steel	⊂✣	●	●⊂	●⊂	●⊂	●⊂	●	⊂
M	Stainless		●	●⊂	●⊂			●	⊂
K	Cast iron		●			●⊂	●⊂	●	
N	Non-ferrous							●	
S	Superalloys		●		●⊂				
H	Hard materials								

Application	Chipbreaker	Designation	Corner radius	T9125	GH110	SH725	SH730	GT9530	NS9530	TH10	UX30
Medium cutting	24	TPMT090204-24	0.4	●					●		
		TPMT110204-24	0.4	●					●		
		TPMT110208-24	0.8						●		
		TPMT130304-24	0.4	●					●		
		TPMT130308-24	0.8	●					●		
		TPMT16T304-24	0.4	●					●		
		TPMT16T308-24	0.8	●					●		
Finishing	W08	TPGT070100R-W08	0.03				●			●	
		TPGT070100L-W08	0.03				●			●	
		TPGT070101R-W08	0.1				●			●	
		TPGT070101L-W08	0.1				●			●	
		TPGT070102R-W08	0.2				●			●	
		TPGT070102L-W08	0.2				●			●	
		TPGT070104R-W08	0.4				●			●	
		TPGT070104L-W08	0.4				●			●	
		TPGT080200L-W08	0.03					●	●		
		TPGT080202L-W08	0.2		●			●	●	●	●
		TPGT080204L-W08	0.4		●			●	●	●	●
Finishing (Sharp edge)	W08	TPGT070100FL-W08	0.03			●					
		TPGT070100FR-W08	0.03			●					
		TPGT070101FL-W08	0.1			●					
		TPGT070101FR-W08	0.1			●					
		TPGT070102FL-W08	0.2			●					
		TPGT070102FR-W08	0.2			●					
		TPGT070104FL-W08	0.4			●					
		TPGT070104FR-W08	0.4			●					





● : Line up

Reference pages

Mounting hole specifications → B141

External toolholders → B243 - B245
Cartridges → F152 -
Internal toolholders → B284 -
Top-borer tools → F173 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole Positive 11°

		GH110	GH330	GT9530	NS9530	TH10	UX30
P	Steel	●	●◐	●◐	●◐	●	◐
M	Stainless	●	●◐			●	◐
K	Cast iron	●	●◐	●◐	●◐	●	
N	Non-ferrous					●	
S	Superalloys	●					
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	Coated		Coated cermet	Cermet	Uncoated	
				GH110	GH330	GT9530	NS9530	TH10	UX30
Finishing	W10	TPGH080202L-W10	0.2			●	●		
		TPGH080204L-W10	0.4			●	●		
		TPGH090204L-W10	0.4			●	●		
	W13	TPGH110204L-W13	0.4			●	●		
		TPGH110302L-W13	0.2			●	●		
		TPGH110304L-W13	0.4			●	●		
	W15	TPGT090202R-W15	0.2				●		
		TPGT090202L-W15	0.2			●	●	●	
		TPGT090204R-W15	0.4				●		
		TPGT090204L-W15	0.4	●	●	●	●	●	●
		TPGT110202R-W15	0.2				●		
		TPGT110202L-W15	0.2			●	●	●	
		TPGT110204L-W15	0.4	●	●	●	●	●	●
		TPGT110208R-W15	0.8				●		
		TPGT110208L-W15	0.8						●
		TPGT110302L-W15	0.2				●		
		TPGT110304R-W15	0.4				●		
		TPGT110304L-W15	0.4				●		
		TPGT110308L-W15	0.8				●		
		TPGT130302R-W15	0.2				●		
		TPGT130302L-W15	0.2			●	●	●	
		TPGT130304R-W15	0.4	●			●		
		TPGT130304L-W15	0.4	●	●	●	●	●	●
		TPGT130308L-W15	0.8				●	●	
		TPGT16T302R-W15	0.2				●		
		TPGT16T302L-W15	0.2			●	●	●	
		TPGT16T304R-W15	0.4				●	●	
		TPGT16T304L-W15	0.4	●	●	●	●	●	●
		TPGT16T308L-W15	0.8				●	●	●

● : Line up

Reference pages

Mounting hole specifications → **B141**

External toolholders → **B243 - B245** Internal toolholders → **B284 -**
Cartridges → **F152 -**

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole
Positive 11°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH330	GH730			GT9530				NS9530						
		Coated														Coated cermet				Cermet						
P	Steel	●ⓒ	ⓒ✠	ⓒ	✠	ⓒ✠	✠			●ⓒ	ⓒ	●ⓒ	ⓒ			●ⓒ				●ⓒ						
M	Stainless			●	ⓒ	ⓒ	✠			●ⓒ	ⓒ	●ⓒ	ⓒ													
K	Cast iron	●ⓒ						●ⓒ	ⓒ	●ⓒ	ⓒ	●ⓒ	ⓒ			●ⓒ				●ⓒ						
N	Non-ferrous																									
S	Superalloys									●ⓒ	●															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH330	GH730			GT9530				NS9530						
Medium cutting	PM	TPMT090204-PM	0.4			●	●	●	●				●															
		TPMT090208-PM	0.8			●	●	●	●				●															
		TPMT110204-PM	0.4	●	●	●	●	●	●				●		●			●				●						
		TPMT110208-PM	0.8	●	●	●	●	●	●			●	●		●													
		TPMT110304-PM	0.4	●	●	●	●	●	●				●		●			●				●						
		TPMT110308-PM	0.8	●	●	●	●	●	●				●		●													
		TPMT130304-PM	0.4		●	●	●	●	●				●									●						
		TPMT130308-PM	0.8		●	●	●	●	●				●					●				●						
		TPMT16T304-PM	0.4		●	●	●	●	●				●									●						
		TPMT16T308-PM	0.8		●	●	●	●	●				●															
		TPMT16T312-PM	1.2		●	●	●	●	●				●															
Finishing to medium cutting	CM	TPMT090204-CM	0.4								●																	
		TPMT090208-CM	0.8								●																	
		TPMT110204-CM	0.4								●																	
		TPMT110208-CM	0.8								●																	
		TPMT110304-CM	0.4								●																	
		TPMT110308-CM	0.8								●																	
		TPMT130304-CM	0.4								●																	
		TPMT130308-CM	0.8								●																	
		TPMT16T304-CM	0.4							●	●																	
		TPMT16T308-CM	0.8							●	●																	
		TPMT16T312-CM	1.2							●	●																	
	SS	TPGT110202-SS	0.2																			●						
		TPGT110204-SS	0.4											●								●						
		TPGT130302-SS	0.2																			●						
		TPGT130304-SS	0.4											●								●						
		TPGT16T304-SS	0.4											●								●						

● : Line up

Reference pages

Mounting hole specifications → **B141**

External toolholders → **B243 - B245**
Cartridges → **F152 -**
Top-borer tools → **F173 -**
Internal toolholders → **B284 -**
Boring bar tools → **F169 - F172**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

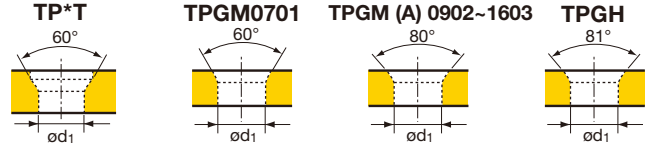
Triangular, 60° with hole Positive 11°

		T5115	GT9530	NS9530	TH10	UX30
P	Steel		●◐	●◐	●	◐
M	Stainless				●	◐
K	Cast iron	◐	●◐	●◐	●	
N	Non-ferrous				●	
S	Superalloys					
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	T5115 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	TH10 (Uncoated)	UX30 (Uncoated)
Finishing to medium cutting	H11	TPGH110302L-H11	0.2		●	●		
		TPGH110304L-H11	0.4		●	●		
	-	TPGM070102R	0.2			●		
		TPGM070102L	0.2			●	●	
		TPGM070104R	0.4			●		
		TPGM070104L	0.4			●	●	
		TPGM090202R	0.2			●		
		TPGM090202L	0.2			●		
		TPGM090204L	0.4			●		
		TPGM110202R	0.2			●		
	Tungaloy-standard hole Not ISO	TPGM110202L	0.2			●		●
		TPGM110204R	0.4			●		
		TPGM110204L	0.4			●		●
		TPGM110302R	0.2			●		
		TPGM110302L	0.2			●		
	TPGM...R/L	TPGM110302L-2	0.2				●	
		TPGM110304R	0.4			●		
		TPGM110304L	0.4			●		●
		TPGM110304L-2	0.4				●	
		TPGM160302L	0.2			●		
		TPGM160304R	0.4			●		
		TPGM160304L	0.4			●		●
		TPGM160304L-2	0.4				●	
	-	TPMW110204	0.4	●				
		TPMW110208	0.8	●				
		TPMW130304	0.4	●				
		TPMW130308	0.8	●				
		TPMW16T304	0.4	●				
		TPMW16T308	0.8	●				

● : Line up

Mounting hole specifications



ød1 (mm)	0701**	0802**	0902**	1102**	1103**	1303**	1603**	16T3**
TP*T(W)	-	2.3	2.5	2.8	3.4	3.4	-	4.4
TPGM(A)	2.7	-	3.2	3.0	3.0	-	4.0	-
TPGH	-	2.3	3.0	3.4	3.4	-	4.5	-

Reference pages

External toolholders → B243 - B245 Internal toolholders → B284 -
Cartridges → F152 -

TurnLine - Insert

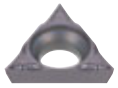
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° with hole
Positive 11°

		GH110	SH725	SH730	NS9530	TH10
P	Steel	●			●◐	●
M	Stainless	●				●
K	Cast iron	●			●◐	●
N	Non-ferrous					●
S	Superalloys	●				
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	GH110 (Coated)	SH725 (Coated)	SH730 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)
Finishing to medium cutting	-	TPGA090204	0.4					●
		TPGA110202	0.2				●	●
		TPGA110204	0.4					●
		TPGA110302	0.2				●	●
		TPGA110304	0.4					●
		TPGA160304	0.4				●	●
		TPGA160308	0.8					●
	-	TPGW090202	0.2					●
		TPGW090204	0.4					●
		TPGW110202	0.2					●
		TPGW110204	0.4	●				●
		TPGW110304	0.4					●
		TPGW130304	0.4					●
		TPGW16T304	0.4	●				●
		TPGW16T308	0.8					●
For internal turning on small lathes	JS	TPGT070101-JS	0.1			●		
		TPGT070102-JS	0.2			●		
		TPGT070104-JS	0.4			●		
For internal turning on small lathes (Sharp edge)	JS	TPGT070101F-JS	0.1		●			
		TPGT070102F-JS	0.2		●			
		TPGT070104F-JS	0.4		●			



● : Line up

Reference pages

External toolholders → B243 - B245 Internal toolholders → B284 -
Cartridges → F152 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° without hole Positive 11°

		T9115	T9125	T5115	AH725	NS9530	TH10
		Coated				Cermet	Uncoated
P	Steel	●◐	◐✠		◐	●◐	●
M	Stainless				◐		●
K	Cast iron	●◐		◐	◐	●◐	●
N	Non-ferrous						●
S	Superalloys				●		
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T5115	AH725	NS9530	TH10
Finishing to medium cutting	PS	TPMR110304-PS	0.4		●				
		TPMR110308-PS	0.8		●				
		TPMR160304-PS	0.4		●				
		TPMR160308-PS	0.8		●				
	23	TPMR110304-23	0.4	●	●			●	
		TPMR110308-23	0.8		●			●	●
		TPMR160304-23	0.4	●	●			●	●
		TPMR160308-23	0.8		●			●	
Medium cutting	24	TPMR110304-24	0.4		●			●	
		TPMR110308-24	0.8		●			●	
		TPMR160304-24	0.4	●	●		●	●	
		TPMR160308-24	0.8	●	●			●	
Finishing to medium cutting	CM	TPMR110304-CM	0.4			●			
		TPMR110308-CM	0.8			●			
		TPMR160304-CM	0.4			●			
		TPMR160308-CM	0.8			●			
		TPMR160312-CM	1.2			●			

● : Line up

Reference pages

External toolholders → B243 -
Cartridges → F152 -
Internal toolholders → B305

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Triangular, 60° without hole Positive 11°

		T5115	GH110	AH120	NS9530	TH10	UX30	LX21	LX11
P	Steel		●	●◐	●◐	●	◐		
M	Stainless		●	●◐		●	◐		
K	Cast iron	◐	●	●◐	●◐	●		●	
N	Non-ferrous					●			
S	Superalloys		●	●◐					
H	Hard materials								●

Application	Chipbreaker	Designation	Corner radius	T5115	GH110	AH120	NS9530	TH10	UX30	LX21	LX11
Finishing to medium cutting	-	TPGR110302L	0.2				●				
		TPGR110304L	0.4				●				
		TPGR160304R	0.4				●				
		TPGR160304L	0.4				●				
		TPGR160308L	0.8				●				
	-	TPMN110304	0.4	●				●			
		TPMN110308	0.8	●							
		TPMN160304	0.4	●		●		●	●		
		TPMN160308	0.8	●		●		●	●		
		TPMN160312	1.2	●							
		TPMN220408	0.8						●		
		TPMN220412	1.2						●		
	-	TPGN110302	0.2					●			
		TPGN110304	0.4		●			●		●	●
		TPGN110308	0.8					●			●
		TPGN160302	0.2					●			
		TPGN160304	0.4		●		●	●			●
		TPGN160308	0.8		●		●	●			●
		TPGN160312	1.2								●
		TPGN220404	0.4					●			

● : Line up

Reference pages

External toolholders → B243 -
Cartridges → F152 -
Internal toolholders → B305

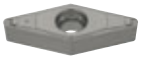
TurnLine - Insert

● : Continuous cutting
⊂ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 35° with hole Positive 5°

		T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725				GT9530				NS9530							
P	Steel	●⊂	⊂✠	⊂	✠	⊂✠	✠			●⊂	⊂				●⊂				●⊂							
M	Stainless			●	⊂	⊂	✠			●⊂	⊂															
K	Cast iron	●⊂						●⊂	⊂	●⊂	⊂				●⊂				●⊂							
N	Non-ferrous																									
S	Superalloys									●⊂	●															
H	Hard materials																									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725				GT9530				NS9530							
				Coated													Coated cermet				Cermet							
Finishing	PSF	VBMT110302-PSF	0.2										●				●				●							
		VBMT110304-PSF	0.4	●	●								●				●				●							
		VBMT160402-PSF	0.2										●				●				●							
		VBMT160404-PSF	0.4	●	●								●				●				●							
	PF	VBMT110302-PF	0.2														●				●							
		VBMT110304-PF	0.4														●				●							
		VBMT110308-PF	0.8														●				●							
		VBMT160404-PF	0.4														●				●							
		VBMT160408-PF	0.8		●												●				●							
Finishing to light cutting	PSS	VBMT110304-PSS	0.4	●	●	●	●	●	●				●				●				●							
		VBMT110308-PSS	0.8	●	●	●	●	●	●				●				●				●							
		VBMT160404-PSS	0.4	●	●	●	●	●	●				●				●				●							
		VBMT160408-PSS	0.8	●	●	●	●	●	●				●				●				●							
		VBMT160412-PSS	1.2	●	●								●															
Finishing to medium cutting	PS	VBMT110302-PS	0.2	●	●	●	●	●	●				●				●				●							
		VBMT110304-PS	0.4	●	●	●	●	●	●			●	●				●				●							
		VBMT110308-PS	0.8	●	●	●	●	●	●			●	●				●				●							
		VBMT160402-PS	0.2	●	●	●	●	●	●				●				●				●							
		VBMT160404-PS	0.4	●	●	●	●	●	●			●	●				●				●							
		VBMT160408-PS	0.8	●	●	●	●	●	●			●	●				●				●							
Medium cutting	24	VBMT160404-24	0.4	●	●																●							
		VBMT160408-24	0.8	●	●																●							
Finishing to medium cutting	CM	VBMT110304-CM	0.4								●																	
		VBMT110308-CM	0.8								●																	
		VBMT160404-CM	0.4							●	●																	
		VBMT160408-CM	0.8							●	●																	
		VBMT160412-CM	1.2							●	●																	

● : Line up

Reference pages

External toolholders → B219 Internal toolholders → B282 -
J series toolholders → B337 - B340

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 35° with hole Positive 5°

		AH725	SH725	SH730	J740	J9530	NS9530	TH10
		Coated				Coated cermet	Cermet	Uncoated
P	Steel	ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●ⓒ	●
M	Stainless	ⓒ	●ⓒ	●ⓒ	●ⓒ			●
K	Cast iron	ⓒ				●ⓒ	●ⓒ	●
N	Non-ferrous							●
S	Superalloys	●		●ⓒ				
H	Hard materials							

Application	Chipbreaker	Designation	Corner radius	AH725	SH725	SH730	J740	J9530	NS9530	TH10
For external turning on small lathes (Sharp edge)	JS	VBGT110300FN-JS	0.03		●	●				
		VBGT110301FN-JS	0.1		●	●				
		VBGT110302FN-JS	0.2		●	●				
		VBGT110304FN-JS	0.4		●	●				
For external turning on small lathes	JS	VBGT110301N-JS	0.1	●						
		VBGT110302N-JS	0.2	●						
		VBGT110304N-JS	0.4	●						
For external turning on small lathes (Sharp edge)	J10	VBGT110300FR-J10	0.03		●		●			●
		VBGT110300FL-J10	0.03		●		●			●
		VBGT110301FR-J10	0.1		●		●		●	●
		VBGT110301FL-J10	0.1		●		●		●	●
		VBGT110302FR-J10	0.2		●		●		●	●
		VBGT110302FL-J10	0.2		●		●		●	●
		VBGT110304FR-J10	0.4		●		●		●	●
		VBGT110304FL-J10	0.4		●		●		●	●
On small lathes (Honed edge)	J10	VBGT110302R-J10	0.2					●		
		VBGT110302L-J10	0.2					●		
		VBGT110304R-J10	0.4					●		
		VBGT110304L-J10	0.4					●		

● : Line up

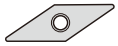
Reference pages

External toolholders → B219 Internal toolholders → B282 - J series toolholders → B337 - B340

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE



Rhombic, 35° with hole Positive 7°

		T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	AH905			GT9530				NS9530						
		Coated													Coated cermet				Cermet						
P	Steel	●ⓒ	ⓒ✠	ⓒ	✠	ⓒ✠	✠	●ⓒ	ⓒ						●ⓒ				●ⓒ						
M	Stainless			●	ⓒ	ⓒ	✠	●ⓒ	ⓒ	●	ⓒ														
K	Cast iron	●ⓒ						●ⓒ	ⓒ						●ⓒ				●ⓒ						
N	Non-ferrous																								
S	Superalloys							●ⓒ	●	●	ⓒ	ⓒ													
H	Hard materials																								

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	AH905			GT9530				NS9530						
Finishing	PSF	VCMT080202-PSF	0.2								●						●				●						
		VCMT080204-PSF	0.4	●	●						●						●				●						
		VCMT110302-PSF	0.2								●																
		VCMT110304-PSF	0.4	●	●						●																
		VCMT160404-PSF	0.4	●	●						●	●	●	●			●				●						
		VCMT160408-PSF	0.8	●	●						●	●	●	●			●				●						
	PF	VCMT080202-PF	0.2														●				●						
		VCMT080204-PF	0.4														●				●						
		VCMT160404-PF	0.4														●				●						
		VCMT160408-PF	0.8														●				●						
Finishing to light cutting	PSS	VCMT110304-PSS	0.4	●	●	●	●	●	●		●						●				●						
		VCMT110308-PSS	0.8	●	●	●	●	●	●		●						●				●						
		VCMT160404-PSS	0.4	●	●	●	●	●	●		●	●	●	●			●				●						
		VCMT160408-PSS	0.8	●	●	●	●	●	●		●	●	●	●			●				●						
Finishing to medium cutting	PS	VCMT110302-PS	0.2	●	●	●	●	●	●		●						●				●						
		VCMT110304-PS	0.4	●	●	●	●	●	●		●						●				●						
		VCMT110308-PS	0.8	●	●	●	●	●	●		●						●				●						
		VCMT160404-PS	0.4	●	●	●	●	●	●	●	●	●	●	●			●				●						
		VCMT160408-PS	0.8	●	●	●	●	●	●	●	●	●	●	●			●				●						

● : Line up

Reference pages

External toolholders → **B246 -**
TungCap → **F011**
Internal toolholders → **B282 -**

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 35° with hole Positive 7°

		T9115	T9125	T515	T5115	AH8005	AH8015	AH905	NS9530	KS05F
P	Steel	●ⓒ	ⓒ✠						●ⓒ	
M	Stainless					●	ⓒ			
K	Cast iron	●ⓒ		●ⓒ	ⓒ				●ⓒ	●
N	Non-ferrous									●
S	Superalloys					●	ⓒ	ⓒ		●
H	Hard materials									

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	T515	T5115	AH8005	AH8015	AH905	NS9530	KS05F
				Coated							Cermet	Uncoated
Finishing to medium cutting	**24**	**VCMT160404-24**	0.4	●	●						●	
		VCMT160408-24	0.8	●	●						●	
	CM	**VCMT080204-CM**	0.4				●					
		VCMT160404-CM	0.4			●	●					
		VCMT160408-CM	0.8			●	●					
		VCMT160412-CM	1.2				●					
Medium cutting	**All-round**	**VCMT160404**	0.4					●	●	●		
		VCMT160408	0.8					●	●	●		
		VCMT160412	1.2					●	●	●		
Finishing to medium cutting	**AL**	**VCGT160404-AL**	0.4									●
		VCGT160408-AL	0.8									●
		VCGT160412-AL	1.2									●
		VCGT220520-AL	2.0									●
		VCGT220530-AL	3.0									●

● : Line up

Reference pages

VC*T... : External toolholders → **B246 -**, Internal toolholders → **B282 -**

VPET... : J series toolholders → **B341**

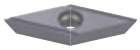
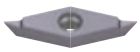
TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 35° with hole Positive 11°

		SH725	SH730
P	Steel	●◐	●◐
M	Stainless	●◐	●◐
K	Cast iron		
N	Non-ferrous		
S	Superalloys		●◐
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	SH725 (Coated)	SH730 (Coated)
For external turning on small lathes (Sharp edge)	JPP	VPET0802008MFR-JPP	<0.08*	●	●
		VPET0802008MFL-JPP	<0.08*	●	●
		VPET080201MFR-JPP	<0.1*	●	●
		VPET080201MFL-JPP	<0.1*	●	●
		VPET0802018MFR-JPP	<0.18*	●	●
		VPET0802018MFL-JPP	<0.18*	●	●
		VPET080202MFR-JPP	<0.2*	●	●
		VPET080202MFL-JPP	<0.2*	●	●
		VPET1103008MFR-JPP	<0.08*	●	●
		VPET1103008MFL-JPP	<0.08*	●	●
		VPET110301MFR-JPP	<0.1*	●	●
		VPET110301MFL-JPP	<0.1*	●	●
		VPET1103018MFR-JPP	<0.18*	●	●
		VPET1103018MFL-JPP	<0.18*	●	●
		VPET110302MFR-JPP	<0.2*	●	●
		VPET110302MFL-JPP	<0.2*	●	●
	JRP	VPET0802008MFR-JRP	<0.08*	●	●
		VPET0802008MFL-JRP	<0.08*	●	●
		VPET080201MFR-JRP	<0.1*	●	●
		VPET080201MFL-JRP	<0.1*	●	●
		VPET0802018MFR-JRP	<0.18*	●	●
		VPET0802018MFL-JRP	<0.18*	●	●
		VPET080202MFR-JRP	<0.2*	●	●
		VPET080202MFL-JRP	<0.2*	●	●
		VPET1103008MFR-JRP	<0.08*	●	●
		VPET1103008MFL-JRP	<0.08*	●	●
		VPET110301MFR-JRP	<0.1*	●	●
		VPET110301MFL-JRP	<0.1*	●	●
		VPET1103018MFR-JRP	<0.18*	●	●
		VPET1103018MFL-JRP	<0.18*	●	●
		VPET110302MFR-JRP	<0.2*	●	●
		VPET110302MFL-JRP	<0.2*	●	●
For external turning on small lathes (Sharp edge)	JSP	VPET0802008MFN-JSP	<0.08*	●	●
		VPET080201MFN-JSP	<0.1*	●	●
		VPET0802018MFN-JSP	<0.18*	●	●
		VPET080202MFN-JSP	<0.2*	●	●
		VPET1103008MFN-JSP	<0.08*	●	●
		VPET110301MFN-JSP	<0.1*	●	●
		VPET1103018MFN-JSP	<0.18*	●	●
		VPET110302MFN-JSP	<0.2*	●	●

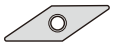
* Corner radius has minus tolerance.

● : Line up

TurnLine - Insert

● : Continuous cutting
ᑕ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE DOUBLE-SIDED



Rhombic, 35° with hole

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Coated SH725
Finishing (Sharp edge)	JRP	VXGU09T201MFRE-JRP	<0.1*	●
		VXGU09T201MFLE-JRP	<0.1*	●
		VXGU09T202MFRE-JRP	<0.2*	●
		VXGU09T202MFLE-JRP	<0.2*	●

* Corner radius has minus tolerance.

● : Line up

POSITIVE TYPE

Trigon, 80° with hole Positive 11°

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Coated T9115	Coated T9125	Coated AH120
Heavy cutting	ML	WPMT090725ZPR-ML	2.5	●	●	●
		WPMT090725ZPL-ML	2.5	●	●	●

● : Line up

Reference pages

VXGU... : External toolholders → **B192 - B194, B218**

WPMT... : External toolholders → **B257**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Trigon, 80° with hole Positive 5°

		GH110	SH725	SH730	NS9530	TH10	UX30
P	Steel	●	●◐	●◐	●◐	●	◐
M	Stainless	●	●◐	●◐		●	◐
K	Cast iron	●			●◐	●	
N	Non-ferrous					●	
S	Superalloys	●		●◐			
H	Hard materials						

Application	Chipbreaker	Designation	Corner radius	GH110 (Coated)	SH725 (Coated)	SH730 (Coated)	NS9530 (Cermet)	TH10 (Uncoated)	UX30 (Uncoated)
Finishing	W08	WBGT030100R-W08	0.03			●			
		WBGT030100L-W08	0.03			●	●	●	●
		WBGT030101R-W08	0.1			●			
		WBGT030101L-W08	0.1			●		●	
		WBGT030102R-W08	0.2			●			
		WBGT030102L-W08	0.2	●		●	●	●	●
		WBGT030104R-W08	0.4			●			
		WBGT030104L-W08	0.4	●		●	●	●	●
Finishing (Sharp edge)	W08	WBGT030100FL-W08	0.03		●				
		WBGT030100FR-W08	0.03		●				
		WBGT030101FL-W08	0.1		●				
		WBGT030101FR-W08	0.1		●				
		WBGT030102FL-W08	0.2		●				
		WBGT030102FR-W08	0.2		●				
		WBGT030104FL-W08	0.4		●				
		WBGT030104FR-W08	0.4		●				
	W11	WBGT060102L-W11	0.2	●			●		
		WBGT060104L-W11	0.4				●		
		WBGT080202L-W11	0.2				●		
		WBGT080204L-W11	0.4				●		
For internal turning on small lathes	JS	WBGT030101R-JS	0.1			●			
		WBGT030101L-JS	0.1			●			
		WBGT030102R-JS	0.2			●			
		WBGT030102L-JS	0.2			●			
		WBGT030104R-JS	0.4			●			
		WBGT030104L-JS	0.4			●			
For internal turning on small lathes (Sharp edge)	JS	WBGT030101FL-JS	0.1		●				
		WBGT030101FR-JS	0.1		●				
		WBGT030102FL-JS	0.2		●				
		WBGT030102FR-JS	0.2		●				
		WBGT030104FL-JS	0.4		●				
		WBGT030104FR-JS	0.4		●				

● : Line up

Reference pages

Internal toolholders → B286 Top-borer tools → F173 -

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE DOUBLE-SIDED

Trigon, 80° with hole

		AH725	SH725	GT9530	NS9530	KS05F
		Coated		Coated cermet	Cermet	Uncoated
P	Steel	◐	●◐	●◐	●◐	
M	Stainless	◐	●◐			
K	Cast iron	◐		●◐	●◐	●
N	Non-ferrous					●
S	Superalloys	●				●
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	AH725	SH725	GT9530	NS9530	KS05F
Finishing to medium cutting (Sharp edge)	JTS	WXGU040301MFR-JTS	<0.1*		●			
		WXGU040301MFL-JTS	<0.1*		●			
		WXGU040302MFR-JTS	<0.2*		●			
		WXGU040302MFL-JTS	<0.2*		●			
Finishing to medium cutting	JTS	WXGU040301MR-JTS	<0.1*	●				
		WXGU040301ML-JTS	<0.1*	●				
		WXGU040302MR-JTS	<0.2*	●				
		WXGU040302ML-JTS	<0.2*	●				
Finishing (Low cutting force) (Sharp edge)	JSS	WXGU040301MFR-JSS	<0.1*		●			
		WXGU040301MFL-JSS	<0.1*		●			
		WXGU040302MFR-JSS	<0.2*		●			
		WXGU040302MFL-JSS	<0.2*		●			
Finishing (Low cutting force)	JSS	WXGU040301MR-JSS	<0.1*	●				
		WXGU040301ML-JSS	<0.1*	●				
		WXGU040302MR-JSS	<0.2*	●				
		WXGU040302ML-JSS	<0.2*	●				
Finishing to medium cutting	TS	WXGU040302R-TS	0.2	●		●	●	●
		WXGU040302L-TS	0.2	●		●	●	●
		WXGU040304R-TS	0.4	●		●	●	●
		WXGU040304L-TS	0.4	●		●	●	●
		WXGU040308R-TS	0.8	●		●	●	●
		WXGU040308L-TS	0.8	●		●	●	●
Finishing (Wiper)	TSW	WXGU040304R-TSW	0.4	●		●	●	
		WXGU040304L-TSW	0.4	●		●	●	
		WXGU040308R-TSW	0.8	●		●	●	
		WXGU040308L-TSW	0.8	●		●	●	
Finishing (Low cutting force)	SS	WXGU040302R-SS	0.2	●		●	●	●
		WXGU040302L-SS	0.2	●		●	●	●
		WXGU040304R-SS	0.4	●		●	●	●
		WXGU040304L-SS	0.4	●		●	●	●

* Corner radius has minus tolerance.

● : Line up

Reference pages

External toolholders → B188, B189, B217
Internal toolholders → B268

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Rhombic, 25° with hole Positive 7°

P	Steel	◐✠	●◐
M	Stainless		
K	Cast iron		●◐
N	Non-ferrous		
S	Superalloys		
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	Coated T9125	Coated cermet GT9530
Finishing to medium cutting	ZF	YWMT11T202-ZF	0.2	●	●
		YWMT11T204-ZF	0.4	●	●
		YWMT16T302-ZF	0.2	●	●
		YWMT16T304-ZF	0.4	●	●
		YWMT16T308-ZF	0.8	●	●
	ZM	YWMT11T204-ZM	0.4	●	●
		YWMT16T304-ZM	0.4	●	●
		YWMT16T308-ZM	0.8	●	●

● : Line up

Reference pages

External toolholders → B220, B221
Internal toolholders → B300

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Front turning Insert

		J740	TH10
P	Steel	●ⓒ	●
M	Stainless	●ⓒ	●
K	Cast iron		●
N	Non-ferrous		●
S	Superalloys		
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	Coated J740	Uncoated TH10
Front turning	-	JXFR8000F	0.03	●	●
		JXFR8010F	0.1	●	●

Reverse turning Insert

		J740	TH10
P	Steel	●ⓒ	●
M	Stainless	●ⓒ	●
K	Cast iron		●
N	Non-ferrous		●
S	Superalloys		
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	Coated J740	Uncoated TH10
Reverse turning	-	JXRR8000F	0.03	●	●
		JXRR8010F	0.1	●	●

Back turning Insert

		J740	TH10
P	Steel	●ⓒ	●
M	Stainless	●ⓒ	●
K	Cast iron		●
N	Non-ferrous		●
S	Superalloys		
H	Hard materials		

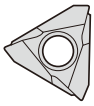
Application	Chipbreaker	Designation	Corner radius	Coated J740	Uncoated TH10
Back turning	-	JXBR8000F	0.03	●	●
		JXBL8000F	0.03	●	●
		JXBR8005F	0.05	●	●
		JXBL8005F	0.05	●	●
		JXBR8005	0.05	●	
		JXBL8005	0.05	●	
		JXBR8010F	0.1	●	●
		JXBL8010F	0.1	●	●
		JXBR8010	0.1	●	
		JXBL8010	0.1	●	
		JXBR8015F	0.15	●	●
		JXBL8015F	0.15	●	●
		JXBR8015	0.15	●	
		JXBL8015	0.15	●	

● : Line up

TurnLine - Insert

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE



Back turning Insert

P	Steel	●ⓒ	●ⓒ				●ⓒ				●ⓒ				●																	
M	Stainless	●ⓒ	●ⓒ												●																	
K	Cast iron						●ⓒ				●ⓒ				●																	
N	Non-ferrous														●																	
S	Superalloys																															
H	Hard materials																															

Application	Chipbreaker	Designation	Corner radius	Coated					Coated cermet					Cermet					Uncoated				
				SH725	J740				J9530					NS9530					TH10				
Back turning	-	JTBR3000F	0.03	●	●														●				
		JTBL3000F	0.03	●	●														●				
		JTBR3005F	0.05	●	●														●				
		JTBL3005F	0.05	●	●														●				
		JTBR3005	0.05		●				●														
		JTBL3005	0.05		●																		
		JTBR3010F	0.1	●	●									●					●				
		JTBL3010F	0.1	●	●									●					●				
		JTBR3010	0.1		●				●														
		JTBL3010	0.1		●																		
		JTBR3015F	0.15	●	●																		
		JTBL3015F	0.15	●																			

Back turning Insert

P	Steel	●ⓒ	●ⓒ				●ⓒ				●ⓒ				●																	
M	Stainless	●ⓒ	●ⓒ												●																	
K	Cast iron						●ⓒ				●ⓒ				●																	
N	Non-ferrous														●																	
S	Superalloys																															
H	Hard materials																															

Application	Chipbreaker	Designation	Corner radius	Coated					Coated cermet					Cermet					Uncoated				
				SH725	J740				J9530					NS9530					TH10				
Back turning	-	J10ER005BF	0.05	●	●									●					●				
		J10EL005BF	0.05	●	●														●				
		J10ER005B	0.05		●				●														
		J10EL005B	0.05		●																		
		J10ER010BF	0.1	●	●									●					●				
		J10EL010BF	0.1	●	●														●				
		J10ER010B	0.1		●				●														
		J10EL010B	0.1		●																		
		J10EL015BF	0.15	●																			
		J10ER015BF	0.15	●																			

● : Line up

Reference pages

JXF..., JXR... : J series toolholders → **B345**

JXB... : J series toolholders → **B346**

JTB... : J series toolholders → **B347**

J10E...: J series toolholders → **B349**

TurnLine - Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE

Back turning Insert

P	Steel	●
M	Stainless	●
K	Cast iron	●
N	Non-ferrous	●
S	Superalloys	
H	Hard materials	

Application	Chipbreaker	Designation	Corner radius	Uncoated TH10
Back turning	-	10ER100B	0.03	●
		10EL100B	0.03	●
		10ER150B	0.03	●
		10EL150B	0.03	●
		10ER300	-	●
		10EL300	-	●

● : Line up

Reference pages

J series toolholders → B349

MEMO

TurnLine - Designation System for T-CBN (PCBN) Inserts

Multi-Corner type

2 QP - CNGA120404 -L

① ② ③ ④

① Number of corners

② Type

QP	CBN Inserts

③ ISO symbol

④ Special feature & chipbreaker

Without	Standard honing
-L	Light honing angle Wear resistance priority
-H	Heavy honing angle Impact resistance priority
W	Wiper type insert
W□	Round wiper type insert
F	Sharp edge
-HF	With chipbreaker
-HM	With chipbreaker

Multi-Corner type (10 inserts packing)

T 2 QP - CNGA120408

①

① "T" shows 10 inserts packing.

For general turning

TNGA160402 - QBN

① ②

① ISO symbol

② CBN inserts

T-CBN (PCBN tipped) grooving Inserts

XG R 63 10 S - QBN

① ② ③ ④ ⑤

① For grooving tool GX-type

② Hand of Insert

L	Left
R	Right

③ Groove width (mm)

10	1.0
15	1.5

④ Corner radius: r_ε (mm)

S	0.2

⑤ CBN inserts

For TUNGCUT

S G N 200 - 020

① ② ③ ④ ⑤

① Number of edge

S	Single corner

② Application

G	Grooving

③ For use

N	Non breaker

④ Groove width (mm)

200	2.0

⑤ Corner radius: r_ε (mm)

020	0.2

TurnLine - Designation System for T-DIA (PCD) Inserts

Inserts for turning

TPGW110204 - DIA

❶ ISO symbol

❷ PCD inserts

TurnLine - T-CBN Inserts GNGA type

GNGA

Negative relief angle, G class, rhombic insert with 70° corner angle .

New shape CBN insert for general turning

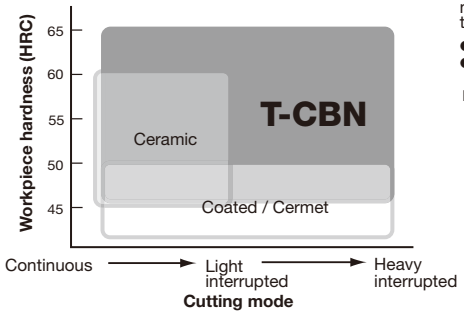
- 70° corner angle makes large clearance between insert and workpiece.
- Large clearance reduces the cutting force and wear on edge, and provides smooth chip flow to prevent scratches on machined surface by chips.

High versatility

- Standard toolholder for ISO CN**1204 insert is available.
- No need offsets compared to CN**1204 insert, due to same geometry of cutting edge position.
- Double sided insert with 2 cutting edges.
- 4 types of CBN grades are available for machining of a wide range of materials.

H T-CBN series for machining hardened steels and hard materials

Application area



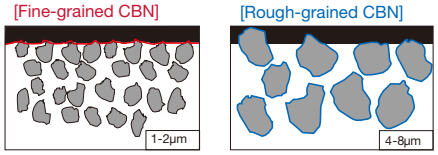
Necessity of PCBN grades

The condition necessary to cut the work

Material is:
Hardness of tool ≥ Hardness of tool X 3

- Hardened steel (60HRC) → 700 Hv
- Cemented carbide → 1600 Hv
- PCBN (BX360) → 3300 Hv

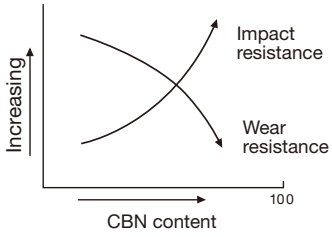
Effects of grain size of CBN on surface roughness and cutting speed



Fine grained PCBN provided with sharp cutting edge.
Good surface roughness

Rough grained PCBN. CBN particles are hold firmly.
Allows high speed machining

Features of CBN grades for machining hardened steel and other hard materials



Fewer CBN content ⇨ Increasing wear resistance
Much CBN content ⇨ Increasing impact resistance

Basic selection of T-CBN grades in machining of hardened steel and hard material

Coated T-CBN grades

BXM10 For high speeds cutting

BXM20 For general purpose, more than *Vc* = 180 m/min

BXA20 For general purpose, less than *Vc* = 180 m/min

Uncoated T-CBN grades

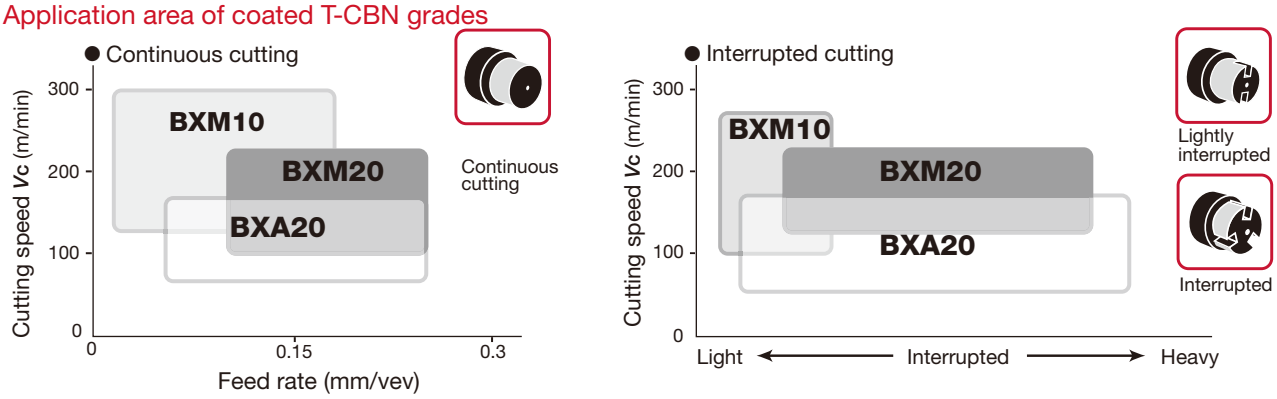
BX310 For high speeds / Priority on wear resistance in continuous cutting

BX330 For medium speeds / Priority on surface quality

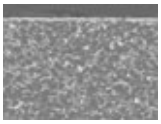
BX360 For low to medium speeds / General purpose grade, excels in impact resistance

BX380 For low to medium speeds / Priority on impact resistance in heavily interrupted cutting

Application area of coated T-CBN grades



Effects of Coated T-CBN grades

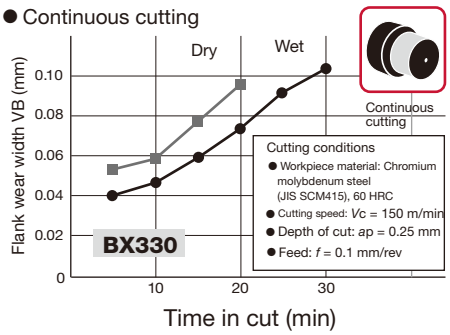


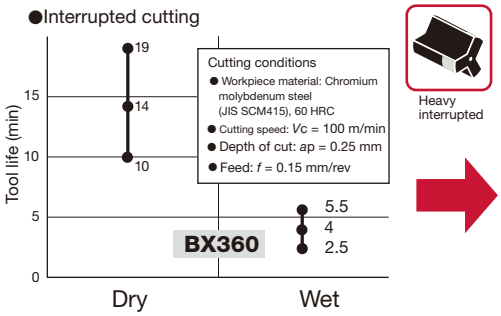
Coated on hard CBN
Hardness:
CBN > Coating layer

- **Protect CBN from oxidation wear**
  Since the coating layer intercepts air, oxidation wear of CBN can be prevented.
- **Peeling of coating layer can be protected**
  Hard and deformation resistant CBN is excellent substrate material.

→ **Improved resistance to flank wear**

Effects of coolant in machining of hardened steel

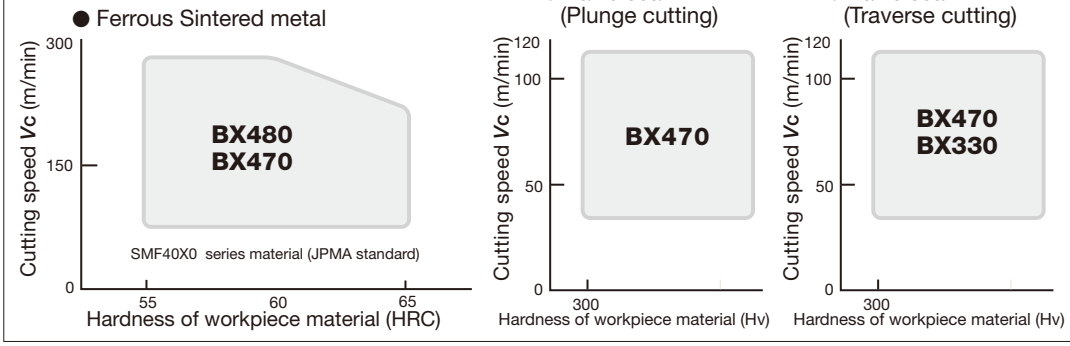




- In continuous cutting, wet cutting is superior to dry cutting in tool life for wear.
- In interrupted cutting, dry cutting is superior to wet cutting in tool life for fracture.

T-CBN series for machining sintered metals

Application area

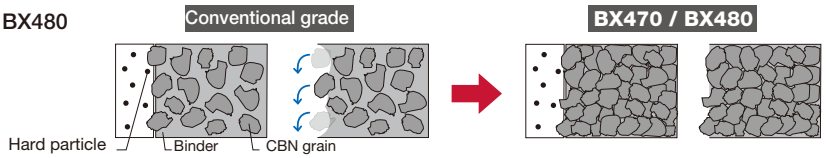


BX470
Priority on burr prevention and surface finish

BX480
Priority on wear resistance and versatility

Features of BX470 and BX480

●Machining of Sintered metal including hard particles



Binder phase are selectively worn away by hard particles.
⇨ Wear proceeds with falling-out of CBN grains,

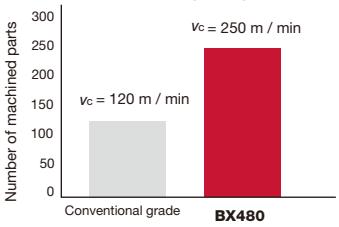
By increasing CBN content, wear of binder layer is suppressed.
⇨ Improved wear resistance

●Features of **BX470** and **BX480**

CBN content: 95 vol%
Hv = 4100 ~ 4300

The world highest CBN content as a commercially available material.

■ BX480 (Facing of gears)

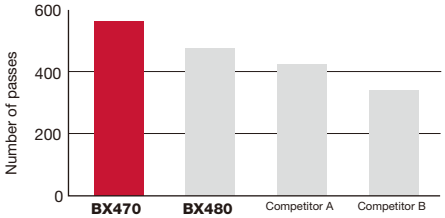


Cutting conditions
- Workpiece material: Sintered metal (> HRA60)
- Insert: DCMW11T308
- Depth of cut: ap = 0.2 ~ 0.5 mm
- Feed : f = 0.07 mm/rev
- Coolant : Water soluble type
- Interrupted cutting

■ BX470/BX480 Tool failure after machining Sintered metal

Cutting conditions
- Workpiece material: Sintered metal (> HRA60), Nitriding, Hard particles included
- Cutting speed: Vc = 110 m/min
- Depth of cut: ap = 0.15 mm
- Feed: f = 0.1 mm/rev
- Coolant : Water soluble type
- Interrupted cutting

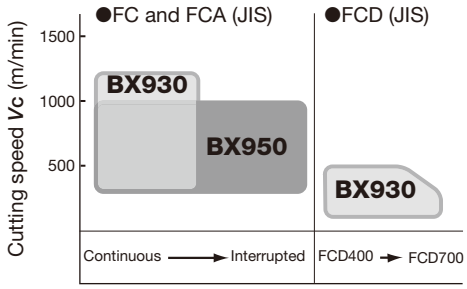
■ BX470 (Tool life criterion: Burr occurrence)



Cutting conditions
- Workpiece material: Ferrous Sintered metal
- Cutting speed: Vc = 100 m/min
- Depth of cut: ap = 0.15 ~ 0.3 mm
- Feed: f = 0.07 ~ 0.25 mm/rev
- Dry and interrupted cutting

K T-CBN series for machining grey and ductile cast irons

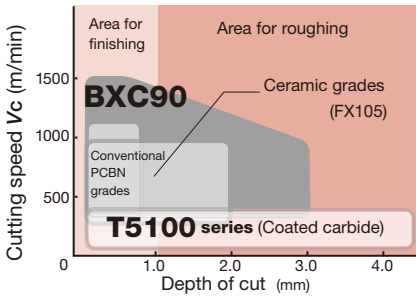
Application area



BX930
- General purpose, first choice grade.
- Dedicated grade for machining ductile Cast iron

BX950
- Suitable for interrupted machining
- Excels in impact resistance

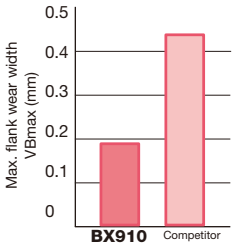
● Solid coated T-CBN grades



BXC90
- One-piece solid structure
- Applicable for small to large depths of cut

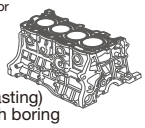
■ Machining of cylinder liners (Machining example of **BX910**)

●Wear width after machining 120 pcs.



●Tool failure after machining 120 pcs.

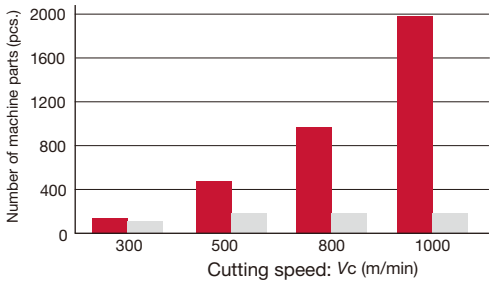
Cutting conditions



- Workpiece material: Cylinder liner (Spin casting) Machining type: Finish boring
- Cutting speed: Vc = 1,000 m/min
- Machine: Special purpose machine
- Coolant: Wet

BX910 For machining cylinder liners

■ Tool life comparison in machining of disc brakes



BXC90
Ceramic

Cutting conditions
- Workpiece material: Disc rotor (JIS FC250)
- Insert: SNGN 120412 BXC90
- Depth of cut: ap = 0.7 mm
- Feed: f = 0.35 mm/rev
- Coolant: Dry
- Tool life criterion: Conditions of finished surface

TurnLine - T-CBN Series

Honing specifications

● T-CBN inserts with special honing specifications are made to order. Refer to the following description.

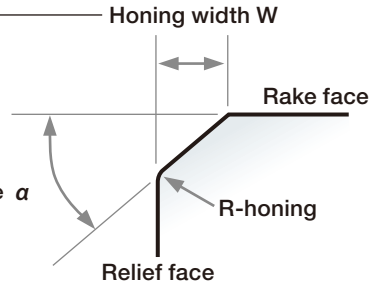
Designation system for honing

Example:
Honing width: 0.15 mm
Honing angle: -30°
With R-honing

S	0	1	5	3	0

Shape — Honing width (W) — Honing angle (α)

T ··· Chamfered honing
S ··· Chamfered + R-honing
E ··· R-honing alone
F ··· Sharp edge



● Symbol

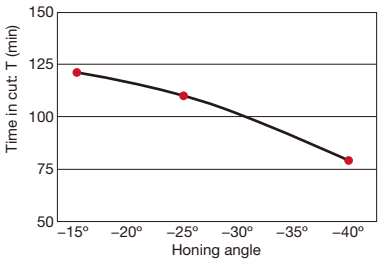
W	Amount of honing (mm)
005	0.05
010	0.10
013	0.13
015	0.15
020	0.20

α	Honing angle
10°	-10°
15°	-15°
20°	-20°
25°	-25°
30°	-30°
35°	-35°
40°	-40°

● Honing specification can be selected in combination of items described here.
● Inserts with "R" honing alone are available.

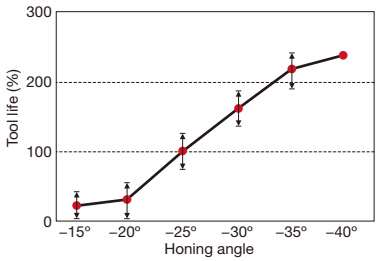
Honing specifications for machining hardened steels and other hard materials
Standard honing: -25° + R-honing
"-L" honing : -15° + R-honing
"-H" honing : -35° + R-honing

● Relationship between honing angle and tool life in continuous turning



Cutting conditions
Workpiece material:
Chromium molybdenum steel (JIS SCM415), 60 HRC
Insert: TNGN160404 BX360
Cutting speed: *Vc* = 100 m/min
Feed: *f* = 0.15 mm/rev
Depth of cut: *ap* = 0.25 mm
Coolant: Dry
Tool life criterion: VBmax = 0.15 mm
Honing: -□□°+ R-honing

● Relationship between honing angle and tool life in interrupted turning



Cutting conditions
Workpiece material:
Chromium molybdenum steel (JIS SCM415), 60 HRC
Insert: TNGN160404 BX360
Cutting speed: *Vc* = 100 m/min
Feed: *f* = 0.15 mm/rev
Depth of cut: *ap* = 0.25 mm
Coolant: Dry
Tool life criterion: Fracture
Honing: -□□°+ R-honing

● General rule
- For continuous cutting, small honing angle is favorable to minimize wear in general.
- For interrupted cutting, large honing angle is favorable to minimize fracture in general.

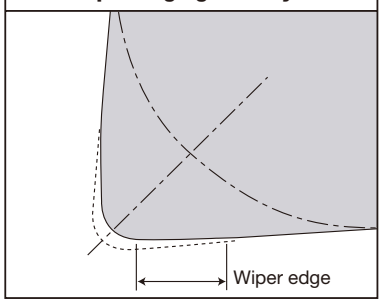
● Standard honing specifications

Grades	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
Negative insert	S01325	S01325	S01325	S01325	S01325	S01325	S01325	S01325	T01315	S01325	S01315	S01315	S01325
Positive insert	S01325	S01325	S01325	–	S00515	S00515	S00515	–	T01315	–	S01315	S00515	S00515

Wiper insert

● A finishing edge (wiper edge) is formed at the point of intersection between corner radius and straight cutting edge.

Wiper edge geometry

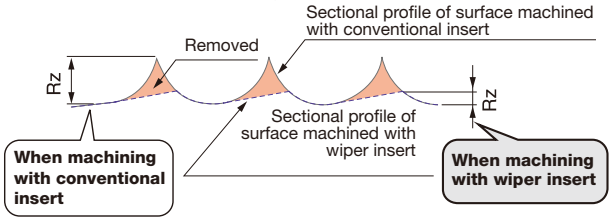


■ Effect of wiper edge

● Doubles the productivity → Reduced machining time
The wiper edge can double the feed rate and moreover does not deteriorate the surface roughness. (Note: Feed rate: *f* < 0.3 mm/rev)

● Superior surface roughness → By integrating roughing and finishing into one process, productivity can be increased.
Compared with conventional inserts only with corner radius, surface roughness can be improved with the wiper edge.

■ Profiles of surface roughness



■ Recommended toolholders for wiper-edged inserts

	2QP-CNGA1204**WL	3QP-WNGA080408WL	2QP-DNGA1504**WJ	3QP-TNGA1604**WG
End cutting angle	95°		93°	91°
External toolholder	ACLNR/L**12-A	AWLNR/L**08-A	ADJNR/L**15-A	ATGNR/L**16-A ATFNR/L**16-A
	DCLNR/L**12	DWLNR/L**08	DDJNR/L**15	DTGNR/L**16 DTFNR/L**16
Internal toolholder	A**-ACLNR/L12-D...	A**-AWLNR/L08-D...	A**-ADUNR/L15-D...	A**-ATFNR/L16-D...

TurnLine - CBN Insert

Negative insert · Multi-corner type

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX930	BX950
P Steel												
M Stainless												
K Cast iron									●◐	✠	●◐	◐
N Non-ferrous												
S Superalloys												●
H Hard materials	●	●◐	●◐	✠	●	●◐	●◐	✠				
Sintered metal									●◐	◐✠		

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX930	BX950
Sharp edge		2QP-CNGA120404F	0.4	2	2.3									●			
		2QP-CNGA120408F	0.8	2	2.2									●			
General purpose		2QP-CNGA120404	0.4	2	2.3	●	●	●		●	●	●	●	●	●	●	●
		2QP-CNGA120408	0.8	2	2.2	●	●	●		●	●	●	●	●	●	●	●
		2QP-CNGA120412	1.2	2	2.4		●	●		●	●	●	●	●	●	●	●
Light honing		2QP-CNGA120404-L	0.4	2	2.3	●	●				●						
		2QP-CNGA120408-L	0.8	2	2.2	●	●				●						
		2QP-CNGA120412-L	1.2	2	2.4	●	●				●						
Heavy honing		2QP-CNGA120404-H	0.4	2	2.3		●					●	●				
		2QP-CNGA120408-H	0.8	2	2.2		●	●				●	●				
		2QP-CNGA120412-H	1.2	2	2.4		●					●	●				
Wiper edge		2QP-CNGA120404WL	0.4	2	2.3	●	●										
		2QP-CNGA120408WL	0.8	2	2.2	●	●	●									
		2QP-CNGA120412WL	1.2	2	2.4	●	●										
		2QP-CNMA120404W	0.4	2	2.3						●						
		2QP-CNMA120408W	0.8	2	2.2						●						
		2QP-CNMA120412W	1.2	2	2.4						●						
General purpose		T2QP-CNGA120404	0.4	2	2.3							●					
		T2QP-CNGA120408	0.8	2	2.2							●					
General purpose		4QP-CNGA120404	0.4	4	2.3				●								
		4QP-CNGA120408	0.8	4	2.2				●								
		4QP-CNGA120412	1.2	4	2.4				●								
Wiper edge		4QP-CNMA120404W	0.4	4	2.3				●								
		4QP-CNMA120408W	0.8	4	2.2				●								
		4QP-CNMA120412W	1.2	4	2.4				●								
General purpose Nose angle 70°		*2QP-GNGA120404	0.4	2	2.3		●	●				●					
		*2QP-GNGA120408	0.8	2	2.2		●	●				●		●		●	
		*2QP-GNGA120412	1.2	2	2.4		●	●				●		●		●	
General purpose		2QP-DNGA150404	0.4	2	2.5	●	●			●	●	●	●	●	●	●	●
		2QP-DNGA150408	0.8	2	2.1	●	●	●		●	●	●	●	●	●	●	●
		2QP-DNGA150412	1.2	2	2.0	●	●			●	●	●	●		●	●	●
Light honing		2QP-DNGA150404-L	0.4	2	2.5	●	●				●						
		2QP-DNGA150408-L	0.8	2	2.1	●	●				●						
		2QP-DNGA150412-L	1.2	2	2.0		●				●						
Heavy honing		2QP-DNGA150404-H	0.4	2	2.5		●					●	●				
		2QP-DNGA150408-H	0.8	2	2.1		●	●				●	●				
		2QP-DNGA150412-H	1.2	2	2.0		●					●	●				
Wiper edge		2QP-DNGA150404WJ	0.4	2	2.5	●	●	●									
		2QP-DNGA150408WJ	0.8	2	2.1	●	●	●									
General purpose		2QP-DNGA150604	0.4	2	2.5	●	●										
		2QP-DNGA150608	0.8	2	2.1	●	●	●									
		2QP-DNGA150612	1.2	2	2.0	●	●										

Note:
Letter "T" in the first position of designation shows that the standard packing quantity is 10 pieces.
Recommended toolholders for wiper inserts, W, WL, or WJ are shown on page **B162**

● : Line up

* Tungaloy's original shape

Reference pages

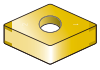
External toolholders → **B204 -**
Internal toolholders → **B292 -**
J series toolholders → **B342 -**
TungCap → **B215 -, B317, F006 -**
PINZBOHR® → **F136 - F151**
Cartridges → **F152 -**

TurnLine - CBN Insert

Negative insert · Multi-corner type

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

		BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
P	Steel													
M	Stainless													
K	Cast iron									●◐	✠	●	●◐	◐
N	Non-ferrous													
S	Superalloys													●
H	Hard materials	●	◐	◐	✠	●	◐	◐	✠					
	Sintered metal									●◐	◐✠			

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX910	BX930	BX950
General purpose		4QP-DNGA150404	0.4	4	2.5				●									
		4QP-DNGA150408	0.8	4	2.1				●									
		4QP-DNGA150412	1.2	4	2.0				●									
General purpose		2QP-SNGA120404	0.4	2	2.4		●			●	●	●	●		●		●	●
		2QP-SNGA120408	0.8	2	2.4		●			●	●	●	●		●		●	●
		2QP-SNGA120412	1.2	2	2.4		●			●	●	●	●		●		●	●
Light honing		2QP-SNGA120404-L	0.4	2	2.4						●							
		2QP-SNGA120408-L	0.8	2	2.4		●				●							
		2QP-SNGA120412-L	1.2	2	2.4		●				●							
Heavy honing		2QP-SNGA120404-H	0.4	2	2.4							●	●					
		2QP-SNGA120408-H	0.8	2	2.4		●					●	●					
		2QP-SNGA120412-H	1.2	2	2.4		●					●	●					
General purpose		4QP-SNGA120404	0.4	4	2.4				●									
		4QP-SNGA120408	0.8	4	2.4				●									
		4QP-SNGA120412	1.2	4	2.4				●									
General purpose		2QP-SNGN090308	0.8	2	2.4											●		
		2QP-SNGN090312	1.2	2	2.4											●		
Sharp edge		3QP-TNGA160404F	0.4	3	2.2									●				
		3QP-TNGA160408F	0.8	3	1.9									●				
General purpose		3QP-TNGA160404	0.4	3	2.2	●	●	●		●	●	●	●	●	●		●	●
		3QP-TNGA160408	0.8	3	1.9	●	●	●		●	●	●	●	●	●		●	●
		3QP-TNGA160412	1.2	3	2.4	●	●	●		●	●	●	●	●	●		●	●
Light honing		3QP-TNGA160404-L	0.4	3	2.2	●	●				●							
		3QP-TNGA160408-L	0.8	3	1.9	●	●				●							
		3QP-TNGA160412-L	1.2	3	2.4	●	●				●							
Heavy honing		3QP-TNGA160404-H	0.4	3	2.2		●					●	●					
		3QP-TNGA160408-H	0.8	3	1.9		●	●				●	●					
		3QP-TNGA160412-H	1.2	3	2.4		●	●				●	●					
Wiper edge		3QP-TNGA160404WG	0.4	3	2.2		●	●										
		3QP-TNGA160408WG	0.8	3	1.9	●	●											
General purpose		T3QP-TNGA160404	0.4	3	2.2							●						
		T3QP-TNGA160408	0.8	3	1.9							●						
General purpose		6QP-TNGA160404	0.4	6	2.2				●									
		6QP-TNGA160408	0.8	6	1.9				●									
		6QP-TNGA160412	1.2	6	2.4				●									

Note:
Letter "T" in the first position of designation shows that the standard packing quantity is 10 pieces.
Recommended toolholders for wiper inserts, WG are shown on page **B162**

● : Line up

Reference pages

External toolholders → **B205 -**
Internal toolholders → **B293 -**
J series toolholders → **B342 -**
TungCap → **B215 -, F006 -**
Cartridges → **F152 -**

TurnLine - CBN Insert

Negative insert · Multi-corner type

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX930	BX950
P Steel												
M Stainless												
K Cast iron									●◐	✠	●◐	◐
N Non-ferrous												
S Superalloys												●
H Hard materials	●	●◐	●◐	✠	●	●◐	●◐	✠				
Sintered metal									●◐	◐✠		

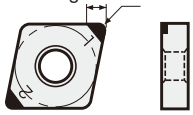
Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM10	BXM20	BXA20	BXC50	BX310	BX330	BX360	BX380	BX470	BX480	BX930	BX950
General purpose		**2QP-VNGA160404**	0.4	2	3.1	●	●	●		●	●	●	●	●	●	●	●
		2QP-VNGA160408	0.8	2	2.2	●	●	●		●	●	●	●	●	●	●	●
		2QP-VNGA160412	1.2	2	3.0		●										
Light honing		**2QP-VNGA160404-L**	0.4	2	3.1	●	●				●						
		2QP-VNGA160408-L	0.8	2	2.2	●	●				●						
Heavy honing		**2QP-VNGA160404-H**	0.4	2	3.1		●	●				●	●				
		2QP-VNGA160408-H	0.8	2	2.2		●	●				●	●				
General purpose		**4QP-VNGA160404**	0.4	4	3.1				●								
		4QP-VNGA160408	0.8	4	2.2				●								
General purpose		**3QP-WNGA080408**	0.8	3	2.2	●	●	●		●	●	●	●		●	●	●
Wiper edge		**3QP-WNGA080408WL**	0.8	3	2.2	●	●										
General purpose		**6QP-WNGA080408**	0.8	6	2.2				●								

Recommended toolholders for wiper inserts, WL are shown on page **B162**

● : Line up

Negative insert

CBN Length Corner radius



Reference pages

External toolholders → **B204 -** Internal toolholders → **B293 -**
TungCap → **B215 -, F006 -**

TurnLine - CBN Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

Negative insert · Multi-corner type Hard Breaker (T-CBN insert with chipbreaker)

		BXM20	BXA20
P	Steel		
M	Stainless		
K	Cast iron		
N	Non-ferrous		
S	Superalloys		
H	Hard materials	●◐	●◐

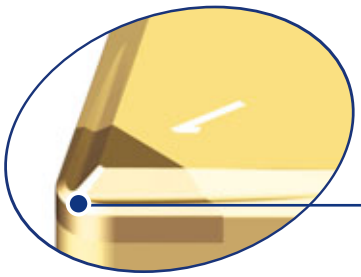
Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM20	BXA20
With chipbreaker		2QP-CNGM120408-HF	0.8	2	2.2	●	
		2QP-CNGM120412-HF	1.2	2	2.4	●	
		2QP-DNGM150408-HF	0.8	2	2.1	●	
		2QP-DNGM150412-HF	1.2	2	2.0	●	
		3QP-TNGM160408-HF	0.8	3	1.9	●	
		3QP-TNGM160412-HF	1.2	3	2.4	●	
		2QP-VNGM160408-HF	0.8	2	2.2	●	
		2QP-CNGM120408-HM	0.8	2	2.2	●	●
		2QP-CNGM120412-HM	1.2	2	2.4	●	●
		2QP-DNGM150408-HM	0.8	2	2.1	●	
		2QP-DNGM150412-HM	1.2	2	2.0	●	
		3QP-TNGM160408-HM	0.8	3	1.9	●	
		3QP-TNGM160412-HM	1.2	3	2.2	●	
		2QP-VNGM160408-HM	0.8	2	2.4	●	

● : Line up

"Hard Breakers" for removing the carburized layer

Two types of chipbreaker provide excellent chip control in a wide application range !

HF type — For finishing

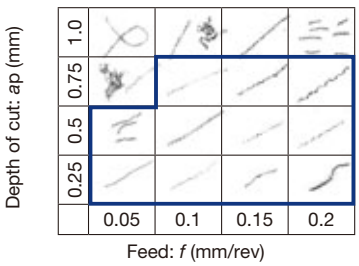


Single sided CBN insert provides higher stability in heavy machining.

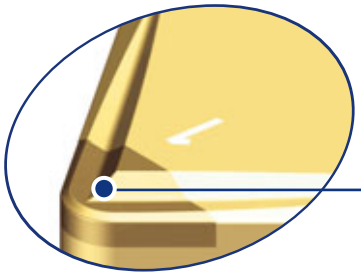
Excellent chip control in small DoC due to the high functional nose. Delivers exceptional surface finishes.

■ Example of chips

● **HF type**



HM type — For medium cutting

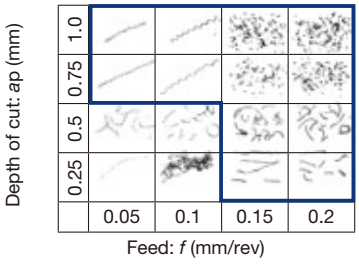


Single sided CBN insert provides higher stability in heavy machining.

Providing ideal chip control in large DoC by the well designed chipbreaker. Suitable for medium cutting or roughing.

■ Example of chips

● **HM type**

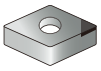


TurnLine - CBN Insert

Negative insert · One-corner type

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BX360
						●◐
General purpose		CNGA120402-QBN	0.2	1	4.1	●
		CNGA120404-QBN	0.4	1	4.0	●
		CNGA120408-QBN	0.8	1	3.9	●
		CNGA120412-QBN	1.2	1	3.9	●
		DNGA150402-QBN	0.2	1	4.3	●
		DNGA150404-QBN	0.4	1	4.1	●
		DNGA150408-QBN	0.8	1	3.8	●
		DNGA150412-QBN	1.2	1	3.4	●
		SNGA120402-QBN	0.2	1	4.1	●
		SNGA120404-QBN	0.4	1	4.1	●
		SNGA120408-QBN	0.8	1	4.1	●
		SNGA120412-QBN	1.2	1	4.1	●
		TNGA160402-QBN	0.2	1	4.4	●
		TNGA160404-QBN	0.4	1	4.2	●
		TNGA160408-QBN	0.8	1	4.0	●
		TNGA160412-QBN	1.2	1	3.7	●

● : Line up

Reference pages

External toolholders	→ B204 -	Internal toolholders	→ B292 -
J series toolholders	→ B342 - B344	TungCap	→ B215 -, B317, F006 -
PINZBOHR®	→ F136 - F151	Cartridges	→ F152 -

TurnLine - CBN Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

Positive insert · Multi-corner type (G class)

			P	Steel												
			M	Stainless												
			K	Cast iron				●◐	●							
			N	Non-ferrous												
			S	Superalloys												
			H	Hard materials	●	●◐	●◐									
				Sintered metal				●◐								
Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM10	BXM20	BXA20	BX470	BX910						
General purpose		2QP-CCGW060202	0.2	2	2.3	●	●									
		2QP-CCGW060204	0.4	2	2.3	●	●	●	●							
		2QP-CCGW09T304	0.4	2	2.3	●	●	●	●							
		2QP-CCGW09T308	0.8	2	2.2	●	●	●	●							
General purpose		2QP-DCGW070202	0.2	2	2.7	●	●	●								
		2QP-DCGW070204	0.4	2	2.5	●	●	●	●							
		2QP-DCGW070208	0.8	2	2.5				●							
Sharp edge		2QP-DCGW11T302F	0.2	2	2.7				●							
		2QP-DCGW11T304F	0.4	2	2.5				●							
General purpose		2QP-DCGW11T302	0.2	2	2.7	●	●									
		2QP-DCGW11T304	0.4	2	2.5	●	●		●							
		2QP-DCGW11T308	0.8	2	2.1	●	●	●	●							
General purpose		2QP-SPGW09T308	0.8	2	2.4					●						
		2QP-SPGW09T312	1.2	2	2.4					●						
		2QP-SPGW120408	0.8	2	2.4					●						
		2QP-SPGW120412	1.2	2	2.4					●						
		2QP-SPGW120416	1.6	2	2.4					●						
General purpose		2QP-SPGN090308	0.8	2	2.4					●						
		2QP-SPGN090312	1.2	2	2.4					●						
General purpose		3QP-TPGW080204	0.4	3	2.2	●	●									
		3QP-TPGW090202	0.2	3	2.3		●									
		3QP-TPGW090204	0.4	3	2.2	●	●									
		3QP-TPGW110202	0.2	3	2.3		●									
		3QP-TPGW110204	0.4	3	2.2	●	●		●							
		3QP-TPGW110208	0.8	3	2.2				●							
Sharp edge		3QP-TPGW110304F	0.4	3	2.2				●							
		3QP-TPGW110308F	0.8	3	2.2				●							
General purpose		3QP-TPGW110302	0.2	3	2.3		●									
		3QP-TPGW110304	0.4	3	2.2	●	●	●	●							
		3QP-TPGW110308	0.8	3	2.2	●	●	●	●	●						
		3QP-TPGW130302	0.2	3	2.3		●									
		3QP-TPGW130304	0.4	3	2.2	●	●									
		3QP-TPGW16T304	0.4	3	2.2	●	●									
		3QP-TPGW16T308	0.8	3	1.9	●	●									
General purpose		3QP-TPGW160404	0.4	3	2.2	●	●									
		3QP-TPGW160408	0.8	3	1.9		●									
General purpose		3QP-TPGN110308	0.8	3	2.2					●						
		3QP-TPGN110312	1.2	3	2.4					●						

● : Line up

Reference pages

External toolholders → B218 -
J series toolholders → B328 -
Cartridges → F152 -
Top-borer tools → F173 -
Internal toolholders → B278 -
PINZBOHR® → F136 - F151
Boring bar tools → F169 - F172

TurnLine - CBN Insert

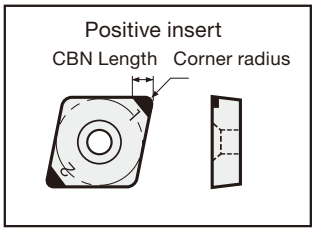
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

Positive insert · Multi-corner type (G class)

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BXM10	BXM20	BXA20
General purpose		**2QP-VBGW110304**	0.4	2	3.1	●	●	●
		2QP-VBGW110308	0.8	2	2.2	●	●	●
		2QP-VBGW160404	0.4	2	3.1	●	●	●
		2QP-VBGW160408	0.8	2	2.2	●	●	●
General purpose		**2QP-VCGW160404**	0.4	2	3.1	●	●	

● : Line up



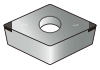
Reference pages

External toolholders → **B219 -**
J series toolholders → **B337 -**
Internal toolholders → **B282 -**
TungCap → **F011 -**

TurnLine - CBN Insert

Positive insert · Multi-corner type

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

						P	Steel										
						M	Stainless										
						K	Cast iron				●◐	◐					
						N	Non-ferrous										
						S	Superalloys					●					
						H	Hard materials	●	●◐	●◐							
Specification	**Shape**	**Designation**	**Corner radius**	**No. of corner**	**CBN Length**	**BX310**	**BX330**	**BX360**	**BX930**	**BX950**							
General purpose		**2QP-CCMW060202**	0.2	2	2.3	●	●	●									
		2QP-CCMW060204	0.4	2	2.3	●	●	●	●	●							
		2QP-CCMW09T304	0.4	2	2.3	●	●	●	●	●							
		2QP-CCMW09T308	0.8	2	2.2	●	●	●									
General purpose		**2QP-DCMW070202**	0.2	2	2.7	●	●	●									
		2QP-DCMW070204	0.4	2	2.5	●	●	●	●	●							
		2QP-DCMW11T302	0.2	2	2.7	●	●	●									
		2QP-DCMW11T304	0.4	2	2.5	●	●	●	●	●							
		2QP-DCMW11T308	0.8	2	2.1	●	●	●									
General purpose		**2QP-SPMN090304**	0.4	2	2.4		●	●	●								
		2QP-SPMN090308	0.8	2	2.4		●	●	●								
General purpose		**3QP-TPMW080204**	0.4	3	2.2	●	●	●	●								
		3QP-TPMW090202	0.2	3	2.3		●	●	●								
		3QP-TPMW090204	0.4	3	2.2	●	●	●	●								
		3QP-TPMW110202	0.2	3	2.3	●	●	●	●								
		3QP-TPMW110204	0.4	3	2.2	●	●	●	●								
		3QP-TPMW110302	0.2	3	2.3	●	●	●	●	●							
		3QP-TPMW110304	0.4	3	2.2	●	●	●	●	●							
		3QP-TPMW110308	0.8	3	1.9	●	●	●	●	●							
		3QP-TPMW130302	0.2	3	2.4	●	●	●	●	●							
		3QP-TPMW130304	0.4	3	2.2	●	●	●	●	●							
		3QP-TPMW16T304	0.4	3	2.2	●	●	●	●	●							
		3QP-TPMW16T308	0.8	3	1.9	●											
		3QP-TPMW160404	0.4	3	2.2	●	●	●	●								
		3QP-TPMW160408	0.8	3	1.9	●	●	●	●								
General purpose		**3QP-TPMN110302**	0.2	3	2.3		●	●	●	●							
		3QP-TPMN110304	0.4	3	2.2		●	●	●	●							
		3QP-TPMN110308	0.8	3	1.9		●	●	●	●							
		3QP-TPMN160304	0.4	3	2.2		●	●	●	●							
		3QP-TPMN160308	0.8	3	1.9		●	●	●	●							
General purpose		**2QP-VBMW110304**	0.4	2	3.1	●	●	●	●								
		2QP-VBMW110308	0.8	2	2.2	●	●	●	●								
		2QP-VBMW160404	0.4	2	3.1	●	●	●									
		2QP-VBMW160408	0.8	2	2.2	●	●	●									
General purpose		**2QP-VCMW160404**	0.4	2	3.1		●	●	●								

● : Line up

Reference pages

External toolholders	→ **B218 -**	Internal toolholders	→ **B278 -**
J series toolholders	→ **B328 -**	TungCap	→ **F011 -**
PINZBOHR®	→ **F136 - F151**	Cartridges	→ **F152 -**
Boring bar tools	→ **F169 - F172**		

TurnLine - CBN Insert

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

Positive insert · One-corner type

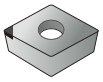
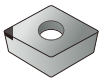
P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BX330
						H: ●◐
General purpose		Q-CCMW060204	0.4	1	2.5	●
		Q-CCMW09T304	0.4	1	2.5	●
General purpose		Q-DCMW070204	0.4	1	2.1	●
		Q-DCMW11T304	0.4	1	2.1	●
General purpose		Q-SPGN090304	0.4	1	2.8	●
		Q-SPGN090308	0.8	1	2.8	●
General purpose		Q-TPMW080204	0.4	1	2.2	●
		Q-TPMW090202	0.2	1	2.4	●
		Q-TPMW090204	0.4	1	2.3	●
		Q-TPMW110202	0.2	1	2.4	●
		Q-TPMW110204	0.4	1	2.2	●
		Q-TPMW110304	0.4	1	2.3	●
		Q-TPMW110308	0.8	1	2.2	●
		Q-TPMW130302	0.2	1	2.4	●
		Q-TPMW130304	0.4	1	2.3	●
		Q-TPMW16T304	0.4	1	2.3	●
		Q-TPMW160404	0.4	1	2.3	●
		Q-TPMW160408	0.8	1	1.9	●
General purpose		Q-TPGN110304	0.4	1	2.2	●
		Q-TPGN110308	0.8	1	2.2	●
		Q-TPGN160304	0.4	1	2.3	●
		Q-TPGN160308	0.8	1	1.9	●

Note: Packing Qty : 2 pcs.

Positive insert · Mini

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials
	Sintered metal

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BX310	BX470
						H: ●	K: ●◐ / Sintered metal: ●◐
General purpose		1QP-CCGW03X102	0.2	1	1.4	●	●
		1QP-CCGW03X104	0.4	1	1.3	●	●
		1QP-CCGW04T102	0.2	1	1.9	●	●
		1QP-CCGW04T104	0.4	1	1.8	●	●
General purpose		1QP-EPGW03X102	0.2	1	1.4	●	●
		1QP-EPGW03X104	0.4	1	1.3	●	●
		1QP-EPGW040102	0.2	1	1.7	●	●
		1QP-EPGW040104	0.4	1	1.6	●	●

● : Line up

Reference pages

External toolholders → B218 -
Internal toolholders → B278 -
J series toolholders → B328 -
PINZBOHR® → F136 - F151
Cartridges → F152 -
Boring bar tools → F169 - F172
Top-borer tools → F173 -

TurnLine - CBN Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

Positive insert · One-corner type

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BX360 (H: ●◐)
General purpose		SPGN090304-QBN	0.4	1	4.1	●
		SPGN090308-QBN	0.8	1	4.1	●
		SPGN090312-QBN	1.2	1	4.1	●
		SPGN120308-QBN	0.8	1	4.1	●
		SPGN120312-QBN	1.2	1	4.1	●
General purpose		TPGW090202-QBN	0.2	1	3.3	●
		TPGW090204-QBN	0.4	1	3.2	●
		TPGW110202-QBN	0.2	1	3.9	●
		TPGW110204-QBN	0.4	1	3.7	●
		TPGW130302-QBN	0.2	1	3.9	●
		TPGW130304-QBN	0.4	1	3.7	●
		TPGW16T302-QBN	0.2	1	4.4	●
		TPGW16T304-QBN	0.4	1	4.2	●
		TPGW16T308-QBN	0.8	1	4.0	●
General purpose		TPGN110304-QBN	0.4	1	3.7	●
		TPGN110308-QBN	0.8	1	3.5	●
		TPGN160304-QBN	0.4	1	4.2	●
		TPGN160308-QBN	0.8	1	4.0	●
General purpose		CPGA090204-QBN	0.4	1	4.0	●
		CPGA090208-QBN	0.8	1	3.8	●
General purpose		TPGA090202-QBN	0.2	1	3.1	●
		TPGA090204-QBN	0.4	1	2.9	●
		TPGA110202-QBN	0.2	1	3.9	●
		TPGA110204-QBN	0.4	1	3.7	●
		TPGA110302-QBN	0.2	1	3.9	●
		TPGA110304-QBN	0.4	1	3.7	●
		TPGA160302-QBN	0.2	1	4.4	●
		TPGA160304-QBN	0.4	1	4.2	●
		TPGA160308-QBN	0.8	1	4.0	●

Positive insert · Full-face type

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	CBN Length	BX360 (H: ●◐)
General purpose		TBGN060104-15-QBN	0.4	3	-	●
		TBGN060108-15-QBN	0.8	3	-	●

● : Line up

Reference pages

External toolholders → B243 - Internal toolholders → B282 -
Cartridges → F152 - Boring bar tools → F169 - F172

TurnLine - CBN Insert

Coated Solid CBN (BXC90)

● : Continuous cutting
◐ : Light interrupted cutting
✣ : Heavy interrupted cutting

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	BXC90
General purpose		**S-CNGN090308**	0.8	4	●
		S-CNGN090312	1.2	4	●
		S-CNGN120408	0.8	4	●
		S-CNGN120412	1.2	4	●
General purpose		**S-RNGN090300**	-	-	●
		S-RNGN120400	-	-	●
General purpose		**S-SNGN090308**	0.8	8	●
		S-SNGN090312	1.2	8	●
		S-SNGN120308	0.8	8	●
		S-SNGN120312	1.2	8	●
		S-SNGN120408	0.8	8	●
		S-SNGN120412	1.2	8	●
General purpose		**S-TNGN110308**	0.8	6	●
		S-TNGN110312	1.2	6	●
		S-TNGN160408	0.8	6	●
		S-TNGN160412	1.2	6	●

●◐												

● : Line up

TurnLine - CBN Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

T-CBN (PCBN tipped) grooving Insert

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	Grooving width ±0.05	BX360
Grooving		XGR6310S-QBN	0.2	1	1.0	
		XGR6315S-QBN	0.2	1	1.5	●
		XGR6320S-QBN	0.2	1	2.0	●
		XGR6325S-QBN	0.2	1	2.5	●
		XGR6330S-QBN	0.2	1	3.0	●
		XGR6335S-QBN	0.2	1	3.5	●
		XGR6340S-QBN	0.2	1	4.0	●
		XGR6345S-QBN	0.2	1	4.5	●

TungCut CBN insert for hardened steels

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	Grooving width ±0.025	BX360
Grooving		SGN200-020	0.2	1	2.0	●
		SGN300-020	0.2	1	3.0	●
		SGN400-020	0.2	1	4.0	●

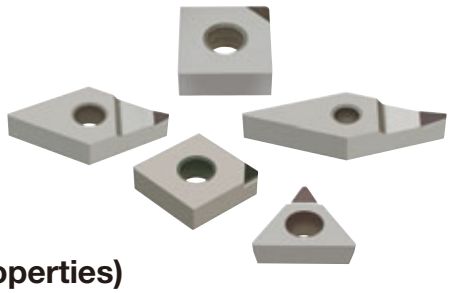
● : Line up

Reference pages

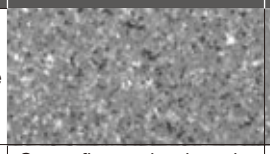
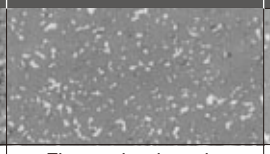
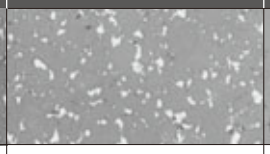
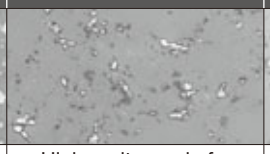
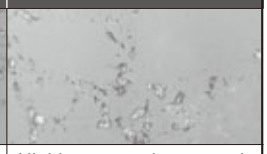
XGR... : Toolholders → C030
SGN... : Toolholders → C054 -

TurnLine - PCD grade, T-DIA series

Expanded product line allows T-DIA tools to be applied to wider workpiece materials and cutting conditions.

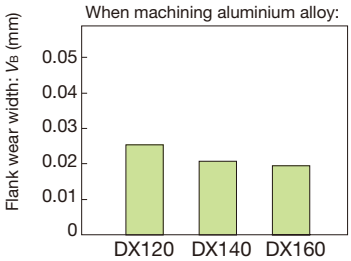


Features and applications (Physical and mechanical properties)

	DX110	DX120	DX140	DX160	DX180
Grade					
Property	Super fine grained grade. Excels in surface finish.	Fine grained grade. Excels in surface finish.	General purpose grade	High purity grade for hard materials	Highly wear resistant grade for special applications
Approx. grain size of diamond (μm)	< 1	5	13	28	45
Hardness (Hv)	8500 →				12000 (Harder)
Wear resistance	→				Higher
Grindability (Cutting edge sharpness)	Better ←				

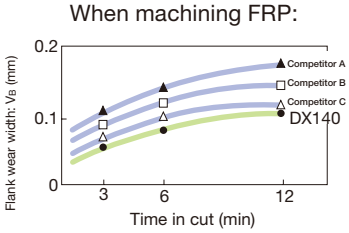
Note: T-DIA grades are not suitable for ferrous materials (such as hardened steel, chilled Cast iron), and Ni- or Co-base Superalloys.

Cutting performance (Wear resistance)



Continuous external turning

- Workpiece material: 10 % Si, aluminium alloy
- Insert: SPGN120308-DIA
- Toolholder: CSBPR2525M4
- Cutting speed: v_c = 500 m/min
- Feed: f = 0.1 mm/rev
- Depth of cut: a_p = 0.5 mm
- Coolant: Dry cutting
- Time in cut: 30 min



Face milling

- Workpiece material: Fiber reinforced plastics (FRP)
- Insert: SPCN42ZFR-DIA
- Milling cutter: TPG4208R-A
- Cutting speed: v_c = 942 m/min
- Feed: f = 0.1 mm/rev
- Depth of cut: a_p = 1.5 mm
- Coolant: Dry cutting

Grade selection guide

DX140 Basic selection (General purpose grade)

- For precision machining
- When good surface finish is required.
- When interrupted cutting is involved.

→ **DX120** Excels in cutting-edge sharpness and impact resistance. → **DX110** Super fine grained grade

- When machining hard materials such as high silicon aluminium alloys (Si > 12 %)
- Simultaneous machining of aluminium alloy and Cast iron.
- When high wear resistance is required.

→ **DX160** Superior wear resistance → **DX180** Special purpose grade

- When requiring higher wear resistance than DX160 (such as when machining high silicon materials, cemented carbides, semi-sintered ceramics, etc.)

STANDARD CUTTING CONDITIONS FOR TURNING

ISO	Workpiece material	Grade applicability DX110	DX120	DX140	DX160	DX180	Cutting speed v_c (m/min)	Depth of cut a_p (mm)	Feed f (mm/rev)
N	Aluminium alloys (Si < 12 %)	○	○	◎			1000 - 2500	0.05 - 2.0	0.05 - 0.2
	Aluminium alloys (Si > 12 %)			○	◎		400 - 800	0.05 - 2.0	0.05 - 0.2
	Copper, brass	○	○	◎			500 - 1500	0.05 - 2.0	0.05 - 0.2
	Phosphor bronze	○	○	◎			300 - 500	0.05 - 2.0	0.05 - 0.2
	Carbon, graphite			◎			300 - 500	0.05 - 2.0	0.05 - 0.2
	FRP	○	◎	○			500 - 1000	0.05 - 0.5	0.03 - 0.1
	Plastics	○	◎	○			500 - 1000	0.05 - 0.5	0.01 - 0.05
	Cemented carbides (D40 ~ D60)				○	◎	10 - 20	0.05 - 0.2	0.01 - 0.05
	Semi-sintered ceramics				○	◎	100 - 150	0.05 - 2.0	0.03 - 0.1

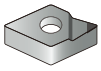
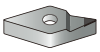
(Note) ◎ : First choice ○ : Second choice

TurnLine - PCD Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

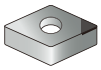
Negative insert (with rake angle)

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	PCB Length	DX120
						N ●◐
Low cutting force		CNMM120402-DIA	0.2	1	3.5	●
		CNMM120404-DIA	0.4	1	3.5	●
Low cutting force		DNMM150402-DIA	0.2	1	3.3	●
		DNMM150404-DIA	0.4	1	3.1	●
Low cutting force		TNMM160402-DIA	0.2	1	3.3	●
		TNMM160404-DIA	0.4	1	3.2	●
Low cutting force		VNMM160402-DIA	0.2	1	4.8	●
		VNMM160404-DIA	0.4	1	4.4	●
		VNMM160408-DIA	0.8	1	3.6	●

Negative insert

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	PCB Length	DX140	DX160
						N ●◐	N ●◐
General purpose		CNGA120404-DIA	0.4	1	3.5	●	
		CNGA120408-DIA	0.8	1	2.8	●	
General purpose		DNGA150404-DIA	0.4	1	3.1	●	●
		DNGA150408-DIA	0.8	1	2.8	●	
General purpose		SNGA120404-DIA	0.4	1	3.6	●	
		SNGA120408-DIA	0.8	1	3.6	●	
General purpose		SNGN120408-DIA	0.8	1	3.6	●	
General purpose		TNGA160404-DIA	0.4	1	3.2	●	●
		TNGA160408-DIA	0.8	1	2.9	●	●

● : Line up

Reference pages

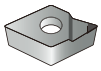
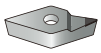
External toolholders	→ B204 -	Internal toolholders	→ B292 -
J series toolholders	→ B342 - B344	TungCap	→ B215 -, B317, F006 -
PINZBOHR®	→ F136 - F151	Cartridges	→ F152 -

TurnLine - PCD Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

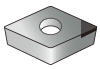
Positive insert (with rake angle)

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	Relief angle	PCB Length	DX120
							N: ●◐
Low cutting force		CCMT060202-DIA	0.2	1	7°	2.4	●
		CCMT060204-DIA	0.4	1	7°	2.4	●
		CCMT09T302-DIA	0.2	1	7°	3.5	●
		CCMT09T304-DIA	0.4	1	7°	3.5	●
Low cutting force		DCMT070202-DIA	0.2	1	7°	2.3	●
		DCMT070204-DIA	0.4	1	7°	2.1	●
		DCMT11T302-DIA	0.2	1	7°	3.2	●
		DCMT11T304-DIA	0.4	1	7°	3.0	●
Low cutting force		TCMT080202-DIA	0.2	1	7°	2.4	●
		TCMT080204-DIA	0.4	1	7°	2.3	●
		TCMT110202-DIA	0.2	1	7°	2.4	●
		TCMT110204-DIA	0.4	1	7°	2.2	●
		TCMT110302-DIA	0.2	1	7°	2.4	●
		TCMT110304-DIA	0.4	1	7°	2.2	●
Low cutting force		VCMT160402-DIA	0.2	1	7°	4.8	●
		VCMT160404-DIA	0.4	1	7°	4.4	●

Positive insert

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Specification	Shape	Designation	Corner radius	No. of corner	Relief angle	PCB Length	DX120	DX140	DX160
							N: ●◐	N: ●◐	N: ●◐
General purpose		CCGW060200-DIA	0.05	1	7°	2.4		●	
		CCGW060202-DIA	0.2	1	7°	2.4		●	
		CCGW060204-DIA	0.4	1	7°	2.4		●	
		CCGW09T302-DIA	0.2	1	7°	3.5		●	
		CCGW09T304-DIA	0.4	1	7°	3.5		●	●
		CCGW09T308-DIA	0.8	1	7°	3.4		●	
General purpose		DCGW070200-DIA	0.05	1	7°	2.4		●	
		DCGW070202-DIA	0.2	1	7°	2.3	●	●	
		DCGW070204-DIA	0.4	1	7°	2.1		●	
		DCGW11T302-DIA	0.2	1	7°	3.2		●	
		DCGW11T304-DIA	0.4	1	7°	3.0		●	
		DCGW11T308-DIA	0.8	1	7°	2.7		●	
General purpose		SPGN090308-DIA	0.8	1	11°	3.6		●	
		SPGN120302-DIA	0.2	1	11°	3.6		●	
		SPGN120304-DIA	0.4	1	11°	3.6		●	
		SPGN120308-DIA	0.8	1	11°	3.6		●	●

● : Line up

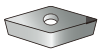
Reference pages

External toolholders → B218 -
J series toolholders → B328 -
PINZBOHR® → F136 - F151
Internal toolholders → B278 -
TungCap → F011 -
Cartridges → F152 -

TurnLine - PCD Insert

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

Positive insert

							P	Steel															
							M	Stainless															
							K	Cast iron															
							N	Non-ferrous	●◐	●◐													
							S	Superalloys															
							H	Hard materials															
Specification	Shape	Designation	Corner radius	No. of corner	Relief angle	PCB Length	DX120	DX140															
General purpose		CPGA090202-DIA	0.2	1	11°	3.5		●															
		CPGA090204-DIA	0.4	1	11°	3.5		●															
General purpose		EPGW040102-DIA	0.2	1	11°	2.0		●															
		EPGW040104-DIA	0.4	1	11°	1.9		●															
General purpose		TPGA090202-DIA	0.2	1	11°	2.4		●															
		TPGA090204-DIA	0.4	1	11°	2.2		●															
		TPGA110202-DIA	0.2	1	11°	2.4		●															
		TPGA110204-DIA	0.4	1	11°	2.2		●															
		TPGA110302-DIA	0.2	1	11°	2.4		●															
		TPGA110304-DIA	0.4	1	11°	2.2		●															
		TPGA110308-DIA	0.8	1	11°	2.9		●															
		TPGA160302-DIA	0.2	1	11°	3.3		●															
		TPGA160304-DIA	0.4	1	11°	3.2		●															
		TPGA160308-DIA	0.8	1	11°	2.9		●															
General purpose		TPGN090204-DIA	0.4	1	11°	2.2		●															
		TPGN110304-DIA	0.4	1	11°	3.2	●	●															
		TPGN110308-DIA	0.8	1	11°	2.9		●															
		TPGN160302-DIA	0.2	1	11°	3.3		●															
		TPGN160304-DIA	0.4	1	11°	3.2	●	●															
		TPGN160308-DIA	0.8	1	11°	2.9		●															
General purpose		TPGW080202-DIA	0.2	1	11°	2.4		●															
		TPGW080204-DIA	0.4	1	11°	2.3		●															
		TPGW090202-DIA	0.2	1	11°	2.4	●	●															
		TPGW090204-DIA	0.4	1	11°	2.2		●															
		TPGW110202-DIA	0.2	1	11°	2.4	●	●															
		TPGW110204-DIA	0.4	1	11°	2.2		●															
		TPGW130302-DIA	0.2	1	11°	3.3	●	●															
		TPGW130304-DIA	0.4	1	11°	3.2		●															
		TPGW16T302-DIA	0.2	1	11°	3.3		●															
		TPGW16T304-DIA	0.4	1	11°	3.2		●															
		TPGW16T308-DIA	0.8	1	11°	2.9		●															
General purpose		VCGW160402-DIA	0.2	1	7°	4.8		●															
		VCGW160404-DIA	0.4	1	7°	4.4		●															

● : Line up

Reference pages

External toolholders → B243 -
Internal toolholders → B279 -
Cartridges → F152 -
Boring bar tools → F169 - F172
Top-borer tools → F173 -

MEMO

TurnLine - External Toolholder

MINIFORCETURN
Economical double-sided inserts with excellent sharpness

B188

ISOECOTURN
Small-sized “Eco” insert series for maximized profits

B198

TURNINGA
Highly rigid clamping system with excellent repeatability

B204

TUNGTURNJET
Toolholders for high pressure coolant supply

B212

Y-PRO SERIES
Inserts with 25° corner angle for profiling

B220

ISO-Turn External
Toolholders for general external turning
D-type, H-type, M-type, P-type, S-type, T-type

B221

FIXRTURN
Highly productive round insert with 6 indexes

B253

DIMPLEFX
Ceramic insert with dimple for highly efficient cast iron machining

B254

TURNFEED
Tool series for high-feed cutting

B257

TURNTEC
Inserts and toolholders for roughing large depths of cut with high productivity

B258

ISO-EcoTurn

Tungaloy **B181**

External Toolholder (Negative insert) - Quick Guide

	Turning / Facing		External profiling					Turning	
	L 95°		J 93°		N 63°	V 72.5°	P 62.5°	A 91°	G 91°
Turning A Double clamping	80° CN□□ ACLNR/L □0904-A □12-A □16-A □19-A **B198, B204** 80° WN□□ AWLNR/L □06-A □08-A **B198, B205**	70° GN□□ ACLNR/L □12-A **B204**	55° DN□□ ADJNR/L □1104-A □15-A □1506-A **B199, B205** 60° TN□□ ATJNR/L □16-A **B206**	35° VN□□ AVJNR/L □16-A □1204-A **B203, B206** 25° YNMG AVJNR/L □16-A **B206**		35° VN□□ AVVNN □16-A □1204-A **B204, B206** 25° YNMG AVVNN □16-A **B206**	55° DN□□ ADPNN □15-A **B207**		60° TN□□ ATGNR/L □16-A □22-A **B207**
D One-Double	80° CN□□ DCLNR/L □12 □16 □19 **B221** 80° WN□□ DWLNR/L □06 □08 **B222**	70° GN□□ DCLNR/L □12 **B221**	55° DN□□ DDJNR/L □15 □1506 **B222**						60° TN□□ DTGNR/L □16 □22 **B223**
C Double clamping for dimple ceramic insert	80° CN□□ CCLNR/L □1207-RD **B254**		55° DN□□ CDJNR/L □1507-RD **B254**		55° DNGD CDNNN □1507-RD **B255**	35° VNGD CVVNN □1607-RD **B255**			
P Lever lock	80° CN□□ PCLNR/L □0904 □09 □12 □16 □19 **B198, B199, B212, B215, B226, B342** 80° CN□□ PCMNN □12 **B216** 80° CN□□ PCL2NR □12 **B342** 80° WN□□ PWLNR/L □0604 □08 **B199, B214, B215**	70° GN□□ PCLNR/L □12 **B212, B215, B226, B342** 70° GN□□ PCMNN □12 **B216** 70° GN□□ PCL2NR □12 **B342** 60° TN□□ PTL2NR/L □16 **B226, B344**	55° DN□□ PDJNR/L □11 □1104 □15 □1506 **B200, B212, B215, B227, B342** 35° VN□□ PVJNR/L □16 □1204 **B202, B213, B216** 25° YNMG PVJNR/L □16 **B213, B216**	60° TN□□ PTJNR/L □1104 **B201**		35° VN□□ PVVNN □1204 **B202**	55° DN□□ PDPNN □15 □1506 **B227** 55° DN□□ PDMNL □1104 **B217**		60° TN□□ PTGNR/L □1104 □16 □22 **B201, B213, B228**
M Multi clamping	80° CN□□ MCLNR/L □12 **B234** 80° CN□□ MCLNR/L □12 **B234**	70° GN□□ MCLNR/L □12 **B234** 80° WN□□ MWLNR/L □08 **B234**	35° VN□□ MVJNR/L □16 **B234** 25° YNMG MVJNR/L □16 **B234** 60° TN□□ MTJNR/L □16 **B235**	55° DN□□ MDJNR/L □15 **B235** 55° DN□□ MDJNR □15 **B235** 60° TN□□ MTJNR/L □16 **B235**		35° VN□□ MVVNN □16 **B235** 25° YNMG MVVNN □16 **B235**	55° DN□□ MDPNN □15 **B236** 55° DN□□ MDPNN □15 **B236**		
C Clamp-on			55° KNMX CKJNR/L □16 **B241**						60° TN□□ CTGNR/L □16 **B241**
H Retract-pin									
JT Back clamping	60° TN□□ JTTLNR/L □16 **B343**							60° TN□□ JTTANR/L □16 **B343**	

The page number for the product details is shown in red.

Turning	Turning chamfering		Turning/Facing chamfering	Facing		Profiling	External profiling
B·R 75°	E 60°	D 45°	S 45°	K 75°	F 91°	Q*1 · H*1 45°	Special
90° SN□□ ASBNR/L □12-A □15-A □19-A B208		90° SN□□ ASDNN □12-A B208	90° SN□□ ASSNR/L □12-A □15-A □19-A B209	90° SN□□ ASKNR/L □12-A B209	60° TN□□ ATFNR/L □16-A □22-A B210	55° DN□□ ADQNR/L □1104-A □15-A □1506-A B203, B210 35° VN□□ AVQNR/L □16-A □1204-A B203, B211 60° TN□□ ATQNR/L □16-A B210 25° YNMG AVQNR/L □16-A B211	- RN□□ ARGNR/L □12-A B211
90° SN□□ DSBNR/L □12 □15 □19 B223		90° SN□□ DSDNN □12 B223	90° SN□□ DSSNR/L □12 B224	90° SN□□ DSKNR/L □12 B224	60° TN□□ DTFNR/L □16 □22 B224	55° DN□□ DDQNR/L □15 □1506 B225	- RN□□ DRGNR/L □12 B225
			90° SNGD CSSNR/L □1207-RD B255 90° HNGD CHSNR/L □0507-RD B256				
90° SN□□ PSBNR/L □09 □12 □19 B229 100° CN□□ PCBNR/L □12 B228		90° SN□□ PSDNN □09 □12 B229	90° SN□□ PSSNR/L □09 □12 □19 B230	90° SN□□ PSKNR/L □09 □12 □19 B230	60° TN□□ PTFNR/L □1104 □16 □22 B201, B231 80° CN□□ PCFNR/L □12 B231	55° DN□□ PDQNR/L □15 B232 35° VN□□ PVQNR/L □16 □1204 B202, B214	- RNMG PRGNR/L □09 □12 B232
	60° TN□□ MTENN □16 B236					35° VN□□ MVQNR/L □16 B237 60° TN□□ MTQNR/L □16 B236 25° YNMG MVQNR/L □16 B237 60° TN□□ MTQNR/L □16 B236	
90° SN□□ CSBNR/L □12 B241		90° SN□□ CSDNN □12 B242	90° SN□□ CSSNR/L □12 B242	90° SN□□ CSKNR/L □12 B242	60° TN□□ CTFNR/L □16 B243		
90° SNMM HSRNR/L □31 B245							

Note:*1 marked Q and H style are Tungaloy Standard.

External Toolholder (Positive insert) - Quick Guide

	Turning Facing	External profiling				Turning			Turning Facing
	L 95°	J 93°		V 72.5°	N 62.5°	A 91°	G 91°	B·R 75°	X 20°
X Double clamping screw-on/clamping									80° WPMT XWXPR/L □09 **B257**
P Lever lock	80° WXGU JPWL2XR/L □04 **B188**	55° DXGU JPDJ2XR/L □07 **B190**	35° VXGU JPVJ2XR/L □09 **B192**						
C Clamp-on							60° TP□□ CTGPR/L □16 **B243**	90° SP□□ CSBPR/L □09 □12 **B243**	
J Screw-on	80° CC□□ JSCLCR/L □06 □09 **B329** 80° CC□□ JSCL2CR/L*2 □06 □09 **B328** 35° VP□□ JSVL2PR/L □08 □11 **B341** 80° WXGU JSWLXR □04 **B189** JSWL2XR/L □04 **B188, B189, B217**	55° DC□□ JSDJCR/L □07 □11 **B332, B333** 55° DC□□ JSDJ2CR/L*2 □07 □11 **B218, B331, B333** 35° VB□□ JSVJBR/L □11 **B337, B339** 35° VB□□ JSVJ2BR/L □11 **B219, B337, B338**	55° DXGU JSDJXR □07 **B191** JSDJ2XR/L □07 **B190, B191, B217** 35° VXGU JSVJXR □09 **B193** JSVJ2XR/L □09 **B192, B193, B218**	35° VB□□ JSVNBN □11 **B340**	55° DC□□ JSDNCN □07 □11 **B334** 55° DC□□ JSDN3CR/L*3 □07 □11 **B334**	80° CC□□ JSCACL □06 □09 **B330** 60° TC□□ JSTACR/L □08 □11 **B336** 35° VB□□ JSVABR/L □11 **B338**	80° CC□□ JSCGCR/L □06 □09 **B331**			
S Screw-on	80° CC□□ SCLCR/L □09 □12 **B246**	55° DC□□ SDJCR/L □11 **B246** 35° VC□□ SVJCR/L □16 **B246** 25° YWMT SYJBR/L □16 **B220**		35° VC□□ SVVCN □16 **B247**	55° DC□□ SDNCN □11 **B247**	60° TC□□ STACR/L □16 **B247**			
JT Back clamping	80° CC□□ JTCL2CR/L □06 □09 **B328**	55° DC□□ JTDJ2CR/L □07 □11 **B332**				60° TC□□ JTTACR/L □08 □11 **B336**			
T Taper-lock									

*2: L2 and J2: without offset

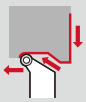
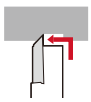
*3

The page number for the product details is shown in red.

	Turning Chamfering	Turning / Facing Chamfering	Facing		Profiling			
	D 45°	S 45°	F 91°	C 90°	Q*1 45° · H*1 17.5°	H 100°	I 76.5°	P 117.5°
	90° □ SP□□ CSDPN □09 □12 B244	90° □ SP□□ CSSPR/L □09 □12 B244	60° △ TP□□ CTFPR/L □16 B244	60° △ TP□□ CTCPR/L □16 B245				
			55° DC□□ JSDFCR/L □07 □11 B335					35° VP□□ JSVP2PR/L □08 □11 B341
	90° SC□□ SSDCN □07 □09 B250 90° SP□□ SSDPN Tungaloy standard □07 □09 B250				35° VC□□ SVQCR/L □16 B251 55° DC□□ SDQCR/L □11 B251 35° VCG□ SVHCR/L □22 B251 25° YWMT SYQBR/L □16 B220	25° YWMT SYHBR/L □16 B220	25° YWMT SYIBN □16 B221	

Note:*1 marked Q and H style are Tungaloy Standard.

External Toolholder (Positive insert) - Quick Guide

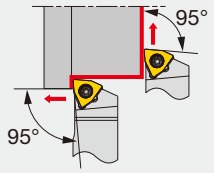
	External profiling	Back turning	Front turning / Revese turning
	Special 		
X Double clamping screw-on/clamping			
P Lever lock	- RCM□ PRGCR/L □10 □12 □16 □20 **B233** - RCM□ PRDCN □10 □12 □16 □20 □25 **B233**		
C Clamp-on			
J Screw-on		JXB JSXBR/L □08 **B346** JTB JSTBR/L □03 **B347** JS□□K-TBL3 □3 **B347** J10E JSEGR/L □10 **B349**	JX□□ JSXGR/L □08 **B345, B362** 55° DC□□ JS□□K-SDUCL □07 □11 **B335** 55° DXGU JS□□□-SDUXL □07 **B194** 35° VXGU JS□□□-SVUXL □09 **B194**
S Screw-on	- RCMT SRACR/L □05 □06 □08 **B248** - RCMT SRGCR/L □05 □06 □08 □10 □12 **B249, B253** - RCMT SRDCN □06 □08 □10 □12 **B250, B253**	**Note:** JSXBR/L type is also used for JXT-type threading inserts.	**Note:** JSXGR/L type is also used for JXG-type grooving inserts.
JT Back clamping			
T Taper-lock	- RT□□ TRACN □05 □06 □08 **B252** - RT□□ TRDCN □05 □06 **B252**		

The page number for the product details is shown in red.

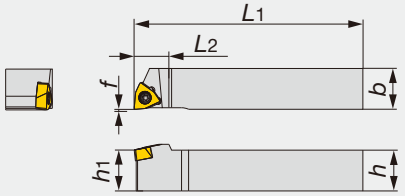
MEMO

MINIFORCE TURN
JSWL2XR/L

Screw-on toolholder without offset with 95° approach angle, for WXGU inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L2020H04	20	20	100	13	20	0	0.2	WXGU0403**L/R...	0.9

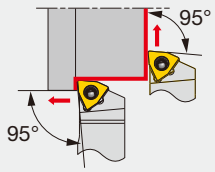
*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

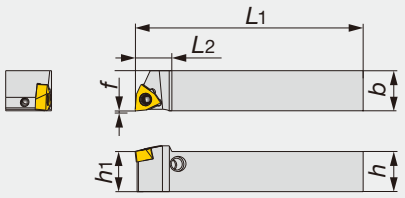
Designation	Clamping screw	Wrench
JSWL2XR/L...	SR34-514	T-7F

MINIFORCE TURN
JPWL2XR/L

Lever lock type toolholder without offset with 95° approach angle, for WXGU inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JPWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

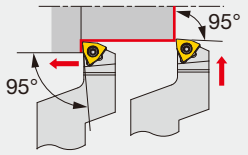
Designation	Lever	Pin	Clamping screw	Wrench
JPWL2XR/L...	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED

Reference pages

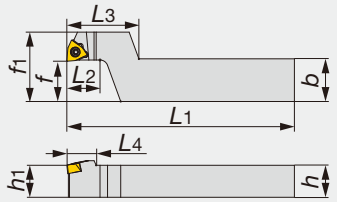
JSWL2XR/L, JPWL2XR/L: Inserts → **B195**, Standard cutting conditions → **B197**

MINIFORCE TURN
JSWLXR-F

Screw-on stepped-head toolholder with 95° approach angle, for WXGU inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	L3	L4	h1	f	f1	rε**	Insert	Torque*
JSWLXR1016X04-F15	10	16	120	12	27	11	10	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216F04-F15	12	16	85	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216X04-F15	12	16	120	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1620X04-F15	16	20	120	12	27	11	16	15	26	0.2	WXGU0403**L...	0.9

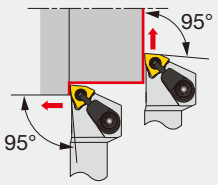
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L).

SPARE PARTS

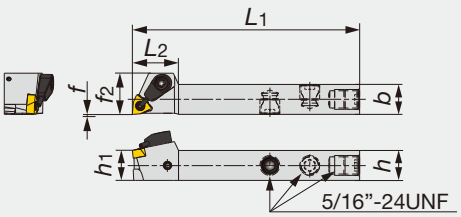
Designation	Clamping screw	Wrench
JSWLXR**-F15	SR34-514	T-7F

MINIFORCE TURN
JSWL2XR/L-CHP

Screw-on toolholder without offset with 95° approach angle, for WXGU inserts,with channels for high pressure coolant



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

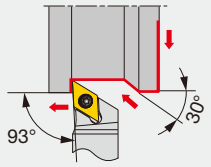
Designation	Clamping screw	Coolant unit	Wrench
JSWL2XR/L1212F04-CHP	SR34-514	S-CU-CHP	T-7F

Reference pages

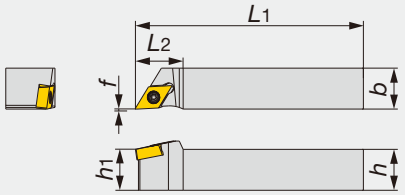
JSWLXR-F, JSWL2XR/L-CHP: Inserts → **B195**, Standard cutting conditions → **B197**

MINIFORCE TURN
JSDJ2XR/L

Screw-on toolholder without offset with 93° approach angle, for DXGU inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DXGU0703**L/R...	0.9

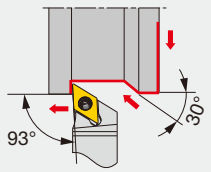
*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

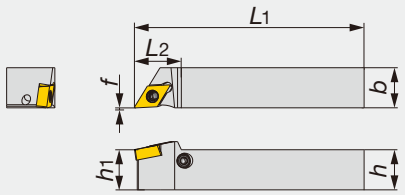
Designation	Clamping screw	Wrench
JSDJ2XR/L...	SR34-514	T-7F

MINIFORCE TURN
JPDJ2XR/L

Lever lock type toolholder without offset with 93° approach angle, for DXGU inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JPDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DXGU0703**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPDJ2XR/L...	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED

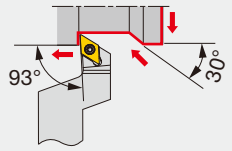
Reference pages

JSDJ2XR/L, JPDJ2XR/L: Inserts → **B196**, Standard cutting conditions → **B197**

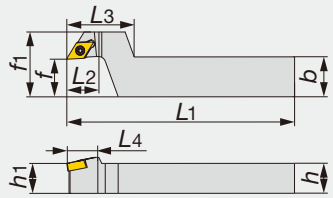
MINIFORCE TURN

JSDJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for DXGU inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	L3	L4	h1	f	f1	rε**	Insert	Torque*
JSDJXR1016X07-F15	10	16	120	12	27	14	10	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216F07-F15	12	16	85	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216X07-F15	12	16	120	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1620X07-F15	16	20	120	12	27	14	16	15	26	0.2	DXGU0703**L...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L).

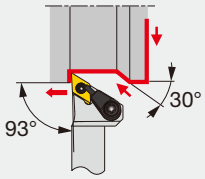
SPARE PARTS

Designation	Clamping screw	Wrench
JSDJXR**-F15	SR34-514	T-7F

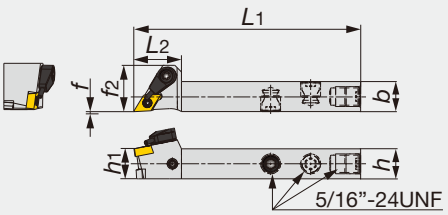
MINIFORCE TURN

JSDJ2XR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for DXGU inserts, with channels for high pressure coolant



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DXGU0703**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

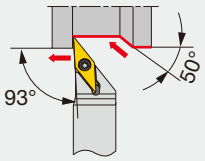
Designation	Clamping screw	Coolant unit	Wrench
JSDJ2XR/L1212F07-CHP	SR34-514	S-CU-CHP	T-7F

Reference pages

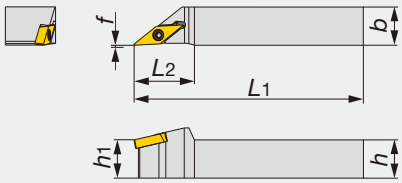
JSDJXR-F, JSDJ2XR/L-CHP: Inserts → **B196**, Standard cutting conditions → **B197**

MINIFORCE TURN
JSVJ2XR/L

Screw-on toolholder without offset with 93° approach angle, for VXGU inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
JSVJ2XR/L1010X09	10	10	120	17	10	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L2020H09	20	20	100	19	20	0	0.2	VXGU09T2**L/R...	0.9

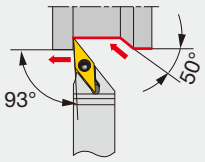
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

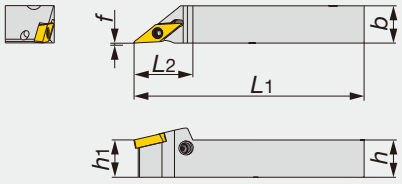
Designation	Clamping screw	Wrench
JSVJ2XR/L...	SR34-508	T-7F

MINIFORCE TURN
JPVJ2XR/L

Lever lock type toolholder without offset with 93° approach angle, for VXGU inserts



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
JPVJ2XR/L1010X09	10	10	120	19	10	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPVJ2XR/L...	SLLV-1	SL-PI-2	SR10400611	HW2.0/5RED

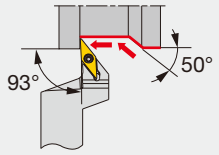
Reference pages

JSVJ2XR/L, JPVJ2XR/L: Inserts → **B197**, Standard cutting conditions → **B197**

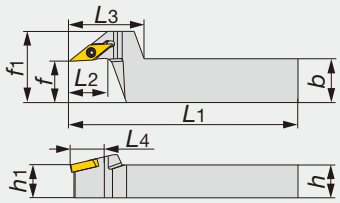
MINIFORCE TURN

JSVJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	L3	L4	h1	f	f1	rε**	Insert	Torque*
JSVJXR1016X09-F15	10	16	120	12	27	19	10	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216F09-F15	12	16	85	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216X09-F15	12	16	120	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1620X09-F15	16	20	120	12	27	19	16	15	26	0.2	VXGU09T2**L...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L).

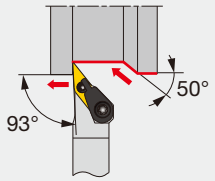
SPARE PARTS

Designation	Clamping screw	Wrench
JSVJXR**-F15	SR34-508	T-7F

MINIFORCE TURN

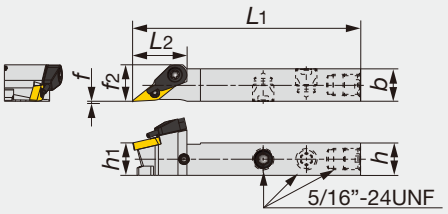
JSVJ2XR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for VXGU inserts, with coolant nozle for high pressure



Cutting edge style **J2**

Without offset



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

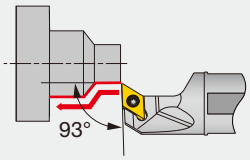
Designation	Clamping screw	Coolant unit	Wrench
JSVJ2XR/L1212F09-CHP	SR34-508	S-CU-CHP	T-7F

Reference pages

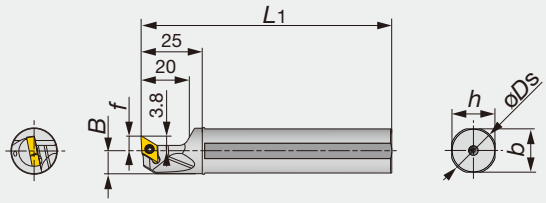
JSVJXR-F, JSVJ2XR/L-CHP: Inserts → **B197**, Standard cutting conditions → **B197**

MINIFORCE TURN
JS-SDUXL

Screw-on toolholder with 93° approach angle, for DXGU inserts



Cutting edge style **U**



Left hand (L) shown.

Designation	øDs	f	L1	h	b	B	rε**	Insert	Torque*
JS14H-SDUXL07	14	6	100	13	13	6.75	0.2	DXGU0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	15	7.687	0.2	DXGU0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	15	7.75	0.2	DXGU0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	18	9.275	0.2	DXGU0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	18	9.275	0.2	DXGU0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	19	9.75	0.2	DXGU0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	19	9.75	0.2	DXGU0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	21	10.75	0.2	DXGU0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	24	12.25	0.2	DXGU0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	24	12.45	0.2	DXGU0703**L...	0.9

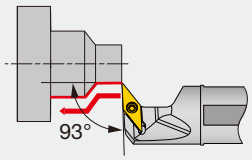
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Left-hand toolholders (L) are used with left-hand inserts (L).

SPARE PARTS

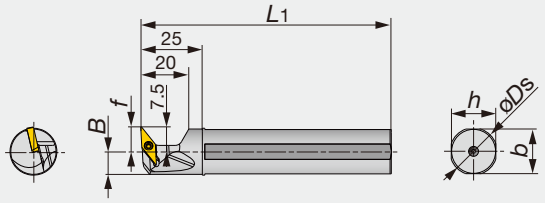
Designation	Clamping screw	Wrench
JS**-SDUXL07	SR34-514	T-7F

MINIFORCE TURN
JS-SVUXL

Screw-on toolholder with 93° approach angle, for VXGU inserts



Cutting edge style **U**



Left hand (L) shown.

Designation	øDs	f	L1	h	b	B	rε**	Insert	Torque*
JS159F-SVUXL09	15.875	10	85	15	15	7.7	0.2	VXGU09T2**L...	0.9
JS16F-SVUXL09	16	10	85	15	15	7.7	0.2	VXGU09T2**L...	0.9
JS19G-SVUXL09	19.05	10	90	18	18	9.2	0.2	VXGU09T2**L...	0.9
JS19X-SVUXL09	19.05	10	120	18	18	9.2	0.2	VXGU09T2**L...	0.9
JS20G-SVUXL09	20	10	90	19	19	9.7	0.2	VXGU09T2**L...	0.9
JS20X-SVUXL09	20	10	120	19	19	9.7	0.2	VXGU09T2**L...	0.9
JS22X-SVUXL09	22	10	120	21	21	10.7	0.2	VXGU09T2**L...	0.9
JS25H-SVUXL09	25	10	100	24	24	12.2	0.2	VXGU09T2**L...	0.9
JS254X-SVUXL09	25.4	10	120	24	24	12.4	0.2	VXGU09T2**L...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Left-hand toolholders (L) are used with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SVUXL09	SR34-508	T-7F

Reference pages

JS-SDUXL: Inserts → **B196**, Standard cutting conditions → **B197**

JS-SVUXL: Inserts → **B197**, Standard cutting conditions → **B197**

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

INSERT

POSITIVE TYPE DOUBLE-SIDED

Trigon, 80° with hole

		AH725	SH725	GT9530	NS9530	KS05F
P	Steel	◐	●◐	●◐	●◐	
M	Stainless	◐	●◐			
K	Cast iron	◐		●◐	●◐	●
N	Non-ferrous					●
S	Superalloys	●				●
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	AH725 (Coated)	SH725 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	KS05F (Uncoated)
Finishing to medium cutting(Sharp edge)	JTS	WXGU040301MFR-JTS	<0.1*		●			
		WXGU040301MFL-JTS	<0.1*		●			
		WXGU040302MFR-JTS	<0.2*		●			
		WXGU040302MFL-JTS	<0.2*		●			
Finishing to medium cutting	JTS	WXGU040301MR-JTS	<0.1*	●				
		WXGU040301ML-JTS	<0.1*	●				
		WXGU040302MR-JTS	<0.2*	●				
		WXGU040302ML-JTS	<0.2*	●				
Finishing (Low cutting force) (Sharp edge)	JSS	WXGU040301MFR-JSS	<0.1*		●			
		WXGU040301MFL-JSS	<0.1*		●			
		WXGU040302MFR-JSS	<0.2*		●			
		WXGU040302MFL-JSS	<0.2*		●			
Finishing (Low cutting force)	JSS	WXGU040301MR-JSS	<0.1*	●				
		WXGU040301ML-JSS	<0.1*	●				
		WXGU040302MR-JSS	<0.2*	●				
		WXGU040302ML-JSS	<0.2*	●				
Finishing to medium cutting	TS	WXGU040302R-TS	0.2	●		●	●	●
		WXGU040302L-TS	0.2	●		●	●	●
		WXGU040304R-TS	0.4	●		●	●	●
		WXGU040304L-TS	0.4	●		●	●	●
		WXGU040308R-TS	0.8	●		●	●	●
		WXGU040308L-TS	0.8	●		●	●	●
Finishing (Wiper)	TSW	WXGU040304R-TSW	0.4	●		●	●	
		WXGU040304L-TSW	0.4	●		●	●	
		WXGU040308R-TSW	0.8	●		●	●	
		WXGU040308L-TSW	0.8	●		●	●	
Finishing (Low cutting force)	SS	WXGU040302R-SS	0.2	●		●	●	●
		WXGU040302L-SS	0.2	●		●	●	●
		WXGU040304R-SS	0.4	●		●	●	●
		WXGU040304L-SS	0.4	●		●	●	●

* Corner radius has minus tolerance

● : Line up

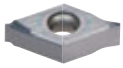
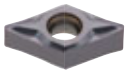
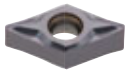
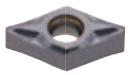
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

INSERT

POSITIVE TYPE DOUBLE-SIDED

Rhombic, 55° with hole

		AH725	SH725	GT9530	NS9530	KS05F
P	Steel	◐	●◐	●◐	●◐	
M	Stainless	◐	●◐			
K	Cast iron	◐		●◐	●◐	●
N	Non-ferrous					●
S	Superalloys	●				●
H	Hard materials					
		Coated		Coated cermet	Cermet	Uncoated

Application	Chipbreaker	Designation	Corner radius	AH725	SH725	GT9530	NS9530	KS05F
Finishing (sharp edge)	JRP 	DXGU070301MFRE-JRP	<0.1*		●			
		DXGU070301MFLE-JRP	<0.1*		●			
		DXGU070302MFRE-JRP	<0.2*		●			
		DXGU070302MFLE-JRP	<0.2*		●			
Finishing to medium cutting(sharp edge)	JTS 	DXGU070301MFR-JTS	<0.1*		●			
		DXGU070301MFL-JTS	<0.1*		●			
		DXGU070302MFR-JTS	<0.2*		●			
		DXGU070302MFL-JTS	<0.2*		●			
Finishing to medium cutting	JTS 	DXGU070301MR-JTS	<0.1*	●				
		DXGU070301ML-JTS	<0.1*	●				
		DXGU070302MR-JTS	<0.2*	●				
		DXGU070302ML-JTS	<0.2*	●				
Finishing (Low cutting force) (sharp edge)	JSS	DXGU070301MFR-JSS	<0.1*		●			
		DXGU070301MFL-JSS	<0.1*		●			
		DXGU070302MFR-JSS	<0.2*		●			
		DXGU070302MFL-JSS	<0.2*		●			
Finishing (Low cutting force)	JSS	DXGU070301MR-JSS	<0.1*	●				
		DXGU070301ML-JSS	<0.1*	●				
		DXGU070302MR-JSS	<0.2*	●				
		DXGU070302ML-JSS	<0.2*	●				
Finishing to medium cutting	TS 	DXGU070302R-TS	0.2	●		●	●	●
		DXGU070302L-TS	0.2	●		●	●	●
		DXGU070304R-TS	0.4	●		●	●	●
		DXGU070304L-TS	0.4	●		●	●	●
		DXGU070308R-TS	0.8	●		●	●	●
		DXGU070308L-TS	0.8	●		●	●	●
Finishing (Low cutting force)	SS	DXGU070302R-SS	0.2	●		●	●	●
		DXGU070302L-SS	0.2	●		●	●	●
		DXGU070304R-SS	0.4	●		●	●	●
		DXGU070304L-SS	0.4	●		●	●	●

* Corner radius has minus tolerance

● : Line up

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

POSITIVE TYPE DOUBLE-SIDED

Rhombic, 35° with hole

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloys
H	Hard materials

Application	Chipbreaker	Designation	Corner radius	Coated SH725
Finishing (sharp edge)	JRP	VXGU09T201MFRE-JRP	<0.1*	●
		VXGU09T201MFLE-JRP	<0.1*	●
		VXGU09T202MFRE-JRP	<0.2*	●
		VXGU09T202MFLE-JRP	<0.2*	●

* Corner radius has minus tolerance

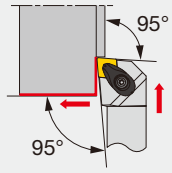
● : Line up

STANDARD CUTTING CONDITIONS
FOR EXTERNAL TURNING

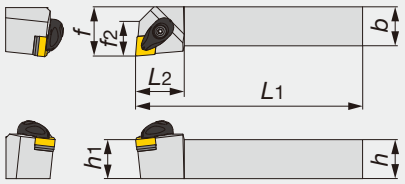
Applications	ISO	Workpiece material	Priority	Chip-breaker	Grade	Cutting speed *Vc* (m/min)	Depth of cut *ap* (mm)	Feed *f* (mm/rev)
For swiss type automatic lathes	P	Low carbon steel E275A, etc. Carbon steel C45, etc. Low alloy steel 18CrMo4, etc. Alloy steel 42CrMo4, etc.	With high sharpness	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.1
			First choice	JTS	AH725	50 - 180	0.1 - 2	0.03 - 0.1
	M	Stainless steel (Austenitic) X5CrNi18-9, etc. Stainless steel (Martensitic and ferritic) X6Cr17, etc. Stainless steel (Precipitation hardened) X5CrNiCuNb16-4, etc.	First choice	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.1
			For impact resistance	JTS	AH725	50 - 180	0.1 - 2	0.03 - 0.1
For small size CNC lathes	P	Low carbon steel E275A, etc. Carbon steel C45, etc. Low alloy steel 18CrMo4, etc. Alloy steel 42CrMo4, etc.	First choice	SS	AH725	50 - 180	0.15 - 1.5	0.05 - 0.2
				TS	AH725	50 - 180	0.3 - 2	0.08 - 0.3
			For improved surface finish	SS	NS9530	80 - 200	0.15 - 1.5	0.05 - 0.2
				TS	NS9530	80 - 200	0.3 - 2	0.08 - 0.3
			For wear resistance	SS	GT9530	80 - 250	0.15 - 1.5	0.05 - 0.2
				TS	GT9530	80 - 250	0.3 - 2	0.08 - 0.3
	M	Stainless steel (Austenitic) X5CrNi18-9, etc. Stainless steel (Martensitic and ferritic) X6Cr17, etc. Stainless steel (Precipitation hardened) X5CrNiCuNb16-4, etc.	First choice	SS	AH725	50 - 150	0.15 - 1.5	0.05 - 0.2
			For impact resistance	TS	AH725	50 - 150	0.3 - 2	0.08 - 0.3

ISOECOTURN
ACLNR/L-Eco

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ACLNR/L2020K0904-A	20	20	125	25	20	25	18	0.8	CN**0904...	3
ACLNR/L2525M0904-A	25	25	150	25	25	32	18	0.8	CN**0904...	3

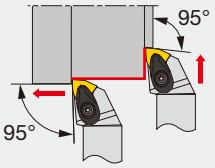
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

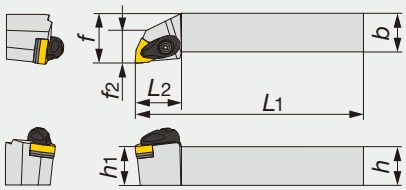
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ACLNR/L**0904-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F

ISOECOTURN
AWLNR/L-Eco

Double-clamp toolholder with 95° approach angle, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
AWLNR/L2020K0604-A	20	20	125	27	20	25	16	0.8	WN**0604...	3
AWLNR/L2525M0604-A	25	25	150	27	25	32	23	0.8	WN**0604...	3

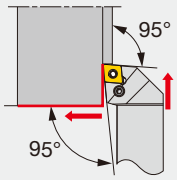
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

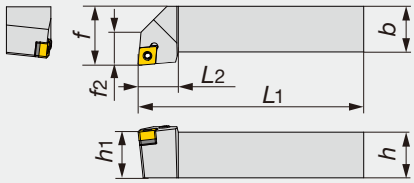
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AWLNR/L**0604-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F

ISOECOTURN
PCLNR/L-Eco

Lever lock type toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PCLNR/L2020K0904	20	20	125	20	20	25	15	0.8	CN**0904...	2
PCLNR/L2525M0904	25	25	150	25	25	32	18	0.8	CN**0904...	2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

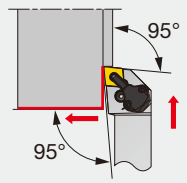
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**0904	LSC317	LCS3	P-2.5	LSP3	LCL33

Reference pages

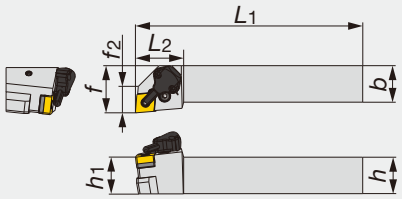
ACLNR/L-Eco, PCLNR/L-Eco: Inserts → **B050 -**, AWLNR/L-Eco: Inserts → **B095 -**

ISOECOTURN PCLNR/L-CHP-Eco

Lever lock type toolholder with 95° approach angle, for negative 80° rhombic inserts with channels for high pressure coolant



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PCLNR/L2020K0904-CHP	20	20	125	33	20	32	18	0.8	CN**0904...	2
PCLNR/L2525M0904-CHP	25	25	150	33	25	32	18	0.8	CN**0904...	2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

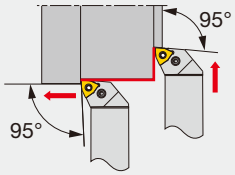
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33

SPARE PARTS

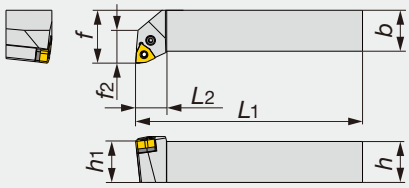
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

ISOECOTURN PWLNR/L-Eco

Lever lock type toolholder with 95° approach angle, for negative 80° trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PWLNR/L2020K0604	20	20	125	15	20	25	18	0.8	WN**0604...	2
PWLNR/L2525M0604	25	25	150	19	25	32	20	0.8	WN**0604...	2

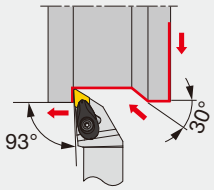
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

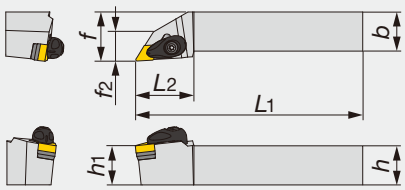
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PWLNR/L**0604	LSW312	LCS3	P-2.5	LSP3	LCL3

ISOECOTURN ADJNR/L-Eco

Double-clamp toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ADJNR/L2020K1104-A	20	20	125	30	20	25	16	0.8	DN**1104...	3
ADJNR/L2525M1104-A	25	25	150	30	25	32	19	0.8	DN**1104...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADJNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

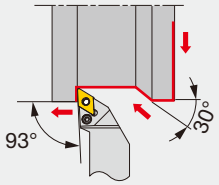
Reference pages

PCLNR/L-CHP-Eco: Inserts → **B050 -**, PWLNR/L-Eco: Inserts → **B095 -**, ADJNR/L-Eco: Inserts → **B061 -**

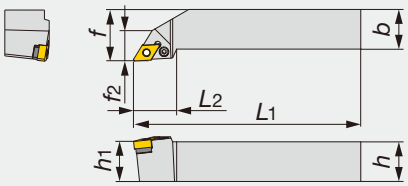
ISOETURN Eco

PDJNR/L-Eco

Lever lock type toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	f_2	r_ε**	Insert	Torque*
PDJNR/L1616H1104	16	16	100	27	16	20	16	0.8	DN**1104...	2
PDJNR/L2020K1104	20	20	125	27	20	25	16	0.8	DN**1104...	2
PDJNR/L2525M1104	25	25	150	27	25	32	19	0.8	DN**1104...	2

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

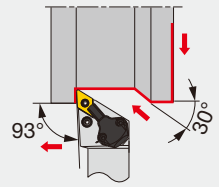
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDJNR/L**1104	ELSD32	LCS3	P-2.5	LSP3	LCL33L

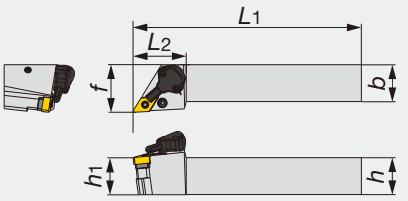
ISOETURN Eco

PDJNR/L-CHP-Eco

Lever lock type toolholder with 93° approach angle, for negative 55° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
PDJNR/L2020K1104-CHP	20	20	125	36	20	32	0.8	DN**1104...	2
PDJNR/L2525M1104-CHP	25	25	150	36	25	32	0.8	DN**1104...	2

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

SPARE PARTS

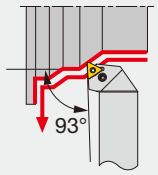
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

Reference pages

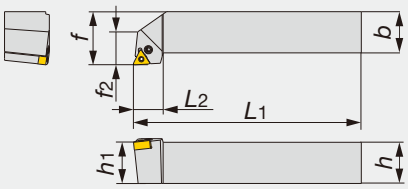
PDJNR/L-Eco, PDJNR/L-CHP-Eco: Inserts → **B061 -**

PTJNR/L-Eco

Lever lock type toolholder with 93° approach angle, for negative triangle inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PTJNR/L2525M1104	25	25	150	18	25	32	20	0.8	TN**1104...	2

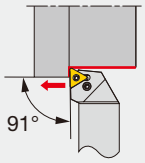
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

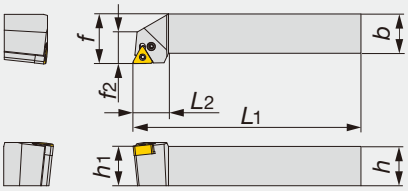
Designation	Clamping screw	Wrench	Lever
PTJNR/L2525M1104	LCS23A	P-2.5	LCL23

PTGNR/L-Eco

Lever lock type toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PTGNR/L2020K1104	20	20	125	20	20	25	15	0.8	TN**1104...	2
PTGNR/L2525M1104	25	25	150	20	25	32	22.5	0.8	TN**1104...	2

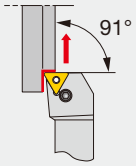
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

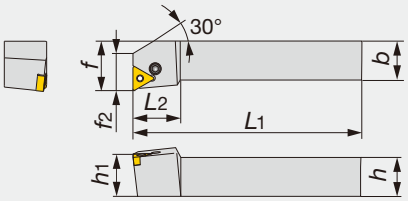
Designation	Clamping screw	Wrench	Lever
PTGNR/L**1104	LCS23A	P-2.5	LCL23

PTFNR/L-Eco

Lever lock type toolholder for facing with 91° approach angle, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PTFNR/L2020K1104	20	20	125	16	20	25	16	0.8	TN**1104...	2
PTFNR/L2525M1104	25	25	150	22	25	32	20	0.8	TN**1104...	2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

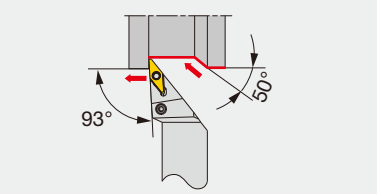
Designation	Clamping screw	Wrench	Lever
PTFNR/L**1104	LCS23A	P-2.5	LCL23

Reference pages

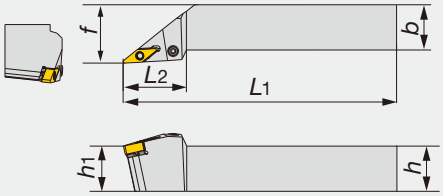
PTJNR/L-Eco, PTGNR/L-Eco, PTFNR/L-Eco: Inserts → **B080 -**

ISOETURN
PVJNR/L-Eco

Lever lock type toolholders – 93° approach angle. For negative 35° rhombic insert.



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PVJNR/L2020K1204	20	20	125	35	20	25	0.8	VN**1204...	2
PVJNR/L2525M1204	25	25	150	35	25	32	0.8	VN**1204...	2

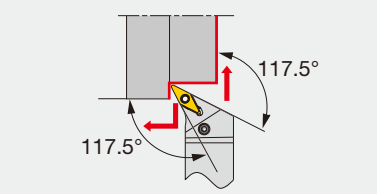
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

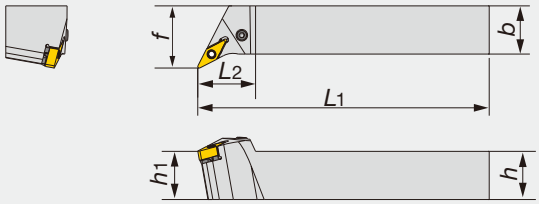
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVJNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

ISOETURN
PVQNR/L-Eco

Lever lock type toolholder – 117.5° approach angle. For negative 35° rhombic insert.



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PVQNR/L2020K1204	20	20	125	30	20	25	0.8	VN**1204...	2
PVQNR/L2525M1204	25	25	150	30	25	32	0.8	VN**1204...	2

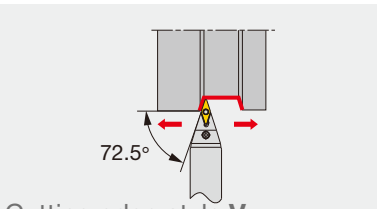
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

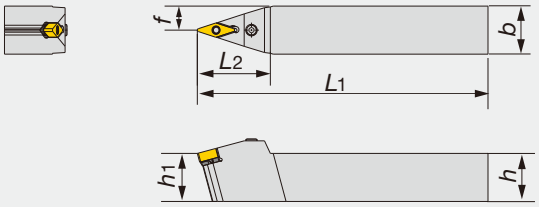
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVQNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

ISOETURN
PVVNN-Eco

Lever lock type toolholders – 72.5° approach angle. For negative 35° rhombic insert.



Cutting edge style **V**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PVVNN2020K1204	20	20	125	38	20	10	0.8	VN**1204...	2
PVVNN2525M1204	25	25	150	38	25	12.5	0.8	VN**1204...	2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

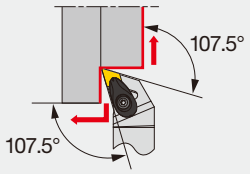
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVVNN**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

Reference pages

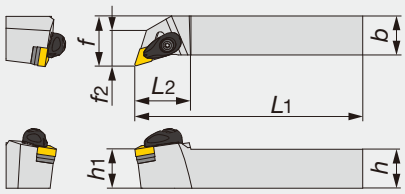
PVJNR/L-Eco, PVQNR/L-Eco, PVVNN-Eco: Inserts → **B091 -**

ISOETURN ADQNR/L-Eco

Double-clamp toolholder with 107.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ADQNR/L2020K1104-A	20	20	125	30	20	25	18	0.8	DN**1104...	3
ADQNR/L2525M1104-A	25	25	150	30	25	32	20	0.8	DN**1104...	3

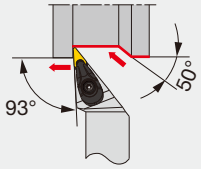
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

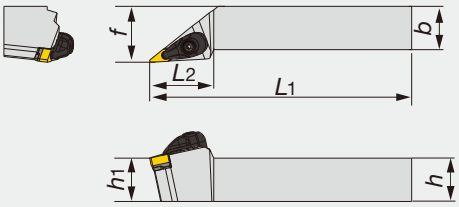
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADQNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

ISOETURN AVJNR/L-Eco

Double-clamp toolholders – 93° approach angle. For negative 35° rhombic insert.



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
AVJNR/L2020K1204-A	20	20	125	37	20	25	0.8	VN**1204...	3
AVJNR/L2525M1204-A	25	25	150	37	25	32	0.8	VN**1204...	3

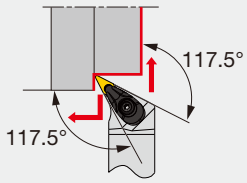
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

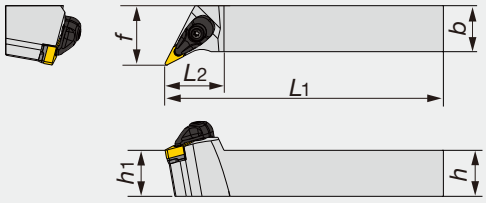
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVJNR/L**-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

ISOETURN AVQNR/L-Eco

Double-clamp toolholders – 117.5° approach angle. For negative 35° rhombic insert.



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
AVQNR/L2020K1204-A	20	20	125	32	20	25	0.8	VN**1204...	3
AVQNR/L2525M1204-A	25	25	150	32	25	32	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVQNR/L**-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

Reference pages

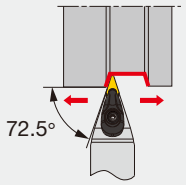
ADQNR/L-Eco: Inserts → **B061 -**

AVJNR/L-Eco, AVQNR/L-Eco: Inserts → **B091 -**

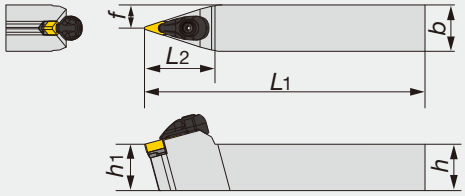
ISOECOTURN

AVVNN-Eco

Double-clamp toolholders – 72.5° approach angle. For negative 35° rhombic insert.



Cutting edge style **V**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
AVVNN2020K1204-A	20	20	125	38	20	10	0.8	VN**1204...	3
AVVNN2525K1204-A	25	25	150	38	25	13	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

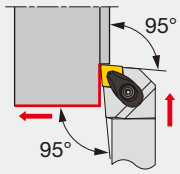
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVVNN**-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F

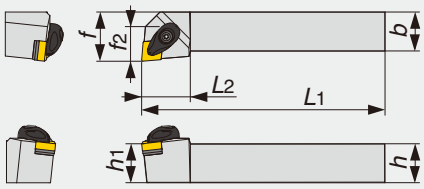
TURNINGA

ACLNR/L

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert	Torque*
ACLNR/L2020K12-A	20	20	125	26	20	25	19	0.8	CN**1204...	3
ACLNR/L2525M12-A	25	25	150	30	25	32	21	0.8	CN**1204...	3
ACLNR/L3225P12-A	32	25	170	30	32	32	21	0.8	CN**1204...	3
ACLNR/L2525M16-A	25	25	150	31	25	32	22	1.2	CN**1606...	6.4
ACLNR/L3225P16-A	32	25	170	31	32	32	22	1.2	CN**1606...	6.4
ACLNR/L3232P16-A	32	32	170	31	32	40	22	1.2	CN**1606...	6.4
ACLNR/L3232P19-A	32	32	170	40	32	40	25	1.2	CN**1906...	6.4
ACLNR/L4040S19-A	40	40	250	40	40	50	25	1.2	CN**1906...	6.4

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ACLNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F	-
ACLNR/L**16-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASC533	CSTB-5	-	KEYV-T20
ACLNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASC634	CSTB-5	-	KEYV-T20

Reference pages

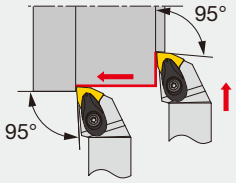
AVVNN-Eco: Inserts → **B091 -**

ACLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

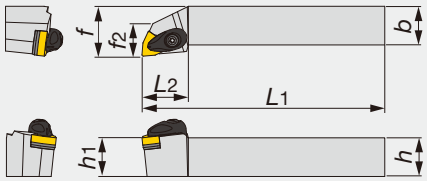
TURNING

AWLNR/L

Double-clamp toolholder with 95° approach angle, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
AWLNR/L2020K06-A	20	20	125	27	20	25	16	0.8	WN**0604...	3
AWLNR/L2020K08-A	20	20	125	30	20	25	19	0.8	WN**0804...	3
AWLNR/L2525M06-A	25	25	150	27	25	32	23	0.8	WN**0604...	3
AWLNR/L2525M08-A	25	25	150	30	25	32	21	0.8	WN**0804...	3
AWLNR/L3225P08-A	32	25	170	30	32	32	21	0.8	WN**0804...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

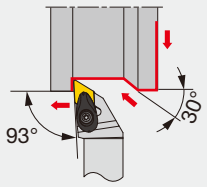
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AWLNR/L**06-A	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
AWLNR/L**08-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

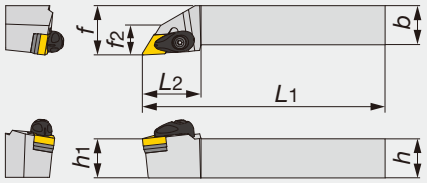
TURNING

ADJNR/L

Double-clamp toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ADJNR/L2020K15-A	20	20	125	36	20	25	17	0.8	DN**1504...	3
ADJNR/L2020K1506-A	20	20	125	36	20	25	17	0.8	DN**1506...	3
ADJNR/L2525M15-A	25	25	150	36	25	32	18	0.8	DN**1504...	3
ADJNR/L2525M1506-A	25	25	150	36	25	32	18	0.8	DN**1506...	3
ADJNR/L3225P15-A	32	25	170	36	32	32	18	0.8	DN**1504...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADJNR/L**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
ADJNR/L**1506-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

Reference pages

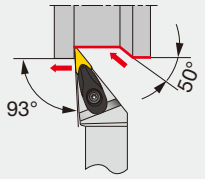
AWLNR/L: Inserts → **B095 -**, CBN → **B165**

ADJNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

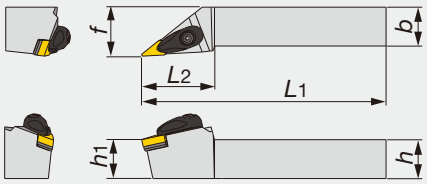
TURNING

AVJNR/L

Double-clamp toolholder with 93° approach angle, for negative 35° and 25° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
AVJNR/L2020K16-A	20	20	125	43	20	25	0.8	V/YN**1604...	3
AVJNR/L2525M16-A	25	25	150	46	25	32	0.8	V/YN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

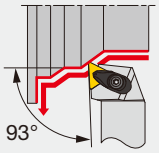
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVJNR/L**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

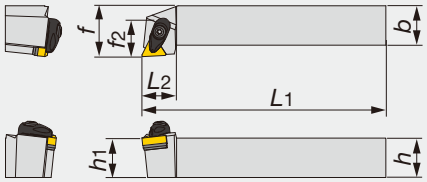
TURNING

ATJNR/L

Double-clamp toolholder with 93° approach angle, for negative triangle inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ATJNR/L2020K16-A	20	20	125	22	20	25	23	0.8	TN**1604...	3
ATJNR/L2525M16-A	25	25	150	22	25	32	25	0.8	TN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

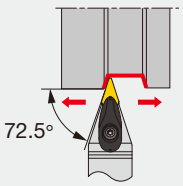
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATJNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

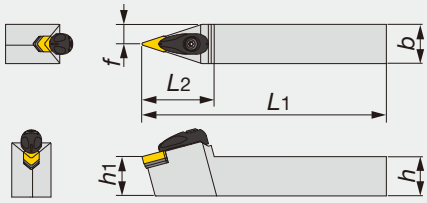
TURNING

AVVNN

Double-clamp toolholder with 72.5° approach angle, for negative 35° and 25° rhombic inserts



Cutting edge style **V**



Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
AVVNN2020K16-A	20	20	125	46	20	10	0.8	V/YN**1604...	3
AVVNN2525M16-A	25	25	150	46	25	12.5	0.8	V/YN**1604...	3

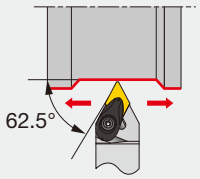
*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

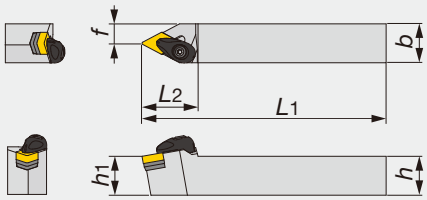
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVVNN**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

TURNING
ADPNN

Double-clamp toolholder with 62.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **P**



Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
ADPNN2020K15-A	20	20	125	36	20	7.5	0.8	DN**1504...	3
ADPNN2525M15-A	25	25	150	36	25	12.5	0.8	DN**1504...	3

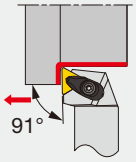
*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

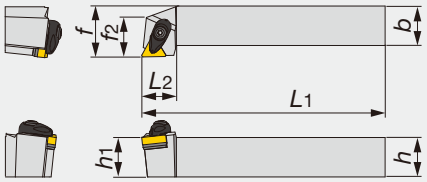
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADPNN**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F

TURNING
ATGNR/L

Double-clamp toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ATGNR/L2020K16-A	20	20	125	22	20	25	22	0.8	TN**1604...	3
ATGNR/L2525M16-A	25	25	150	22	25	32	25	0.8	TN**1604...	3
ATGNR/L2525M22-A	25	25	150	26	25	32	26	0.8	TN**2204...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATGNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATGNR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

Reference pages

AVJNR/L, AVVNN: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

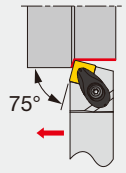
ATJNR/L, ATGNR/L: Inserts → **B080 -**, CBN → **B164**, PCD → **B176**

ADPNN: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

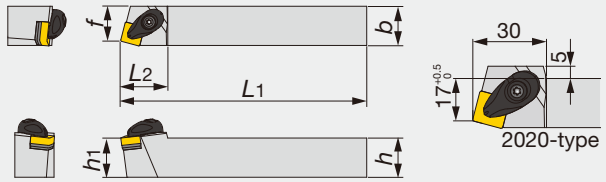
TURNING

ASBNR/L

Double-clamp toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
ASBNR/L2020K12-A	20	20	125	30	20	17	0.8	SN**1204...	3
ASBNR/L2525M12-A	25	25	150	30	25	22	0.8	SN**1204...	3
ASBNR/L2525M15-A	25	25	150	42.5	25	22	1.2	SN**1506...	6.4
ASBNR/L3232P15-A	32	32	170	42.5	32	27	1.2	SN**1506...	6.4
ASBNR/L3232P19-A	32	32	170	47.5	32	27	1.2	SN**1906...	6.4
ASBNR/L4040S19-A	40	40	250	47.5	40	35	1.2	SN**1906...	6.4

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

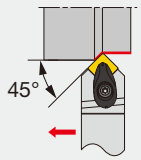
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASBNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASBNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASBNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

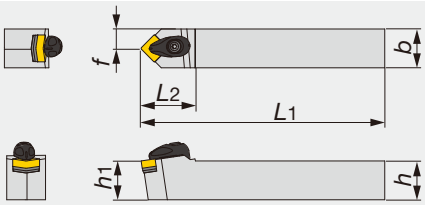
TURNING

ASDNN

Double-clamp toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
ASDNN2020K12-A	20	20	125	35	20	10	0.8	SN**1204...	3
ASDNN2525M12-A	25	25	150	35	25	12.5	0.8	SN**1204...	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

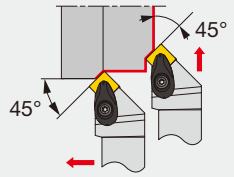
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASDNN**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

Reference pages

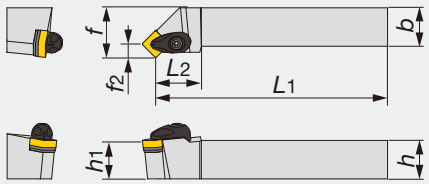
ASBNR/L, ASDNN: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

TURNING
ASSNR/L

Double-clamp toolholder with 45° approach angle (S-style), for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert	Torque*
ASSNR/L2020K12-A	20	20	125	30	20	25	8.3	0.8	SN**1204...	3
ASSNR/L2525M12-A	25	25	150	30	25	32	8.3	0.8	SN**1204...	3
ASSNR/L2525M15-A	25	25	150	25	25	32	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P15-A	32	32	170	25	32	40	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P19-A	32	32	170	27.5	32	40	12.5	1.2	SN**1906...	6.4
ASSNR/L4040S19-A	40	40	250	27.5	40	50	12.5	1.2	SN**1906...	6.4

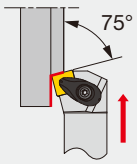
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

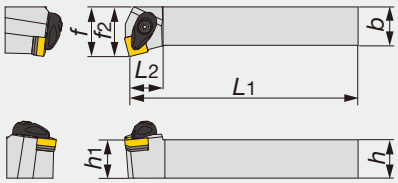
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASSNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASSNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASSNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

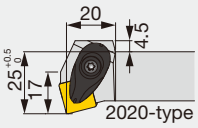
TURNING
ASKNR/L

Double-clamp toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**





Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert	Torque*
ASKNR/L2020K12-A	20	20	125	20	20	25	17	0.8	SN**1204...	3
ASKNR/L2525M12-A	25	25	150	22	25	32	21	0.8	SN**1204...	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASKNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

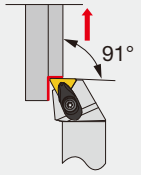
Reference pages

ASSNR/L, ASKNR/L: Inserts → **B071 -**, CBN → **B164**, PCD → **B176**

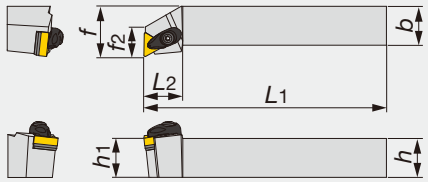
TURNING

ATFNR/L

Double-clamp toolholder for facing with 91° approach angle, negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ATFNR/L2020K16-A	20	20	125	25	20	25	18	0.8	TN**1604...	3
ATFNR/L2525M16-A	25	25	150	25	25	32	19	0.8	TN**1604...	3
ATFNR/L2525M22-A	25	25	150	29	25	32	23	0.8	TN**2204...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

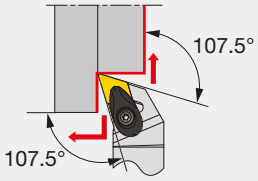
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATFNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATFNR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

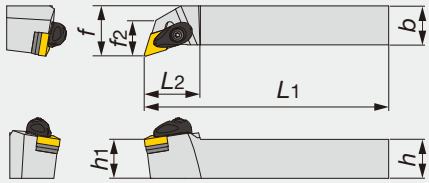
TURNING

ADQNR/L

Double-clamp toolholder with 107.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ADQNR/L2020K15-A	20	20	125	32	20	25	21	0.8	DN**1504...	3
ADQNR/L2020K1506-A	20	20	125	32	20	25	21	0.8	DN**1506...	3
ADQNR/L2525M15-A	25	25	150	36	25	32	23	0.8	DN**1504...	3
ADQNR/L2525M1506-A	25	25	150	36	25	32	23	0.8	DN**1506...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

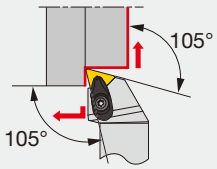
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADQNR/L**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
ADQNR/L**1506-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

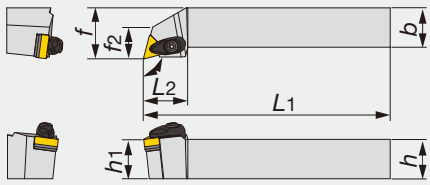
TURNING

ATQNR/L

Double-clamp toolholder with 105° approach angle, for negative triangle inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
ATQNR/L2020K16-A	20	20	125	28	20	25	18	0.8	TN**1604...	3
ATQNR/L2525M16-A	25	25	150	28	25	32	20	0.8	TN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

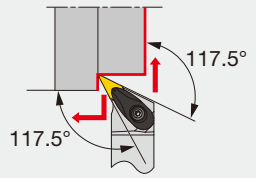
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATQNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

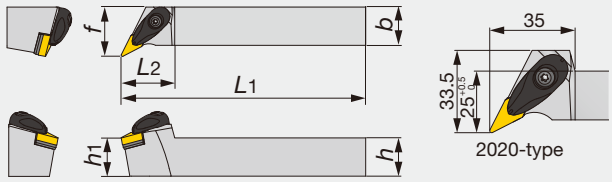
TURNING

AVQNR/L

Double-clamp toolholder with 117.5° approach angle, for negative 35° or 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
AVQNR/L2020K16-A	20	20	125	35	20	25	0.8	V/YN**1604...	3
AVQNR/L2525M16-A	25	25	150	35	25	32	0.8	V/YN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

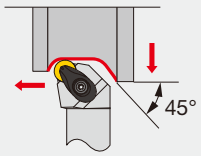
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVQNR/L...	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

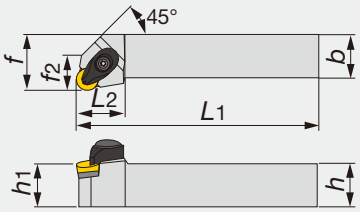
TURNING

ARGNR/L

Double-clamp toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert	Torque*
ARGNR/L2525M12-A	25	25	150	28	25	32	20	6.35	RN**120400	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ARGNR/L...	ACP4S	ACS-5W	BP-7	SP-2.5	ASR420	CSTB-3.5	T-15F

Reference pages

ATFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

ADQNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

ATQNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

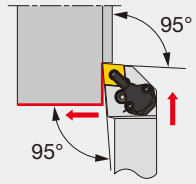
AVQNR/L: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

ARGNR/L: Inserts → **B070**

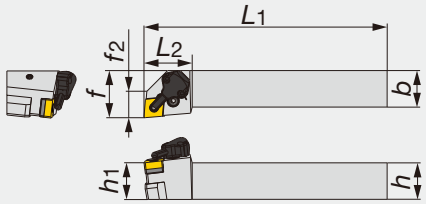
TUNGTURN JET

PCLNR/L-CHP

Lever lock type toolholder with 95° approach angle, for negative 80° rhombic inserts, with channels for high pressure coolant



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert	Torque*
PCLNR/L2020K0904-CHP	20	20	125	33	20	32	18	0.8	CN**0904...	2
PCLNR/L2020K12-CHP	20	20	125	33	20	32	18	0.8	CN**1204...	3
PCLNR/L2525M0904-CHP	25	25	150	33	25	32	18	0.8	CN**0904...	2
PCLNR/L2525M12-CHP	25	25	150	33	25	32	18	0.8	CN**1204...	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L**12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

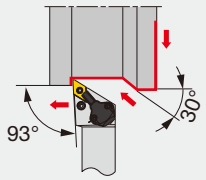
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PCLNR/L**12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

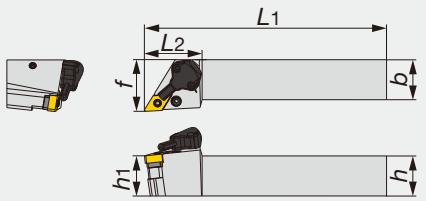
TUNGTURN JET

PDJNR/L-CHP

Lever lock type toolholder with 93° approach angle, for negative 55° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
PDJNR/L2020K1104-CHP	20	20	125	36	20	32	0.8	DN**1104...	2
PDJNR/L2020K15-CHP	20	20	125	36	20	32	0.8	DN**1504...	3
PDJNR/L2525M1104-CHP	25	25	150	36	25	32	0.8	DN**1104...	2
PDJNR/L2525M15-CHP	25	25	150	36	25	32	0.8	DN**1504...	3

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L**15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PDJNR/L**15-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

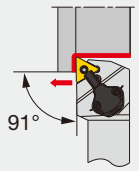
Reference pages

PCLNR/L-CHP: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

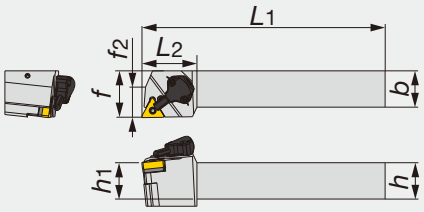
PDJNR/L-CHP: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

TUNGTURN JET
PTGNR/L-CHP

Lever lock type toolholders with 91° approach angle. For negative triangle insert. High-pressure coolant capability.



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PTGNR/L2020K1104-CHP	20	20	125	38	20	32	21	0.8	TN**1104...	2
PTGNR/L2020K16-CHP	20	20	125	38	20	32	21	0.8	TN**1604...	2
PTGNR/L2525M1104-CHP	25	25	150	38	25	32	21	0.8	TN**1104...	2
PTGNR/L2525M16-CHP	25	25	150	38	25	32	21	0.8	TN**1604...	2

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

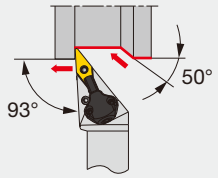
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PTGNR/L**1104-CHP	-	LCS23A	P-2.5	LSP3	LCL23
PTGNR/L**16-CHP	LST317	LCS3	P-2.5	LSP3	LCL3

SPARE PARTS

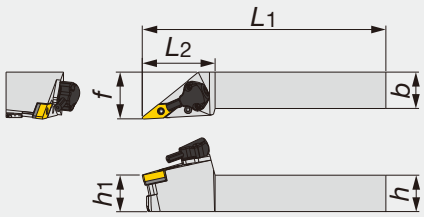
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PTGNR/L**1104-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PTGNR/L**16-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

TUNGTURN JET
PVJNR/L-CHP

Lever lock type toolholders with 93° approach angle. For negative 35° or 25° rhombic insert. High-pressure coolant capability.



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PVJNR/L2020K1204-CHP	20	20	125	50	25	32	0.8	VN**1204...	2
PVJNR/L2525M1204-CHP	25	25	150	50	25	32	0.8	VN**1204...	2
PVJNR/L2020K16-CHP	20	20	125	50	20	32	0.8	V/YN**1604...	2
PVJNR/L2525M16-CHP	25	25	150	50	25	32	0.8	V/YN**1604...	2

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVJNR/L**1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V
PVJNR/L**16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVJNR/L**1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PVJNR/L**16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

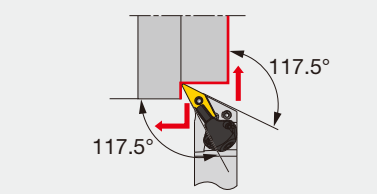
Reference pages

PTGNR/L-CHP: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

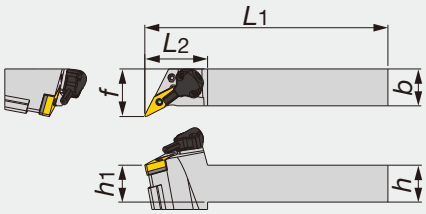
PVJNR/L-CHP: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

PVQNR/L-CHP

Lever lock type toolholders with 117.5° approach angle. For negative 35° or 25° rhombic insert. High-pressure coolant capability.



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert	Torque*
PVQNR/L2020K16-CHP	20	20	125	42.5	20	32	0.8	V/YN**1604...	2
PVQNR/L2525M16-CHP	25	25	150	42.5	25	32	0.8	V/YN**1604...	2

*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

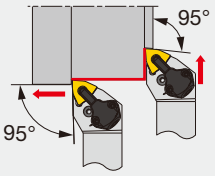
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVQNR/L**-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

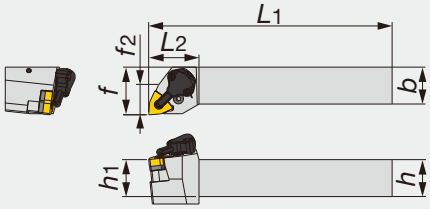
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVQNR/L**-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

PWLNR/L-CHP

Lever lock type toolholders with 95° approach angle. For negative 80° trigon insert. High-pressure coolant capability.



Cutting edge style **L**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*rε***	Insert	Torque*
PWLNR/L2020K0604-CHP	20	20	125	34	20	32	20	0.8	WN**0604...	2
PWLNR/L2020K08-CHP	20	20	125	34	20	32	20	0.8	WN**0804...	3
PWLNR/L2525M0604-CHP	25	25	150	34	25	32	20	0.8	WN**0604...	2
PWLNR/L2525M08-CHP	25	25	150	34	25	32	20	0.8	WN**0804...	3

*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PWLNR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
PWLNR/L**08-CHP	LSW42	LCS4	P-2.5	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PWLNR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PWLNR/L**08-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

Reference pages

PVQNR/L-CHP: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

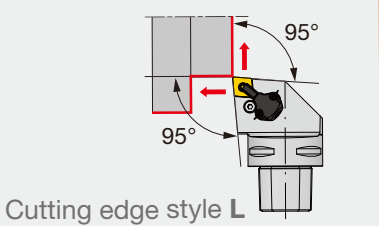
PWLNR/L-CHP, C-PWLN-CHP: Inserts → **B095 -**, CBN → **B165**

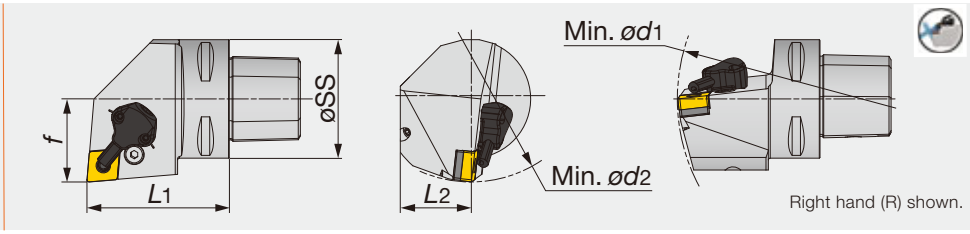
C-PCLN-CHP: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

C-PDJN-CHP: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

TUNGTURN TJET
C-PCLN-CHP

Lever lock type toolholder with TungCap connection, for negative inserts, C 80° rhombic with channels for high pressure coolant



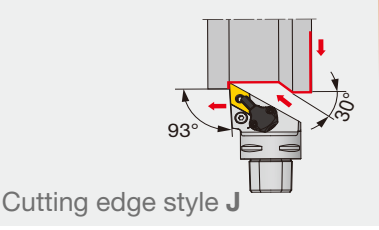


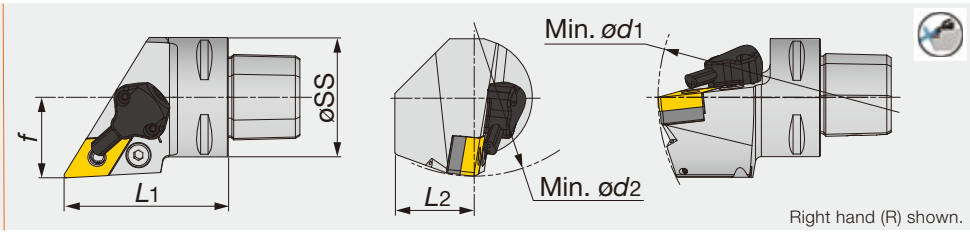
Designation	øSS	L_1	L_2	f	ød1	ød2	r_ε**	Insert
C4PCLNR/L27050-0904-CHP	40	50	25	27	140	110	0.8	CN**0904...
C4PCLNR/L27050-12-CHP	40	50	25	27	140	110	0.8	CN**1204...
C5PCLNR/L35060-12-CHP	50	60	32	35	165	110	0.8	CN**1204...
C6PCLNR/L45065-0904-CHP	63	65	41	45	190	125	0.8	CN**0904...
C6PCLNR/L45065-12-CHP	63	65	41	45	190	125	0.8	CN**1204...

**r_ε: Standard corner radius

TUNGTURN TJET
C-PDJN-CHP

Lever lock type toolholder with TungCap connection, for negative inserts, D 55° rhombic with channels for high pressure coolant



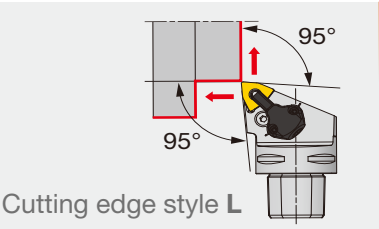


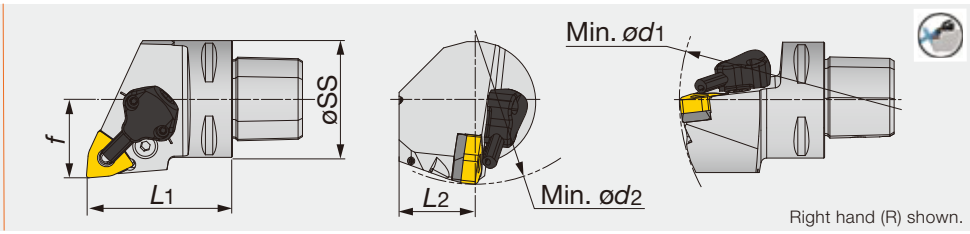
Designation	øSS	L_1	L_2	f	ød1	ød2	r_ε**	Insert
C4PDJNR/L27050-1104-CHP	40	50	25	27	140	110	0.8	DN**1104...
C4PDJNR/L27050-15-CHP	40	50	25	27	140	110	0.8	DN**1504(06)...
C5PDJNR/L35060-15-CHP	50	60	32	35	165	110	0.8	DN**1504(06)...
C6PDJNR/L45065-1104-CHP	63	65	41	45	190	110	0.8	DN**1104...
C6PDJNR/L45065-15-CHP	63	65	41	45	190	110	0.8	DN**1504(06)...

**r_ε: Standard corner radius

TUNGTURN TJET
C-PWLN-CHP

Lever lock type toolholder with TungCap connection, for negative inserts, W 80° trigon with channels for high pressure coolant





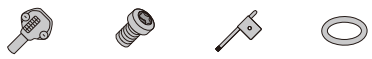
Designation	øSS	L_1	L_2	f	ød1	ød2	r_ε**	Insert
C4PWLNR/L27050-0604-CHP	40	50	25	27	140	110	0.8	WN**0604...
C4PWLNR/L27050-08-CHP	40	50	25	27	140	110	0.8	WN**0804...
C6PWLNR/L45065-08-CHP	63	65	41	45	190	110	0.8	WN**0804...

**r_ε: Standard corner radius

SPARE PARTS FOR P-TYPE

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PCLNR/L**-12-CHP	LSC42	LCS4	P-3	LSP4	LCL4
C*PWLNR/L**-08-CHP	LSW42BL	LCS4	P-3	LSP4	LCL4
C*PDJNR/L**-15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4
C*PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
C*PWLNR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
C*PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

COOLANT SET

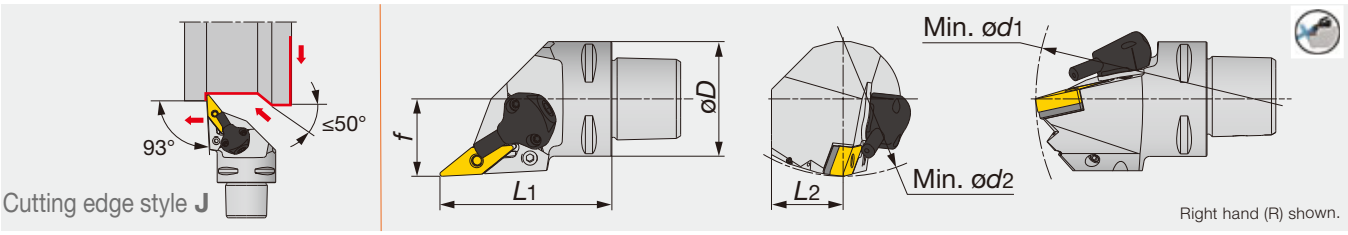


Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PCLNR/L**-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PWLNR/L**-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PDJLNR/L**-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

TUNGTURN

C-PVJNR/L-CHP

Lever lock toolholders with TungCap connection – 93° approach angle. For negative 35° or 25° rhombic insert. High-pressure coolant capability.



Designation	øD	L_1	L_2	f	ød1	ød2	r_ε**	Insert
C4PVJNR/L27060-1204-CHP	40	60	20	27	140	90	0.8	VN**1204...
C4PVJNR/L27060-16-CHP	40	60	-	27	140	110	0.8	V/YN**1604...
C6PVJNR/L45065-1204-CHP	63	65	31.5	45	190	81	0.8	VN**1204...
C6PVJNR/L45065-16-CHP	63	65	-	45	190	81	0.8	V/YN**1604...

Applicable for 14 MPa pressure coolant
**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Wrench 1	Spring pin	Lever
C*PVJNR/L**-1204-CHP	LSV212	LCS3V	P-2.5	P-3	LSP3	LCL3V
C*PVJNR/L**-16-CHP	LSV317	LCS3V	P-2.5	-	LSP3	LCL3V

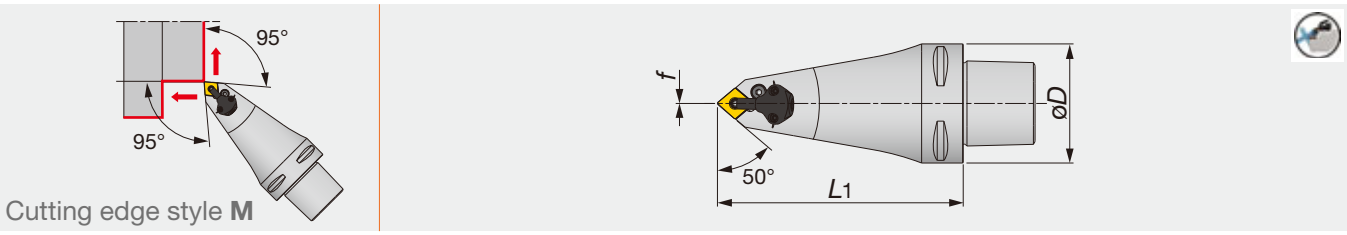
SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PVJNR/L**-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N

TUNGTURN

C-PCMNN-CHP

Lever lock toolholder with TungCap connection. For negative 80° rhombic insert. High-pressure coolant capability.



Designation	h	b	L_1	L_2	Insert
C6PCMNN00130-12-CHP	63	115	0	0.8	CN**1204...

Applicable for 14 MPa pressure coolant
**r_ε: Standard corner radius

For external turning only.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PCMNN00130-12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PCMNN00130-12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

Reference pages

C-PVJNR/L-CHP: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

C-PCMNN-CHP: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

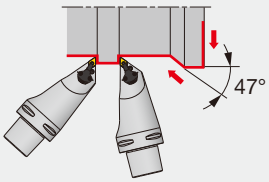
C-PDMNL-CHP: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

JSDJ2XR/L-CHP: Inserts → **B120 -**

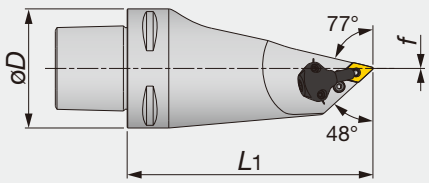
JSWL2XR/L-CHP: Inserts → **B152**

C-PDMNL-CHP

Lever lock toolholder with TungCap connection. For negative 55° rhombic insert. High-pressure coolant capability.



Cutting edge style **M**



Left hand (L) shown.

Designation	øD	L1	f	rε**	Insert
C6PDMNL00130-1104-CHP	63	130	0	0.8	DN**1104...

Applicable for 14 MPa pressure coolant
**rε: Standard corner radius

For external turning only.

SPARE PARTS

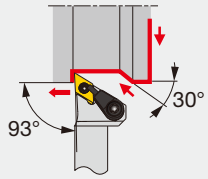
Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PDMNL00130-1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

SPARE PARTS

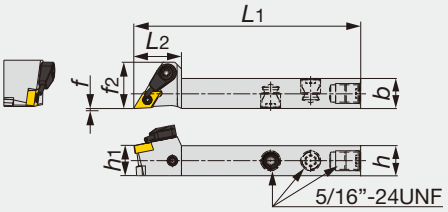
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PDMNL00130-1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

JSDJ2XR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for DXGU inserts, with channels for high pressure coolant



Cutting edge style **J2**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DXGU0703**L/R...	0.9

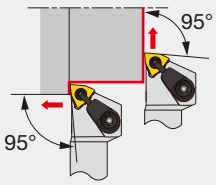
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

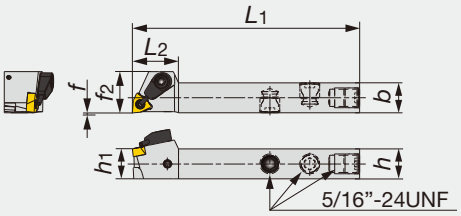
Designation	Clamping screw	Coolant unit	Wrench
JSDJ2XR/L1212F07-CHP	SR34-514	S-CU-CHP	T-7F

JSWL2XR/L-CHP

Screw-on toolholder offset with 95° approach angle, for WXGU inserts, with channels for high pressure coolant



Cutting edge style **L2**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

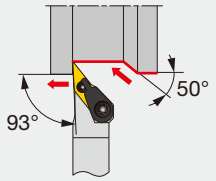
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSWL2XR/L1212F04-CHP	SR34-514	S-CU-CHP	T-7F

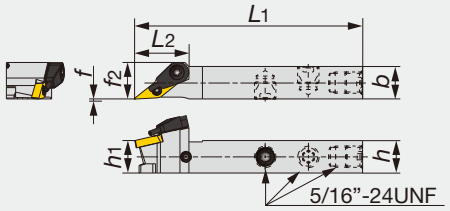
TUNGTURN JET

JSVJ2XR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for VXGU inserts, with coolant nozzle for high pressure



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

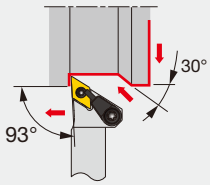
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSVJ2XR/L1212F09-CHP	SR34-508	S-CU-CHP	T-7F

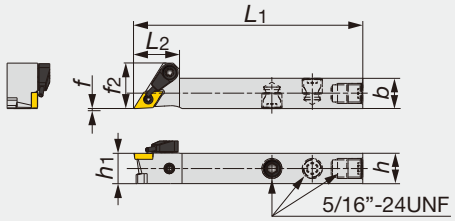
TUNGTURN JET

JSDJ2CR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for positive 55° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSDJ2CR/L1212F07-CHP	12	12	85	18	12	0	18	0.2	DC**0702...	0.9
JSDJ2CR/L1212F11-CHP	12	12	85	19	12	0	20.5	0.2	DC**11T3...	0.9

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSDJ2CR/L1212F07-CHP	CSTB-2.5	S-CU-CHP	T-8F
JSDJ2CR/L1212F11-CHP	CSTB-4SD	S-CU-CHP	T-8F

Reference pages

JSVJ2XR/L-CHP: Inserts → **B150**

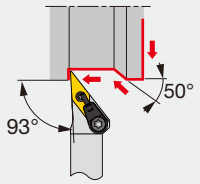
JSDJ2CR/L-CHP: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

JSVJ2BR/L-CHP: Inserts → **B145 -**, CBN → **B169 -**

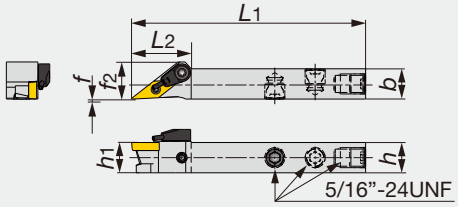
TUNGTURN JET

JSVJ2BR/L-CHP

Screw-on toolholder without offset with 93° approach angle, for positive 35° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSVJ2BR/L1212F11-CHP	12	12	85	23.6	12	0	14.7	0.2	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSVJ2BR/L1212F11-CHP	CSTB-2.5	S-CU-CHP	T-8F

PARTS FOR COOLANT HOSE

Connecting hose

Fig. 1

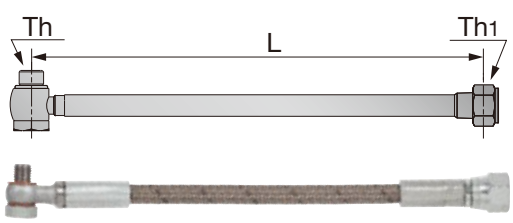
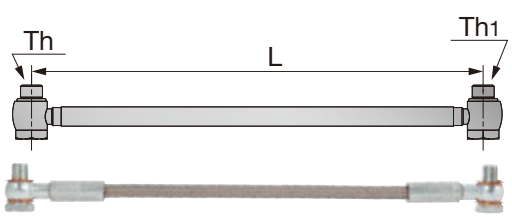
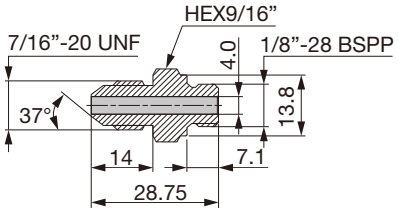


Fig. 2



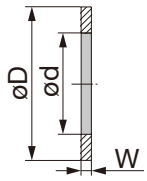
Designation	L	Th	Th1	Max. pressure (Mpa)	Fig.
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-5/16-7/16-200BS	200	5/16”-24UNF	7/16"-20 UNF	20	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16”-24UNF	G1/8"-28 BSPP	20	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2

Connector



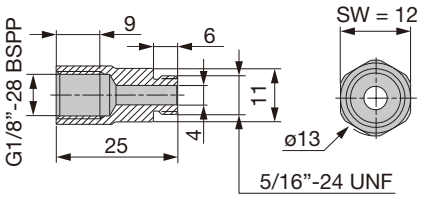
Designation
CHP-NIPPLE-G1/8-7/16UNF

Seal washer



Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11	8	1
CHP-COPPER-SEAL5/16-2.5	11	8	2.5

Connector for small lathe with seal washer

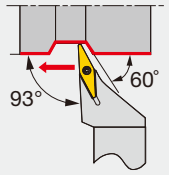


Designation
CHP-CONECTOR/5/16-G1/8

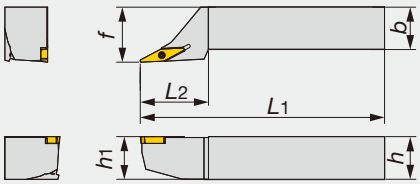
Y-PRO SERIES

SYJBR/L

Screw-on clamp toolholder with 93° approach angle, for positive 25° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SYJBR/L2020K16	20	20	125	35	20	25	0.8	YWMT16T3...
SYJBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

**rε: Standard corner radius

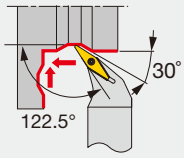
SPARE PARTS

Designation	Clamping screw	Wrench
SYJBR/L...	CSTB-2.5L080	T-8F

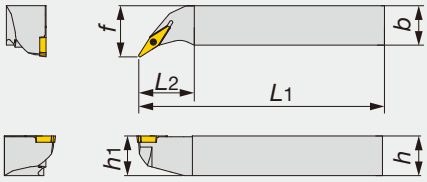
Y-PRO SERIES

SYQBR/L

Screw-on clamp toolholder with 122.5° approach angle, for positive 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SYQBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYQBR/L2525M16	25	25	150	35	25	32	0.8	YWMT16T3...

**rε: Standard corner radius

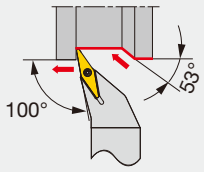
SPARE PARTS

Designation	Clamping screw	Wrench
SYQBR/L...	CSTB-2.5L080	T-8F

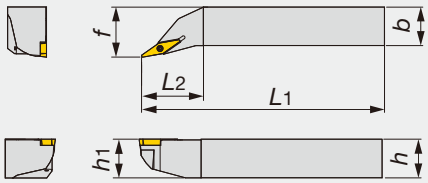
Y-PRO SERIES

SYHBR/L

Screw-on clamp toolholder with 100° approach angle, for positive 25° rhombic inserts



Cutting edge style **H**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SYHBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYHBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

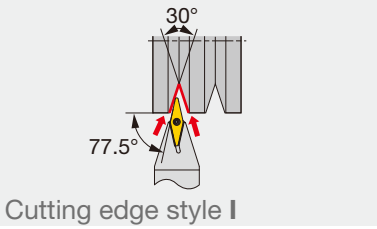
**rε: Standard corner radius

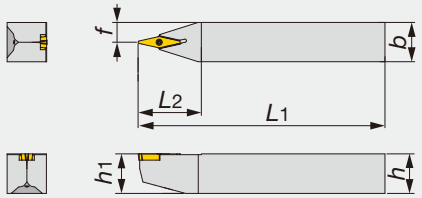
SPARE PARTS

Designation	Clamping screw	Wrench
SYHBR/L...	CSTB-2.5L080	T-8F

SYIBN

Screw-on clamp toolholder with 77.5° approach angle, for positive 25° rhombic inserts





Designation	h	b	L1	L2	h1	f	rε**	Insert
SYIBN2020K16	20	20	125	32	20	10	0.8	YWMT16T3...
SYIBN2525M16	25	25	150	40	25	12.5	0.8	YWMT16T3...

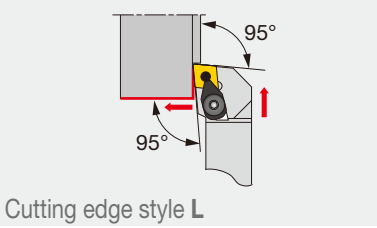
**rε: Standard corner radius

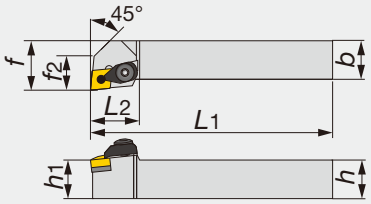
SPARE PARTS

Designation	Clamping screw	Wrench
SYIBN...	CSTB-2.5L080	T-8F

DCLNR/L

"One-Double" toolholder with 95° approach angle, for negative 80° rhombic inserts





Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
DCLNR/L2020K12	20	20	125	30	20	25	18	0.8	CN**1204...
DCLNR/L2525M12	25	25	150	30	25	32	18	0.8	CN**1204...
DCLNR/L3225P12	32	25	170	30	32	32	18	0.8	CN**1204...

Note: Except for 57-type chipbreaker inserts
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DCLNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSC42	BP-10	LSP4	P-3	P-4

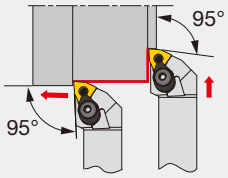
Reference pages

SYJBR/L, SYQBR/L, SYHBR/L, SYIBN: Inserts → **B153**

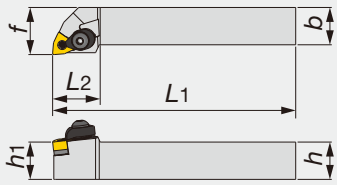
DCLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

DWLNR/L

"One-Double" toolholder with 95° approach angle, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
DWLNR/L2020K06	20	20	125	25.5	20	25	0.8	WN**0604...
DWLNR/L2020K08	20	20	125	31	20	25	0.8	WN**0804...
DWLNR/L2525M06	25	25	150	26	25	32	0.8	WN**0604...
DWLNR/L2525M08	25	25	150	31	25	32	0.8	WN**0804...
DWLNR/L3225P08	32	25	170	30	32	32	0.8	WN**0804...

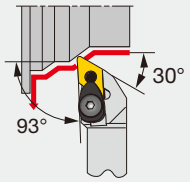
Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

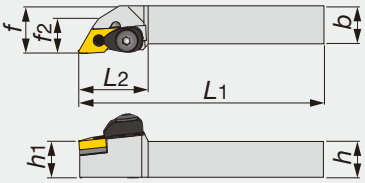
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DWLNR/L**06	DCPM-33	LCL33	DPIS33	DLCS33	LSW312	BP-9	LSP3	P-2.5	P-3
DWLNR/L**08	DCPM-43	DLCL43	DPIS43	DLCS43	LSW42	BP-10	LSP4	P-3	P-4

DDJNR/L

"One-Double" toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	f_2	r_ε**	Insert
DDJNR/L2020K15	20	20	125	38	20	25	19	0.8	DN**1504...
DDJNR/L2020K1506	20	20	125	38	20	25	19	0.8	DN**1506...
DDJNR/L2525M15	25	25	150	38	25	32	19	0.8	DN**1504...
DDJNR/L2525M1506	25	25	150	38	25	32	19	0.8	DN**1506...
DDJNR/L3225P15	32	25	170	38	32	32	19	0.8	DN**1504...
DDJNR/L3225P1506	32	25	170	38	32	32	19	0.8	DN**1506...

Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DDJNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDJNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

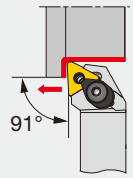
Reference pages

DWLNR/L: Inserts → **B095 -**, CBN → **B165**

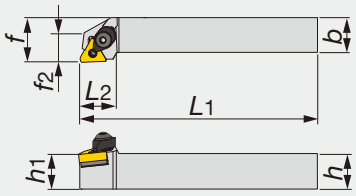
DDJNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

DTGNR/L

"One-Double" toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert
DTGNR/L2020K16	20	20	125	21	20	25	16	0.8	TN**1604...
DTGNR/L2525M16	25	25	150	21	25	32	21	0.8	TN**1604...
DTGNR/L2525M22	25	25	150	28	25	32	25	0.8	TN**2204...

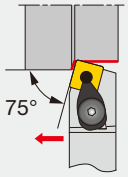
Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

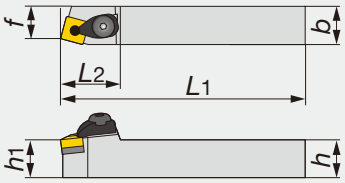
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTGNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTGNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

DSBNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
DSBNR/L2020K12	20	20	125	35	20	17	0.8	SN**1204...
DSBNR/L2525M12	25	25	150	35	25	22	0.8	SN**1204...

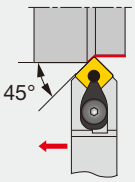
Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

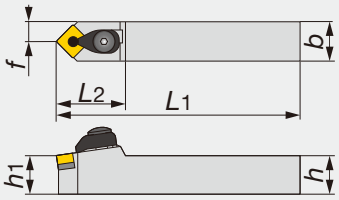
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSBNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

DSDNN

"One-Double" toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
DSDNN2020K12	20	20	125	36	20	10	0.8	SN**1204...
DSDNN2525M12	25	25	150	36	25	12.5	0.8	SN**1204...

Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSDNN...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

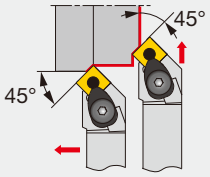
Reference pages

DTGNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

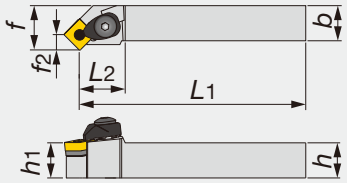
DSBNR/L, DSDNN: Inserts → **B071 -**, CBN → **B164**, PCD → **B176**

DSSNR/L

"One-Double" toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
DSSNR/L2020K12	20	20	125	34.3	20	25	8.3	0.8	SN**1204...
DSSNR/L2525M12	25	25	150	34.3	25	32	8.3	0.8	SN**1204...

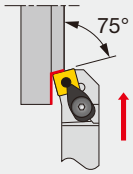
Note: Except for 57-type chipbreaker inserts
**rε: Standard corner radius

SPARE PARTS

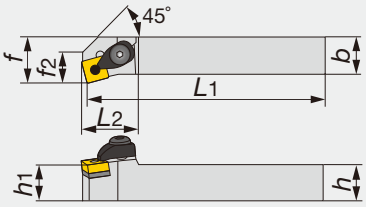
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSSNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

DSKNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
DSKNR/L2020K12	20	20	125	31	20	25	17	0.8	SN**1204...
DSKNR/L2525M12	25	25	150	31	25	32	17	0.8	SN**1204...

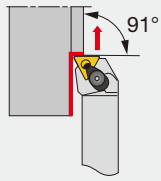
Note: Except for 57-type chipbreaker inserts
**rε: Standard corner radius

SPARE PARTS

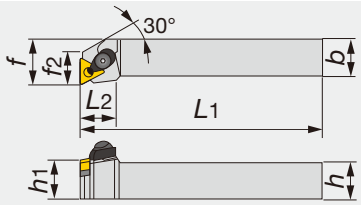
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSKNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

DTFNR/L

"One-Double" toolholder for facing with 91° approach angle, negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
DTFNR/L2020K16	20	20	125	23	20	25	18.5	0.8	TN**1604...
DTFNR/L2525M16	25	25	150	23	25	32	20	0.8	TN**1604...
DTFNR/L2525M22	25	25	150	31	25	32	24	0.8	TN**2204...

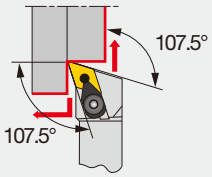
Note: Except for 57-type chipbreaker inserts
**rε: Standard corner radius

SPARE PARTS

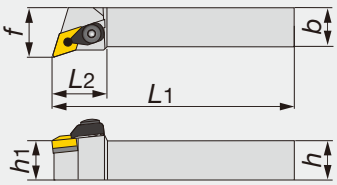
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTFNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTFNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

DDQNR/L

"One-Double" toolholder with 107.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **Q**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
DDQNR/L2020K15	20	20	125	35	20	25	0.8	DN**1504...
DDQNR/L2020K1506	20	20	125	35	20	25	0.8	DN**1506...
DDQNR/L2525M15	25	25	150	35	25	32	0.8	DN**1504...
DDQNR/L2525M1506	25	25	150	35	25	32	0.8	DN**1506...
DDQNR/L3225P15	32	25	170	35	32	32	0.8	DN**1504...
DDQNR/L3225P1506	32	25	170	35	32	32	0.8	DN**1506...

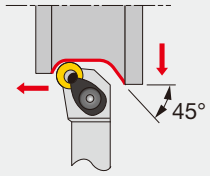
Note: Except for 57-type chipbreaker inserts
**r_ε: Standard corner radius

SPARE PARTS

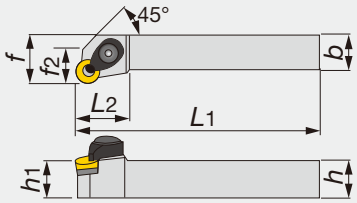
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DDQNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDQNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

DRGNR/L

"One-Double" toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	f_2	r_ε**	Insert
DRGNR/L2525M12	25	25	150	28	25	32	18	6.35	RN**120400

**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DRGNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSR42	BP-10	LSP4	P-3	P-4

Reference pages

DSSNR/L, DSKNR/L: Inserts → **B071 -**, CBN → **B164**, PCD → **B176**

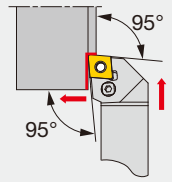
DTFNR/L: Inserts → **B080 -**, CBN → **B164**, PCD → **B176**

DDQNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

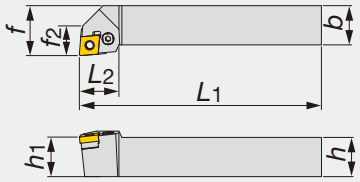
DRGNR/L: Inserts → **B070**

PCLNR/L

Lever lock type toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
PCLNR/L1616H09	16	16	100	20	16	20	15	0.8	CN**0903...
PCLNR/L2020K09	20	20	125	20	20	25	15	0.8	CN**0903...
PCLNR/L2525M09	25	25	150	20	25	32	15	0.8	CN**0903...
PCLNR/L1616	16	16	100	26	16	20	–	0.8	CN**1204...
PCLNR/L2020	20	20	125	28	20	25	18	0.8	CN**1204...
PCLNR/L2525M4	25	25	150	28	25	32	18	0.8	CN**1204...
PCLNR/L3225P4	32	25	170	28	32	32	18	0.8	CN**1204...
PCLNR/L3232	32	32	170	40	32	40	25	1.2	CN**1906...
PCLNR/L1616H12E	16	16	100	26	16	20	–	0.8	CN**1204...
PCLNR/L2020K12E	20	20	125	28	20	25	18	0.8	CN**1204...
PCLNR/L2525M12E	25	25	150	28	25	32	18	0.8	CN**1204...
PCLNR/L3225P12E	32	25	170	28	32	32	18	0.8	CN**1204...
PCLNR/L2525M16E	25	25	150	31	25	25	–	1.2	CN**1606...
PCLNR/L3225P16E	32	25	150	31	32	32	–	1.2	CN**1606...
PCLNR3232P16E	32	32	170	31	32	40	–	1.2	CN**1606...
PCLNR/L3232P19E	32	32	170	40	32	40	25	1.2	CN**1906...

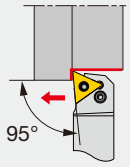
**rε: Standard corner radius

SPARE PARTS

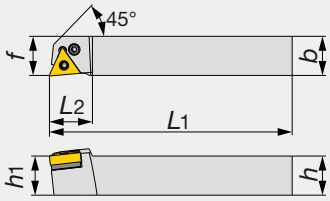
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L1616H09	ELSC32	LCS3	P-2.5	LSP3L	LCL33
PCLNR/L2020K09	ELSC32	LCS3	P-2.5	LSP3L	LCL33
PCLNR/L2525M09	ELSC32	LCS3	P-2.5	LSP3L	LCL33
PCLNR/L1616	LSC42	LCS4CA	P-3	LSP4	LCL4
PCLNR/L2020	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L2525M4	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L3225P4	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L3232	LSC63	LCS6	P-4	LSP6	LCL6
PCLNR/L1616H12E	ELSC42	LCS4CA	P-3	LSP4	LCL4
PCLNR/L2020K12E	ELSC42	LCS4	P-3	LSP4S	LCL43M
PCLNR/L2525M12E	ELSC42	LCS4	P-3	LSP4S	LCL43M
PCLNR/L3225P12E	ELSC42	LCS4	P-3	LSP4S	LCL43M
PCLNR/L2525M16E	ELSC53	LCS5	P-3	LSP6C	LCL5
PCLNR/L3225P16E	ELSC53	LCS5	P-3	LSP6C	LCL5
PCLNR/L3232P16E	ELSC53	LCS5	P-3	LSP6C	LCL5
PCLNR/L3232P19E	ELSC63	LCS6	P-4	LSP6	LCL6

PTL2NR/L

No-offset Lever-lock clamp toolholder with 95° approach approach angle, for negative 60° triangular inserts



Cutting edge style **L2**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PTL2NR/L2020H16	20	20	100	22	20	20	0.4	TN**1604...	2

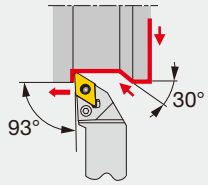
*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

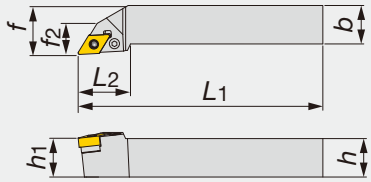
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTL2NR/L...	LST317 D30	LCS3	P-2.5	LSP3	LCL3

PDJNR/L

Lever lock type toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert
PDJNR/L1616H11	16	16	100	27	16	20	16	0.8	DN**1104...
PDJNR/L2020K11	20	20	125	27	20	25	16	0.8	DN**1104...
PDJNR/L2020	20	20	125	34	20	25	19	0.8	DN**1504...
PDJNR2020K15E	20	20	125	36	20	25	-	0.8	DN**1506...
PDJNR/L2520	25	20	150	34	25	25	19	0.8	DN**1504...
PDJNR/L2525M11	25	25	150	27	25	32	19	0.8	DN**1104...
PDJNR/L2525	25	25	150	34	25	32	19	0.8	DN**1504...
PDJNR/L2525M15E	25	25	150	36	25	32	-	0.8	DN**1506...
PDJNR/L3225	32	25	170	32	32	32	19	0.8	DN**1504...
PDJNR3225P15E	32	25	170	36	32	34	-	0.8	DN**1506...

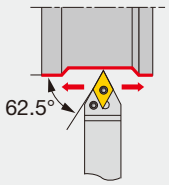
**r_ε: Standard corner radius

SPARE PARTS

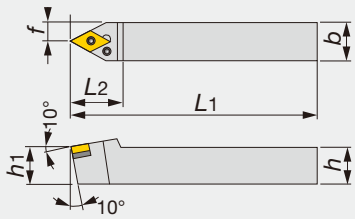
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDJNR/L1616H11, 2020K11	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L2020	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR2020K15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L2520	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L3225	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR3225P15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

PDPNN

Lever lock type toolholder with 62.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **P**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
PDPNN2525	25	25	150	36	25	12.5	0.8	DN**1504...
PDPNN2525M15E	25	25	150	36	25	12.5	0.8	DN**1506...

**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDPNN2525	LSD42	LCS4	P-3	LSP4	LCL4
PDPNN2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

Reference pages

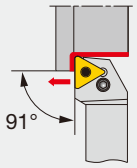
PCLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176 -**

PTL2NR/L: Inserts → **B080 -**, CBN → **B164**, PCD → **B176**

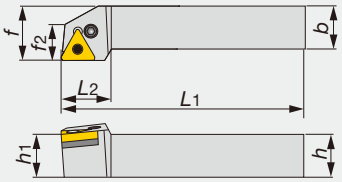
PDJNR/L, PDPNN: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

PTGNR/L

Lever lock type toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert
PTGNR/L1616	16	16	100	22	16	20	16	0.8	TN**1604...
PTGNR/L2020	20	20	125	22	20	25	16	0.8	TN**1604...
PTGNR/L2525M3	25	25	150	22	25	32	21	0.8	TN**1604...
PTGNR/L2525M4	25	25	150	28	25	32	24	0.8	TN**2204...
PTGNR3225P4	32	25	170	28	32	32	24	0.8	TN**2204...

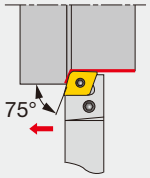
**r_ε: Standard corner radius

SPARE PARTS

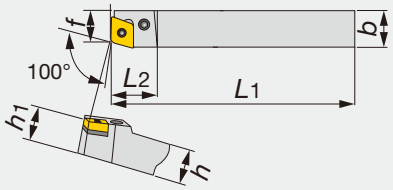
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTGNR/L1616, 2020	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L2525M3	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L2525M4	LST42	LCS4	P-3	LSP4	LCL4
PTGNR3225P4	LST42	LCS4	P-3	LSP4	LCL4

PCBNR/L

Lever lock type toolholder with 75° approach angle, for negative 80° rhombic inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert
PCBNR/L2525	25	25	150	28	25	22	0.8	CN**1204...

Note: 100° corners are used
**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCBNR/L2525	LSC42	LCS4	P-3	LSP4	LCL4

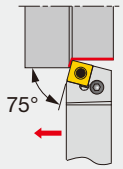
Reference pages

PTGNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

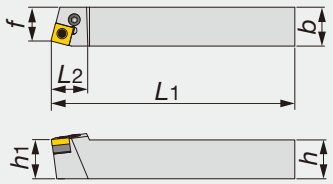
PCBNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

PSBNR/L

Lever lock type toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
PSBNR/L1616	16	16	100	22	16	13	0.8	SN**0903...
PSBNR/L2020	20	20	125	28	20	17	0.8	SN**1204...
PSBNR/L2525	25	25	150	24	25	22	0.8	SN**1204...
PSBNR/L3232	32	32	170	40	32	27	1.2	SN**1906...

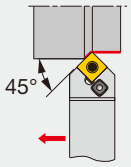
**rε: Standard corner radius

SPARE PARTS

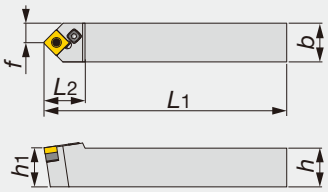
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSBNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSBNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSBNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

PSDNN

Lever lock type toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Designation	h	b	L1	L2	h1	f	rε**	Insert
PSDNN1616	16	16	100	22	16	8	0.8	SN**0903...
PSDNN2020	20	20	125	30	20	10.3	0.8	SN**1204...
PSDNN2525	25	25	150	30	25	12.8	0.8	SN**1204...

**rε: Standard corner radius

SPARE PARTS

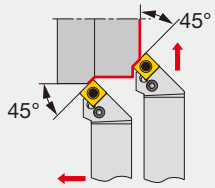
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSDNN1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSDNN2020	LSS42	LCS4	P-3	LSP4	LCL4
PSDNN2525	LSS42	LCS4	P-3	LSP4	LCL4

Reference pages

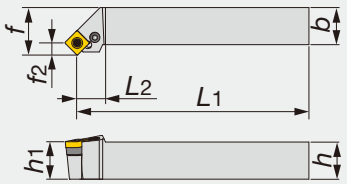
PSBNR/L, PSDNN: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

PSSNR/L

Lever lock type toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert
PSSNR/L1616	16	16	94	16	16	20	6.1	0.8	SN**0903...
PSSNR/L2020	20	20	116	21	20	25	8.3	0.8	SN**1204...
PSSNR/L2525	25	25	141	21	25	32	8.3	0.8	SN**1204...
PSSNR3225	32	25	161	21	32	32	8.3	0.8	SN**1204...
PSSNR/L3232	32	32	157.5	27.5	32	40	12.5	1.2	SN**1906...

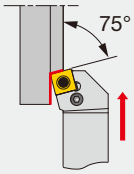
**r_ε: Standard corner radius

SPARE PARTS

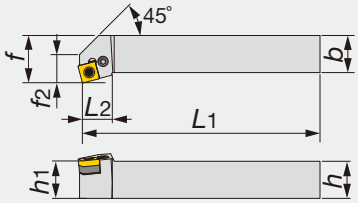
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSSNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSSNR/L2020	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L**25	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

PSKNR/L

Lever lock type toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert
PSKNR/L1616	16	16	100	17	16	25	15	0.8	SN**0903...
PSKNR/L2020	20	20	125	22	20	25	17	0.8	SN**1204...
PSKNR/L2525	25	25	150	22	25	32	17	0.8	SN**1204...
PSKNR3232	32	32	170	40	32	40	27	1.2	SN**1906...

**r_ε: Standard corner radius

SPARE PARTS

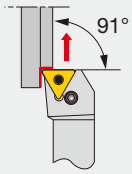
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSKNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSKNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSKNR3232	LSS63	LCS6	P-4	LSP6	LCL6

Reference pages

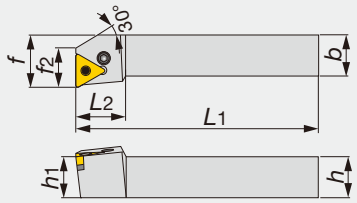
PSSNR/L, PSKNR/L: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

PTFNR/L

Lever lock type toolholder for facing with 91° approach angle, negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
PTFNR/L1616	16	16	100	22	16	20	16	0.8	TN**1604...
PTFNR/L2020	20	20	125	22	20	25	16	0.8	TN**1604...
PTFNR/L2525M3	25	25	150	22	25	32	20	0.8	TN**1604...
PTFNR/L2525M4	25	25	150	28	25	32	24	0.8	TN**2204...
PTFNR/L3225P4	32	25	170	28	32	32	24	0.8	TN**2204...

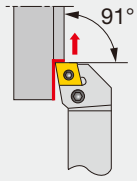
**rε: Standard corner radius

SPARE PARTS

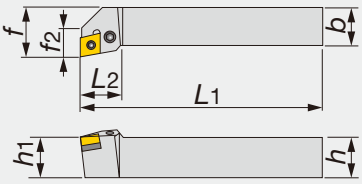
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTFNR/L1616, 2020	LST317	LCS3	P-2.5	LSP3	LCL3
PTFNR/L2525M3	LST317	LCS3	P-2.5	LSP3	LCL3
PTFNR/L**25*4	LST42	LCS4	P-3	LSP4	LCL4

PCFNR/L

Lever lock type toolholder for facing with 91° approach angle, negative 80° rhombic inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
PCFNR/L2020	20	20	125	28	20	25	18	0.8	CN**1204...
PCFNR/L2525	25	25	150	28	25	32	18	0.8	CN**1204...

**rε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCFNR/L...	LSC42 D30	LCS4	P-3	LSP4	LCL4

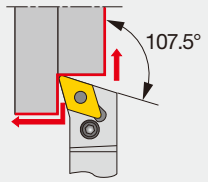
Reference pages

PTFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

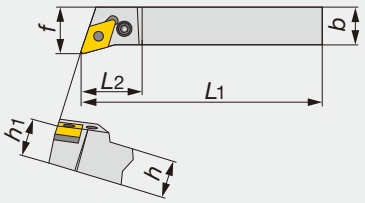
PCFNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

PDQNR/L

Lever lock type toolholder with 107.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
PDQNR/L2525	25	25	150	32	25	32	0.8	DN**1504...

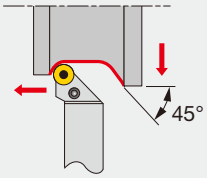
**r_ε: Standard corner radius

SPARE PARTS

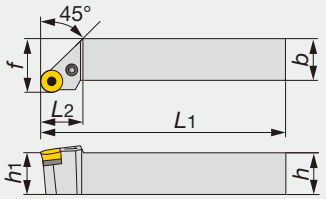
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDQNR/L...	LSD42 D30	LCS4	P-3	LSP4	LCL4

PRGNR/L

Lever lock type toolholder with 91° approach angle, for negative round inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
PRGNR/L2020	20	20	125	19	20	25	4.76	RNMG090300-61
PRGNR/L2525M4	25	25	150	25	25	32	6.35	RN**120400

**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGNR/L2020	LSR32	LCS3	P-2.5	LSP3	LCL3
PRGNR/L2525M4	LSR42	LCS4	P-3	LSP4	LCL4

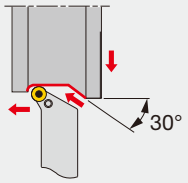
Reference pages

PDQNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

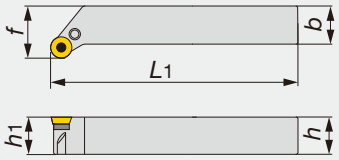
PRGNR/L: Inserts → **B070**

PRGCR/L

Lever lock type toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

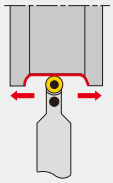
Designation	*h*	*b*	*L*1	*h*1	*f*	Insert
PRGCR/L2020K10	20	20	125	20	25	RCMM1003...
PRGCR/L2525M12	25	25	150	25	32	RCM*1204...
PRGCR/L3225P16	32	25	170	32	32	RCM*1606...
PRGCR/L3232P20	32	32	170	32	40	RCM*2006...

SPARE PARTS

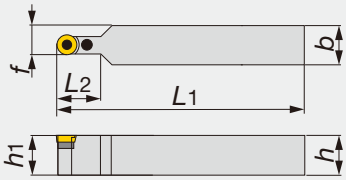
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGCR/L2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRGCR/L2525M12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRGCR/L3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRGCR/L3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C

PRDCN

Lever lock type toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
PRDCN2020K10	20	20	125	22	20	15	RCMM1003...
PRDCN2525M12	25	25	150	24	25	18.5	RCM*1204...
PRDCN3225P12	32	25	170	24	32	18.5	RCM*1204...
PRDCN3225P16	32	25	170	28	32	20.5	RCM*1606...
PRDCN3232P20	32	32	170	32	32	26	RCM*2006...
PRDCN4040R25	40	40	200	42	40	32.5	RCM*2507...

SPARE PARTS

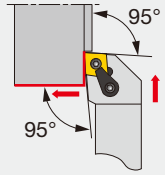
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRDCN2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRDCN**25*12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRDCN3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRDCN3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C
PRDCN4040R25	LSR84C	LCS8C	P-4	LSP6	LCL8C

Reference pages

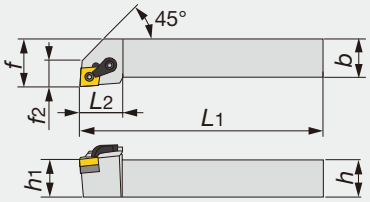
PRGCR/L, PRDCN: Inserts → **B124 -**

MCLNR/L

Multi-clamp toolholder with 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
MCLNR/L2525M12	25	25	150	32	25	32	18	0.8	CN**1204...

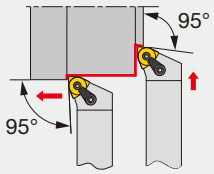
**rε: Standard corner radius

SPARE PARTS

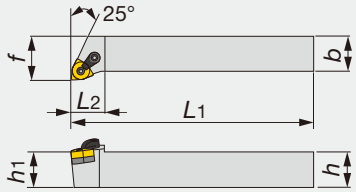
Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MCLNR/L...	MCPM-21	MLP46	MCS625-3	MSC-432	P-3	P-2.5F

MWLNR/L

Multi-clamp toolholder with 95° approach angle, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
MWLNR2020K08	20	20	125	25	20	25	0.8	WN**0804...
MWLNR/L2525M08	25	25	150	25	25	32	0.8	WN**0804...

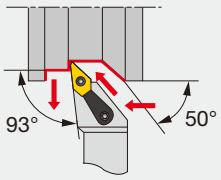
**rε: Standard corner radius

SPARE PARTS

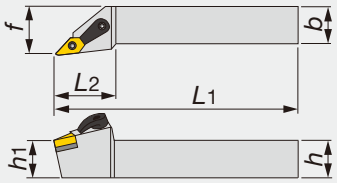
Designation	Clamp	Pin	Right-left screw	Shim	Wrench
MWLNR/L...	MCPM-6	MLP46	MCS520-2.5	MSW-432	P-2.5

MVJNR/L

Multi-clamp toolholder with 93° approach angle, for negative 35° or 25° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
MVJNR/L2020K16	20	20	125	42	20	25	0.8	V/YN**1604...
MVJNR/L2525M16	25	25	150	42	25	32	0.8	V/YN**1604...
MVJNR/L3225P16	32	25	170	42	32	32	0.8	V/YN**1604...
MVJNR/L3232P16	32	32	170	42	32	40	0.8	V/YN**1604...

**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MVJNR/L...	MCPM-22	MLP34L	MCS625-3	MSV-322	P-3	P-2F

Reference pages

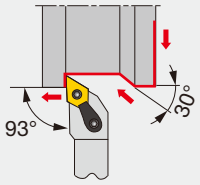
MCLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

MWLNR/L: Inserts → **B095 -**, CBN → **B165**

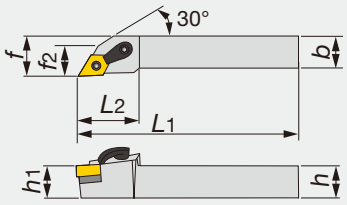
MVJNR/L: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

MDJNR

Multi-clamp toolholder with 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert
MDJNR2525M15	25	25	150	38	25	32	19	0.8	DN**15...

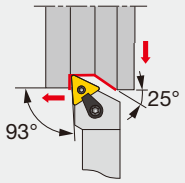
**rε: Standard corner radius

SPARE PARTS

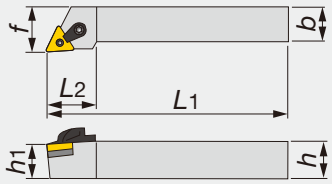
Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MDJNR2525M15	MCPM-22	MLP46L	MCS625-3	MSD-432	P-3	P-2.5F

MTJNR

Multi-clamp toolholder with 93° approach angle, for negative triangle inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
MTJNR2525M16	25	25	150	28	25	32	0.8	TN**16...

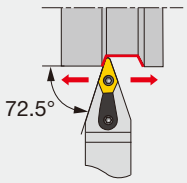
**rε: Standard corner radius

SPARE PARTS

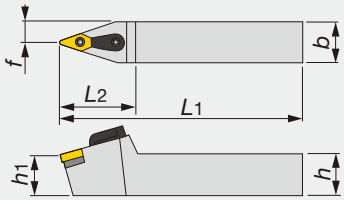
Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MTJNR2525M16	MCPM-21	MLP34L	MCS625-3	MST-322	P-3	P-2F

MVVNN

Multi-clamp toolholder with 72.5° approach angle, for negative 35° or 25° rhombic inserts



Cutting edge style **V**



Designation	h	b	L1	L2	h1	f	rε**	Insert
MVVNN2020K16	20	20	125	48	20	10	0.8	V/YN**1604...
MVVNN2525M16	25	25	150	48	25	12.5	0.8	V/YN**1604...
MVVNN3225P16	32	25	170	48	32	12.5	0.8	V/YN**1604...

**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MVVNN...	MCPM-30	MLP34L	MCS828-4	MSV-322	P-4	P-2F

Reference pages

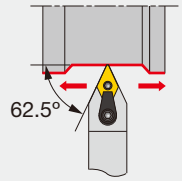
MDJNR: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

MTJNR: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

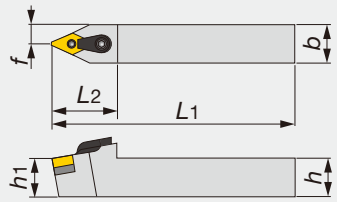
MVVNN: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

MDPNN

Multi-clamp toolholder with 62.5° approach angle, for negative 55° rhombic inserts



Cutting edge style **P**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
MDPNN2525M15	25	25	150	42	25	12.5	0.8	DN**15...

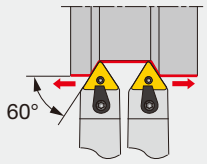
**r_ε: Standard corner radius

SPARE PARTS

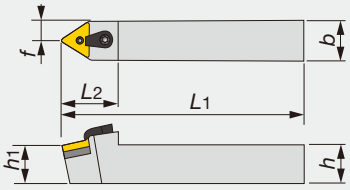
Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MDPNN2525M15	MCPM-22	MLP46L	MCS625-3	MSD-432	P-3	P-2.5F

MTENN

Multi-clamp toolholder with 60° approach angle, for negative triangle inserts



Cutting edge style **E**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
MTENN2525M16	25	25	150	35	25	12.5	0.8	TN**16...

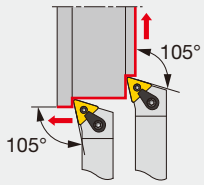
**r_ε: Standard corner radius

SPARE PARTS

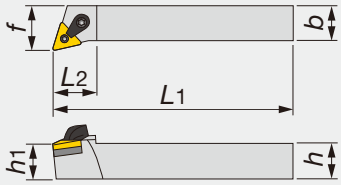
Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MTENN2525M16	MCPM-21	MLP34L	MCS625-3	MST-322	P-3	P-2F

MTQNR

Multi-clamp toolholder with 105° approach angle, for negative triangle inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
MTQNR2020K16	20	20	125	26	20	25	0.8	TN**16...
MTQNR2525M16	25	25	150	26	25	32	0.8	TN**16...

**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MTQNR...	MCPM-21	MLP34L	MCS625-3	MST-322	P-3	P-2F

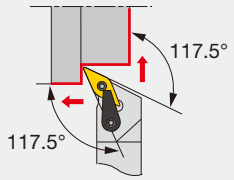
Reference pages

MDPNN: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

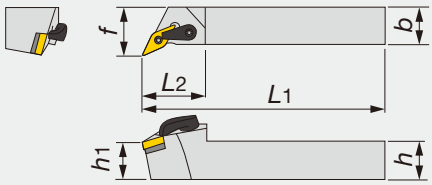
MTENN, MTQNR: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

MVQNR/L

Multi-clamp toolholder with 117.5° approach angle, for negative 35° or 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
MVQNR/L2020K16	20	20	125	40	20	25	0.8	V/YN**1604...
MVQNR/L2525M16	25	25	150	40	25	32	0.8	V/YN**1604...
MVQNR/L3232P16	32	32	170	40	32	40	0.8	V/YN**1604...

**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Pin	Right-left screw	Shim	Wrench 1	Wrench 2
MVQNR/L...	MCPM-22	MLP34L	MCS625-3	MSV-322	P-3	P-2F

Replacement Parts for M-type Toolholders

- When using the inserts shown in the shaded cells, the optional parts shown in the shaded cells are needed. You may purchase them separately.
- 1) Used for 1616H16. ● 2) Used for MSDNN. ● 3) Used for MDJNR/L ● 4) Used for MVVNN

Toolholder Designation		Designation	Shape	Shim	Lock pin	Shim screw	Clamp	Clamping screw	Chipbreaker piece	Lock pin Wrench	Wrench
		Applicable inserts									
MTJNR/L MTQNR/L MTENN	2020K16 2525M16	TN**1604**		MST-322	MLP34L	-	MCPM-20 1) MCPM-21	MCS620-3 1) MCS625-3	CBT-3M	P-2F	P-3
		TN**1604**			-	MSP-5					
		TN**1603**		MST-332	MLP34L	-	MCPM-20 1) MCPM-21	MCS620-3 1) MCS625-3	CBT-3M	P-2F	P-3
		TN**1603**			-	MSP-5					
MCLNR/L	2525M12	CN**1204**		MSC-432	MLP46	-	MCPM-21	MCS625-3	CBC-4MN	P-2.5F	P-3
		CN**1204**			-	MSP-6.3					
MDJNR/L MDPNR/L	2525M15	DN**1506**		MSD-432	MLP46L	-	MCPM-22	MCS625-3	CBD-4MR/L 3) CBD-4MN	P-2.5F	P-3
		DN**1504**		MSD-442		-					
		DN**1504**		MSD-442	-	MSP-6.3					
MVJNR/L MVVNN MVQNR/L	2020K16 2525M16 3225P16 3232P16	VN**1604**		MSV-322	MLP34L	-	MCPM-22 MCPM-30 4)	MCS625-3 MCS828-4 4)	-	P-2F	P-3 P-4 4)
MWLNR/L	2020K08 2525M08	WN**0804**		MSW-432	MLP46	-	MCPM-6	MCS520-2.5	-	P-2.5	P-2.5

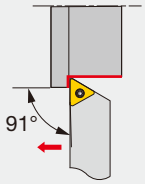
Note : The shims are made of Tungaloy grade D30, and the chipbreaker pieces are of TX30.

Reference pages

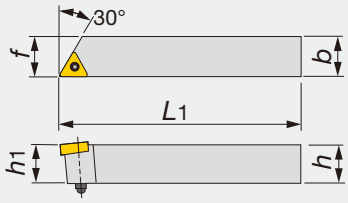
MVQNR/L: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

ETANR

Pin-lock toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **A**



Right hand (R) shown.

Designation	h	b	L1	h1	f	rε**	Insert
ETANR1616H33	16	16	100	15.5	16	0.8	TN**1604...
ETANR2020K33	20	20	125	19.5	20	0.8	TN**1604...

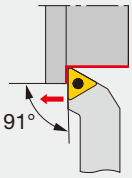
**rε: Standard corner radius

SPARE PARTS

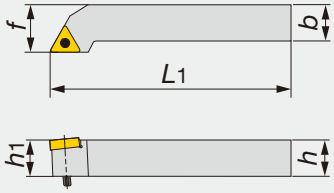
Designation	E-ring	Pin	Wrench
ETANR1616H33	ER3	P332US	KY40
ETANR2020K33	ER3	P333US	KY40

ETGNR/L

Pin-lock toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	h1	f	rε**	Insert
ETGNR/L1212	12	12	80	11.5	16	0.4	TN**1103...
ETGNR/L1616H33	16	16	100	15.5	20	0.8	TN**1604...
ETGNR/L2020K33	20	20	125	19.5	25	0.8	TN**1604...
ETGNR/L2020K33W	20	20	125	19.5	25	0.8	TN**1604...
ETGNR2525M33	25	25	150	24.5	32	0.8	TN**1604...
ETGNR/L2525M33W	25	25	150	24.5	32	0.8	TN**1604...

**rε: Standard corner radius

SPARE PARTS

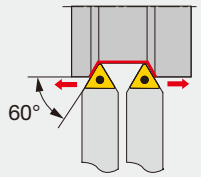
Designation	E-ring	Pin	Shim	Wrench
ETGNR/L1212	ER2	P221US	-	KY25
ETGNR/L1616H33	ER3	P332US	-	KY40
ETGNR/L2020K33	ER3	P333US	-	KY40
ETGNR/L2020K33W	ER3	P333WS	EST32	KY40
ETGNR2525M33	ER3	P334US	-	KY40
ETGNR/L2525M33W	ER3	P334WS	EST32	KY40

Reference pages

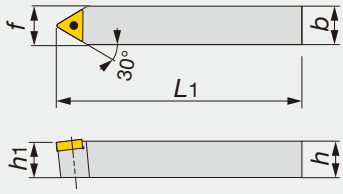
ETANR, ETGNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

ETENN

Pin-lock toolholder with 60° approach angle, for negative triangle inserts



Cutting edge style **E**



Designation	*h*	*b*	L_1	h_1	*f*	r_ε**	Insert
ETENN1212	12	12	80	11.5	6	0.4	TN**1103...
ETENN1616H33	16	16	100	15.5	8	0.8	TN**1604...
ETENN2020K33	20	20	125	19.5	10	0.8	TN**1604...
ETENN2020K33W	20	20	125	19.5	10	0.8	TN**1604...
ETENN2525M33W	25	25	150	24.5	12.5	0.8	TN**1604...

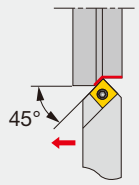
**r_ε: Standard corner radius

SPARE PARTS

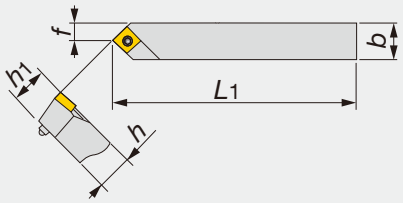
Designation	E-ring	Pin	Shim	Wrench
ETENN1212	ER2	P221US	-	KY25
ETENN1616H33	ER3	P332US	-	KY40
ETENN2020K33	ER3	P333US	-	KY40
ETENN2020K33W	ER3	P333WS	EST32	KY40
ETENN2525M33W	ER3	P334WS	EST32	KY40

ESDNR/L

Pin-lock toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Right hand (R) shown.

Designation	*h*	*b*	L_1	h_1	*f*	r_ε**	Insert
ESDNR1212	12	12	80	11.5	6	0.8	SN**0903...
ESDNR1616H32	16	16	100	15.5	8	0.8	SN**0903...

**r_ε: Standard corner radius

SPARE PARTS

Designation	E-ring	Pin	Wrench
ESDNR1212	ER3	P321US	KY40
ESDNR1616H32	ER3	P322US	KY40

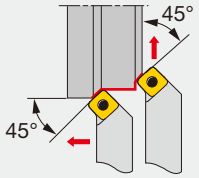
Reference pages

ETENN: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

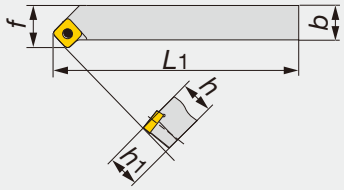
ESDNR/L: Inserts → **B071 -**

ESSNR/L

Pin-lock toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*h*1	*f*	*r*ε**	Insert
ESSNR1616H32	16	16	100	15.5	20	0.8	SN**0903...
ESSNR2020W	20	20	125	19.5	25	0.8	SN**1204...

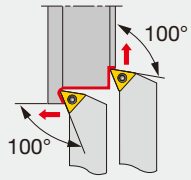
**r_ε: Standard corner radius

SPARE PARTS

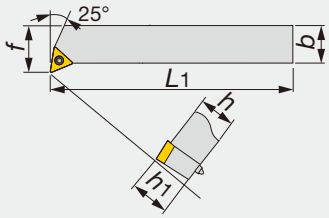
Designation	E-ring	Pin	Shim	Wrench
ESSNR1616H32	ER3	P322US	-	KY40
ESSNR2020W	ER3	P433W	ESS42	KY40

ETXNR/L

Pin-lock toolholder with 100° approach angle, for negative triangle inserts



Cutting edge style **X**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*h*1	*f*	*r*ε**	Insert
ETXNL1616H33	16	16	100	15.5	20	0.8	TN**1604...
ETXNR2020K33	20	20	125	19.5	25	0.8	TN**1604...

**r_ε: Standard corner radius

SPARE PARTS

Designation	E-ring	Pin	Wrench
ETXNL1616H33	ER3	P332US	KY40
ETXNR2020K33	ER3	P333US	KY40

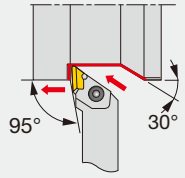
Reference pages

ESSNR/L: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

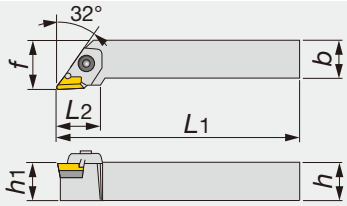
ETXNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

CKJNR/L

Clamp-on toolholder with 93° approach angle, for negative 55° parallelogram inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CKJNR/L2525	25	25	150	32	25	32	0.8	KNMX1604...

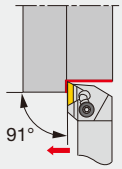
**rε: Standard corner radius

SPARE PARTS

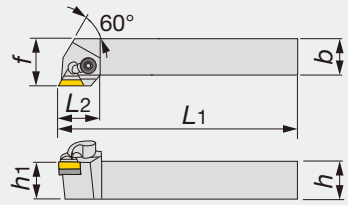
Designation	Clamp	Pin	Clamping screw	Shim screw	Shim	Spring	Wrench
CKJNR2525	CPK5R	BP-490	CTS-M6	SM3X0.5X10	CSK54R	SP913	P-4
CKJNL2525	CPK5L	BP-490	CTS-M6	SM3X0.5X10	CSK54L	SP913	P-4

CTGNR/L

Clamp-on toolholder with 91° approach angle, for negative triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CTGNR/L2020	20	20	125	28.5	20	25	0.8	TN**1604...
CTGNR/L2525	25	25	150	28.5	25	32	0.8	TN**1604...

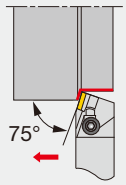
**rε: Standard corner radius

SPARE PARTS

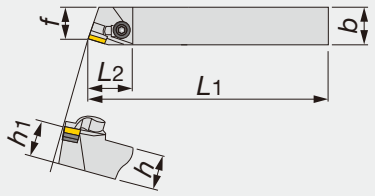
Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CTGNR/L...	NCT-2M	NF-84A	NDS-8A	SM3X0.5X8	NAT-32	P-4

CSBNR/L

Clamp-on toolholder with 75° approach angle, for negative square inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CSBNR2020	20	20	125	31	20	17	0.8	SN**1204...
CSBNR/L2525	25	25	150	31	25	22	0.8	SN**1204...

**rε: Standard corner radius

SPARE PARTS

Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CSBNR/L...	NCS-3M	NF-84A	NDS-8A	SM3X0.5X8	NAS-42	P-4

Reference pages

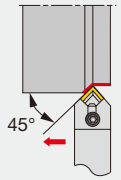
CKJNR/L: Inserts → **B103**

CTGNR/L: Inserts → **B090**, CBN → **B173**

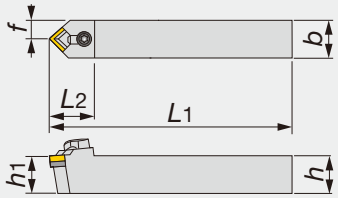
CSBNR/L: Inserts → **B079**, CBN → **B173**, PCD → **B176**

CSDNN

Clamp-on toolholder with 45° approach angle, for negative square inserts



Cutting edge style **D**



Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert
CSDNN2020	20	20	125	32	20	10	0.8	SN**1204...
CSDNN2525	25	25	150	32	25	12.5	0.8	SN**1204...

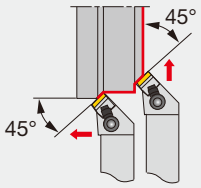
**r_ε: Standard corner radius

SPARE PARTS

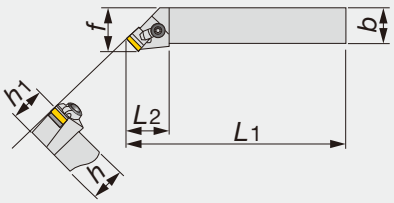
Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CSDNN...	NCS-3MN	NF-84A	NDS-8A	SM3X0.5X8	NAS-42	P-4

CSSNR/L

Clamp-on toolholder with 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert
CSSNR/L2020	20	20	125	31	20	25	0.8	SN**1204...
CSSNR/L2525	25	25	150	31	25	32	0.8	SN**1204...

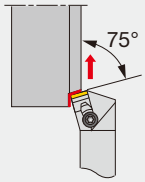
**r_ε: Standard corner radius

SPARE PARTS

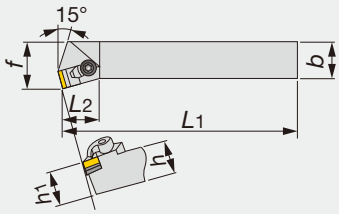
Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CSSNR/L...	NCS-3M	NF-84A	NDS-8A	SM3X0.5X8	NAS-42	P-4

CSKNR/L

Clamp-on toolholder with 75° approach angle, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert
CSKNR/L2525	25	25	150	25	25	32	0.8	SN**1204...

**r_ε: Standard corner radius

SPARE PARTS

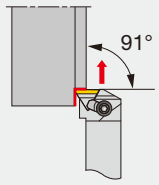
Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CSKNR/L2525	NCS-3MN	NF-84A	NDS-8A	SM3X0.5X8	NAS-42	P-4

Reference pages

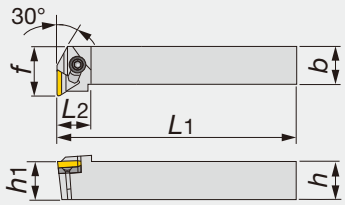
CSDNN, CSSNR/L, CSKNR/L: Inserts → **B079**, CBN → **B173**, PCD → **B176**

CTFNR/L

Clamp-on toolholder for facing with 91° approach angle, negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CTFNR/L2020	20	20	125	22	20	25	0.8	TN**1604...
CTFNR/L2525	25	25	150	22	25	32	0.8	TN**1604...

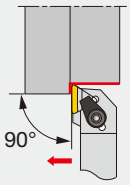
**rε: Standard corner radius

SPARE PARTS

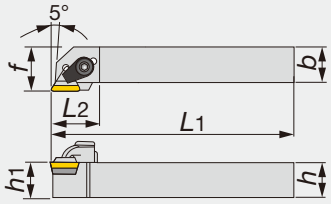
Designation	Chipbreaker piece	Clamp	Clamping screw	Shim screw	Shim	Wrench
CTFNR/L...	NCT-2M	NF-84A	NDS-8A	SM3X0.5X8	NAT-32	P-4

CTGPR/L

Clamp-on toolholder with 90° approach angle, for positive triangle inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CTGPR/L1616H3	16	16	100	23	16	20	0.8	TP**1603...
CTGPR/L2020K3	20	20	125	27	20	25	0.8	TP**1603...
CTGPR/L2525M3	25	25	150	27	25	32	0.8	TP**1603...

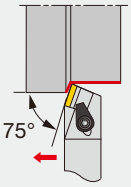
**rε: Standard corner radius

SPARE PARTS

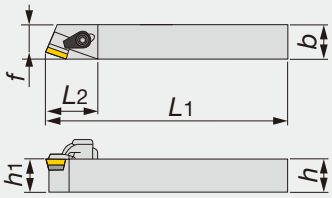
Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CTGPR/L1616H3	CBT-3M	CSG-6L	SM3X0.5X8	PAT-32	P-3
CTGPR/L2*2**3	CBT-3M	CSG-8	SM3X0.5X8	PAT-32	P-4

CSBPR/L

Clamp-on toolholder with 75° approach angle, for positive square inserts



Cutting edge style **B**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CSBPR/L1616H3	16	16	100	25	16	13	0.4	SP**0903...
CSBPR/L2020K4	20	20	125	32	20	17	0.8	SP**1203...
CSBPR/L2525M4	25	25	150	32	25	22	0.8	SP**1203...

**rε: Standard corner radius

SPARE PARTS

Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CSBPR/L1616H3	CBS-3M	CSG-6L	SM2.5X0.45X8	PAS-32	P-3
CSBPR/L2*2**4	CBS-4M	CSG-8	SM3X0.5X8	PAS-42	P-4

Reference pages

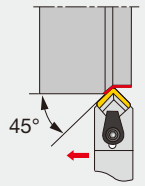
CTFNR/L: Inserts → **B090**, CBN → **B173**

CTGPR/L: Inserts → **B136 -**, CBN → **B170 -**, PCD → **B178**

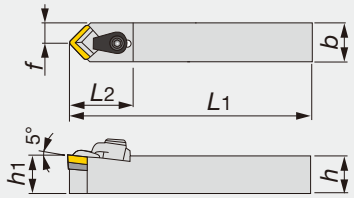
CSBPR/L: Inserts → **B130**, CBN → **B168 -**, PCD → **B177**

CSDPN

Clamp-on toolholder with 45° approach angle, for positive square inserts



Cutting edge style **D**



Designation	h	b	L1	L2	h1	f	rε**	Insert
CSDPN1616H3	16	16	100	26	16	8	0.8	SP**0903...
CSDPN2020K4	20	20	125	34	20	10	0.8	SP**1203...
CSDPN2525M4	25	25	150	34	25	12.5	0.8	SP**1203...

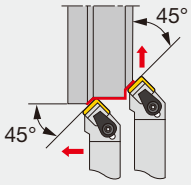
**rε: Standard corner radius

SPARE PARTS

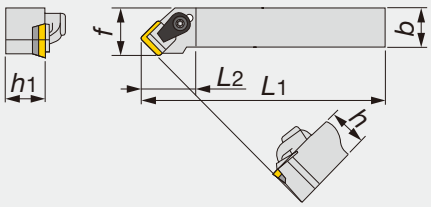
Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CSDPN1616H3	CBS-3MN	CSG-6L	SM2.5X0.45X8	PAS-32	P-3
CSDPN2*2**4	CBS-4MN	CSG-8	SM3X0.5X8	PAS-42	P-4

CSSPR

Clamp-on toolholder with 45° approach angle, for positive square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CSSPR1616H3	16	16	105.5	23	16	20	0.8	SP**0903...
CSSPR2020K4	20	20	133	28	20	25	0.8	SP**1203...
CSSPR2525M4	25	25	158	28.	25	32	0.8	SP**1203...

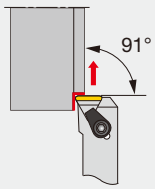
**rε: Standard corner radius

SPARE PARTS

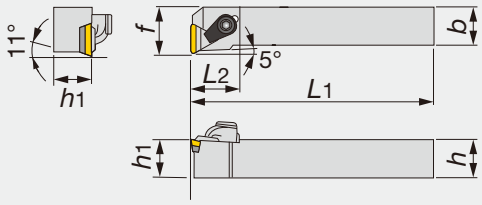
Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CSSPR1616H3	CBS-3M	CSG-6L	SM2.5X0.45X8	PAS-32	P-3
CSSPR2*2**4	CBS-4M	CSG-8	SM3X0.5X8	PAS-42	P-4

CTFPR/L

Clamp-on toolholder for facing with 91° approach angle, positive triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
CTFPR/L1616H3	16	16	100	23	16	20	0.8	TP**1603...
CTFPR/L2020K3	20	20	125	26	20	25	0.8	TP**1603...
CTFPR/L2525M3	25	25	150	26	25	32	0.8	TP**1603...

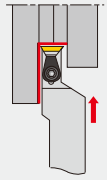
**rε: Standard corner radius

SPARE PARTS

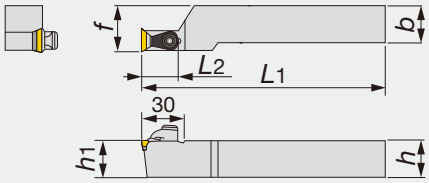
Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CTFPR/L1616H3	CBT-3M	CSG-6L	SM3X0.5X8	PAT-32	P-3
CTFPR/L2*2**3	CBT-3M	CSG-8	SM3X0.5X8	PAT-32	P-4

CTCPR/L

Clamp-on toolholder for facing with 90° approach angle, positive triangle inserts



Cutting edge style **C**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
CTCPR/L2525M3	25	25	150	32	25	32	0.8	TP**1603...

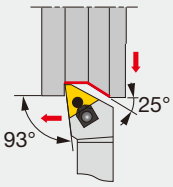
**r_ε: Standard corner radius

SPARE PARTS

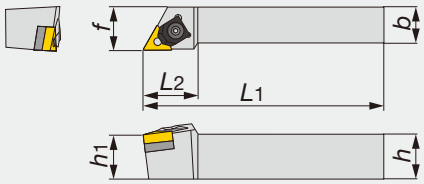
Designation	Chipbreaker piece	Clamp set	Shim screw	Shim	Wrench
CTCPR/L2525M3	CBT-3M	CSW-2	SM3X0.5X8	PAT-32	P-4

WTJNR/L

Wedge-on toolholder with 93° approach angle, for negative triangle inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
WTJNR2020	20	20	125	31	20	25	0.8	TN**1604...
WTJNR/L2525M3	25	25	150	31	25	32	0.8	TN**1604...

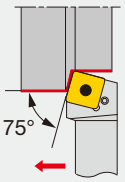
**r_ε: Standard corner radius

SPARE PARTS

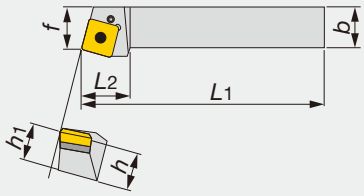
Designation	Clamp	E-ring	Nut	Pin	Clamping screw	Shim	Wrench
WTJNR2020	WCW3	5103-25	WCN3S	WCP3S	WCS3	WST33	P-3
WTJNR/L2525M3	WCW3	5103-25	WCN3	WCP3S	WCS3	WST33	P-3

HSRNR/L

Retract-pin clamp toolholder with 75° approach angle, for negative square inserts



Cutting edge style **R**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
HSRNR/L4040R	40	40	200	50	40	43	1.6	SNMM3109...
HSRNR/L5050S	50	50	250	60	50	53	1.6	SNMM3109...

**r_ε: Standard corner radius

SPARE PARTS

Designation	Pin	Clamping screw	Shim	Wrench
HSRNR/L...	SW99	LS-8	NAS-04	P-4

Reference pages

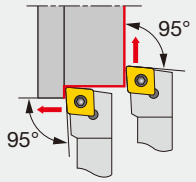
CSDPN, CSSPR: Inserts → **B130**, CBN → **B168 -**, PCD → **B177**

CTFPR/L, CTCPR/L: Inserts → **B143 -**, CBN → **B170 -**, PCD → **B178**

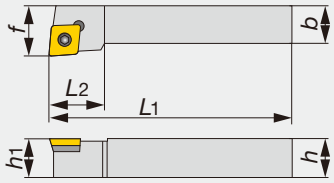
WTJNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

SCLCR/L

Screw-on clamp toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...
SCLCR/L2020K12	20	20	125	20	20	25	0.8	CC**1204...

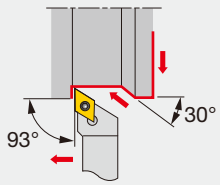
**rε: Standard corner radius

SPARE PARTS

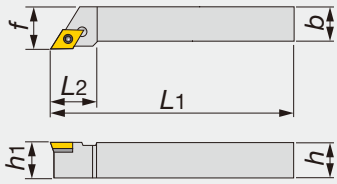
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SCLCR/L1616H09	CSTB-3.5L	DTS5-3.5	SSC32	P-3.5	T-15F
SCLCR/L2020K12	CSTB-4F	DTS6-4	SSC4T3	P-4	T-15F

SDJCR/L

Screw-on clamp toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SDJCR1616H11	16	16	100	20	16	20	0.8	DC**11T3...
SDJCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDJCR/L2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

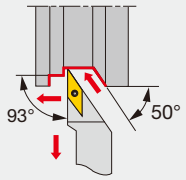
**rε: Standard corner radius

SPARE PARTS

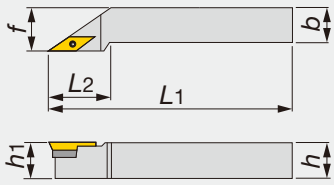
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SDJCR/L...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

SVJCR/L

Screw-on clamp toolholder with 93° approach angle, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert
SVJCR/L1616H16	16	16	100	32	16	20	0.8	VC**1604...
SVJCR/L2020K16	20	20	125	32	20	25	0.8	VC**1604...
SVJCR/L2525M16	25	25	150	40	25	32	0.8	VC**1604...

**rε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVJCR/L...	CSTB-3.5L	DTS5-3.5	SSV32	P-3.5	T-15F

Reference pages

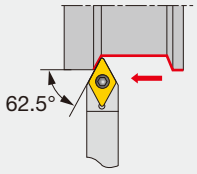
SCLCR/L: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

SDJCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

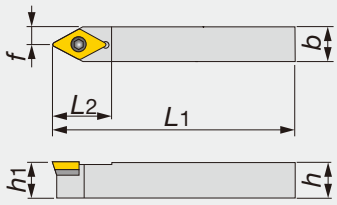
SVJCR/L: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

SDNCN

Screw-on clamp toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Cutting edge style **N**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
SDNCN1616H11	16	16	100	21	16	8	0.8	DC**11T3...
SDNCN2020K11	20	20	125	21	20	10	0.8	DC**11T3...
SDNCN2525M11	25	25	150	21	25	12.5	0.8	DC**11T3...

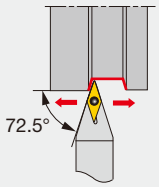
**r_ε: Standard corner radius

SPARE PARTS

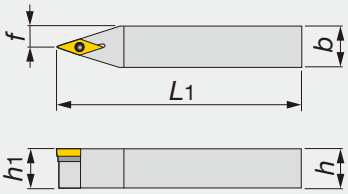
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SDNCN...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

SVVCN

Screw-on clamp toolholder with 72.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **V**



Designation	*h*	*b*	L_1	h_1	*f*	r_ε**	Insert
SVVCN2020K16	20	20	125	20	10	0.8	VC**1604...
SVVCN2525M16	25	25	150	25	12.5	0.8	VC**1604...

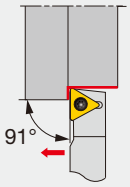
**r_ε: Standard corner radius

SPARE PARTS

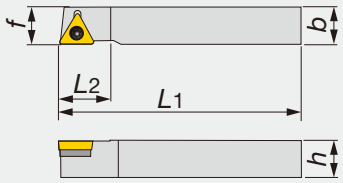
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVVCN...	CSTB-3.5L	DTS5-3.5	SSV32	P-3.5	T-15F

STACR/L

Screw-on toolholder with 91° approach angle, for positive triangle inserts



Cutting edge style **A**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert
STACR/L1616H16	16	16.	100	22.5	16	16	0.8	TC**16T3...

**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
STACR/L...	CSTB-3.5L	DTS5-3.5	SST32	P-3.5	T-15F

Reference pages

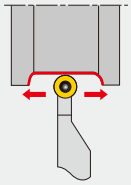
SDNCN: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

SVVCN: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

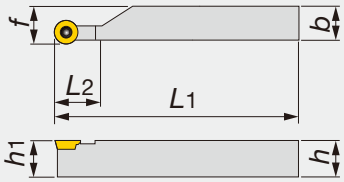
STACR/L: Inserts → **B131 -**

SRACR/L

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **A**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	Insert
SRACR1010H05	10	10	100	10	10	10.3	RCMT0502...
SRACR/L1212H05	12	12	100	10	12	12.3	RCMT0502...
SRACR/L1212H06	12	12	100	12	12	12.4	RC*T0602...
SRACR1616H05	16	16	100	10	16	16.3	RCMT0502...
SRACR/L1616H06	16	16	100	12	16	16.4	RC*T0602...
SRACR/L1616H08	16	16	100	16	16	16.5	RC*T0803...
SRACR/L2020K05	20	20	125	10	20	20.3	RCMT0502...
SRACR/L2020K06	20	20	125	12	20	20.4	RC*T0602...
SRACR/L2020K08	20	20	125	16	20	20.5	RC*T0803...
SRACR/L2525M05	25	25	150	10	25	25.3	RCMT0502...
SRACR/L2525M06	25	25	150	12	25	25.4	RC*T0602...
SRACR/L2525M08	25	25	150	16	25	25.5	RC*T0803...

SPARE PARTS

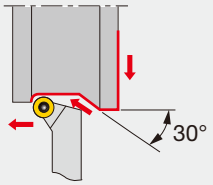
Designation	Clamping screw	Wrench
SRACR/L1*1*H05	CSTB-2.2R	T-7F
SRACR/L1212H06	CSTB-2.5	T-8F
SRACR1616H05	CSTB-2.2R	T-7F
SRACR/L1616H06	CSTB-2.5	T-8F
SRACR/L1616H08	CSTB-3	T-9F
SRACR/L2020K05	CSTB-2.2R	T-7F
SRACR/L2020K06	CSTB-2.5	T-8F
SRACR/L2020K08	CSTB-3	T-9F
SRACR/L2525M05	CSTB-2.2R	T-7F
SRACR/L2525M06	CSTB-2.5	T-8F
SRACR/L2525M08	CSTB-3	T-9F

Reference pages

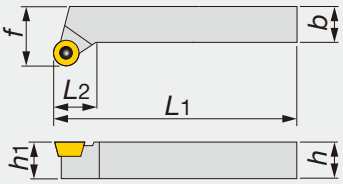
SRACR/L: Inserts → **B124 -**

SRGCR/L

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	Insert
SRGCR1212H05	12	12	100	9.5	12	16	RCMT0502...
SRGCR/L1212H06	12	12	100	10	12	16	RC*T0602...
SRGCR/L1616H05	16	16	100	9.5	16	20	RCMT0502...
SRGCR/L1616H06	16	16	100	10	16	20	RC*T0602...
SRGCR/L1616H08	16	16	100	11	16	20	RC*T0803...
SRGCR/L2020K05	20	20	125	11.2	20	25	RCMT0502...
SRGCR/L2020K06	20	20	125	12	20	25	RC*T0602...
SRGCR/L2020K08	20	20	125	12.7	20	25	RC*T0803...
SRGCR/L2020K10	20	20	125	14	25	25	RC*T1003...
SRGCR/L2525M05	25	25	150	14.7	25	32	RCMT0502...
SRGCR/L2525M06	25	25	150	15	25	32	RC*T0602...
SRGCR/L2525M08	25	25	150	16.2	25	32	RC*T0803...
SRGCR/L2525M10	25	25	150	17.5	25	32	RC*T1003...

SPARE PARTS

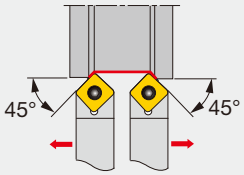
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRGCR1212H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1212H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1616H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2020K06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2020K08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRGCR/L2525M05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2525M06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2525M08	CSTB-3	-	-	-	T-9F
SRGCR/L2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

Reference pages

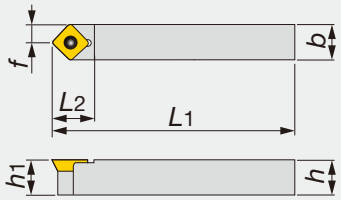
SRGCR/L: Inserts → **B124 -**

SSDC/PN

Screw-on clamp toolholder with 45° approach angle, for positive square inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert
SSDCN1010K07	10	10	125	12	10	5	0.4	SC**0702...
SSDPN1010H	10	10	100	12	10	5	0.4	SP*P042...
SSDCN1212K09	12	12	125	15	12	6	0.8	SC**09T3...
SSDPN1212H	12	12	100	12	12	6	0.4	SP*P042...
SSDCN1616H09	16	16	100	15	16	8	0.8	SC**09T3...
SSDPN1616H	16	16	100	14	16	8	0.8	SP*M322...

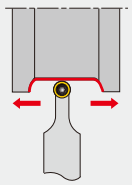
**r_ε: Standard corner radius

SPARE PARTS

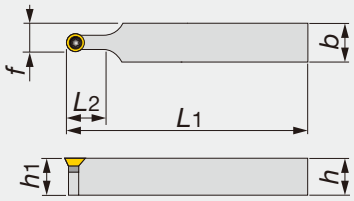
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SSDCN1010K07	CSTB-3	-	-	-	T-9F
SSDPN1010H	CSTA-NO3	-	-	-	T-9F
SSDCN1212K09	CSTB-4	-	-	-	T-15F
SSDPN1212H	CSTA-NO3	-	-	-	T-9F
SSDCN1616H09	CSTB-3.5L	DTS5-3.5	SSS32	P-3.5	T-15F
SSDPN1616H	CSTA-NO5	-	-	-	T-9F

SRDCN

Screw-on toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
SRDCN2020K06	20	20	125	12	20	13	RC*T0602...
SRDCN2020K08	20	20	125	16	20	14	RC*T0803...
SRDCN2020K10	20	20	125	20.3	25	15	RC*T1003...
SRDCN2525M06	25	25	150	12	25	15.5	RC*T0602...
SRDCN2525M08	25	25	150	16	25	16.5	RC*T0803...
SRDCN2525M10	25	25	150	20.3	25	17.5	RC*T1003...

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRDCN2020K06	CSTB-2.5	-	-	-	T-8F
SRDCN2020K08	CSTB-3	-	-	-	T-9F
SRDCN2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRDCN2525M06	CSTB-2.5	-	-	-	T-8F
SRDCN2525M08	CSTB-3	-	-	-	T-9F
SRDCN2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

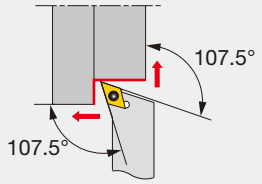
Reference pages

SSDC/PN: Inserts → **B127, E100**

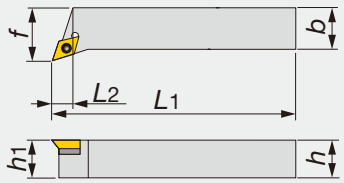
SRDCN: Inserts → **B124 -**

SDQCR/L

Screw-on clamp toolholder with 107.5° approach angle, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert
SDQCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDQCR2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

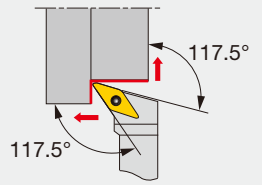
***rε*: Standard corner radius

SPARE PARTS

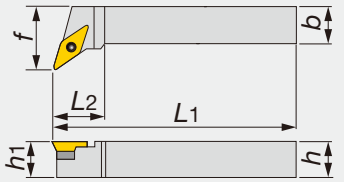
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SDQCR/L...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

SVQCR/L

Screw-on clamp toolholder with 117.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert
SVQCR/L2020K16	20	20	125	35	20	27	0.8	VC**1604...
SVQCR/L2525M16	25	25	150	35	25	32	0.8	VC**1604...

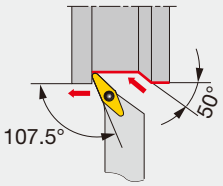
***rε*: Standard corner radius

SPARE PARTS

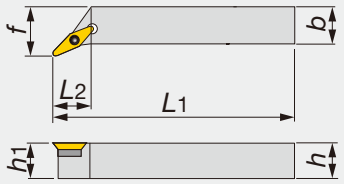
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVQCR/L...	CSTB-3.5L	DTS5-3.5	SSV32	P-3.5	T-15F

SVHCR/L

Screw-on clamp toolholder with 107.5° approach angle, for positive 35° rhombic inserts



Cutting edge style **H**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert
SVHCR/L2525M22	25	25	150	33.8	25	32	0.8	VCG*2205...

***rε*: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVHCR/L2525M22	CSTB-4.5L110P	DTS6-4.5	SSV42	P-4.5	T-15F

Reference pages

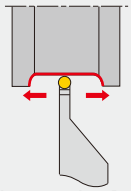
SDQCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

SVQCR/L: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

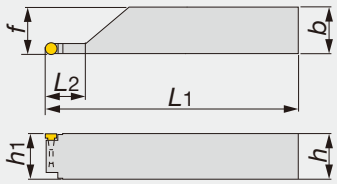
SVHCR/L: Inserts → **B148**

TRACN

Taper-lock toolholder with 91° approach angle, for RT type tapered round inserts



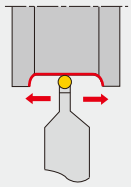
Cutting edge style **A**



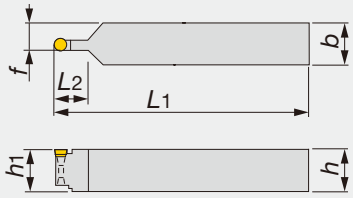
Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
TRACN2020K05	20	20	125	20	20	20.3	RT05
TRACN2020K06	20	20	125	22	20	20.4	RT06
TRACN2525M05	25	25	150	20	25	25.3	RT05
TRACN2525M06	25	25	150	22	25	25.4	RT06
TRACN2525M08	25	25	150	25	25	25.5	RT08

TRDCN

Taper-lock toolholder with 45° approach angle, for RT type tapered round inserts



Cutting edge style **D**



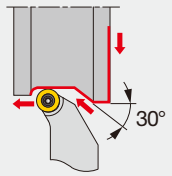
Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
TRDCN2020K05	20	20	125	20	20	12.5	RT05
TRDCN2525M05	25	25	150	20	25	15	RT05
TRDCN2525M06	25	25	150	22	25	15.5	RT06

Reference pages

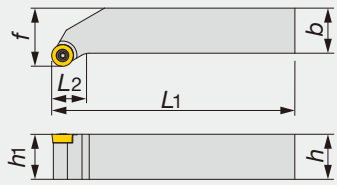
TRACN, TRDCN: Inserts → **B125**

FIXRTURN
SRGCR/L

Screw-on toolholder with 91° approach angle, for positive round inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert	Torque*
SRGCR/L2525M12-6F	25	25	150	18.6	25	32	RCMT1204M0-6RS/-6RM	3

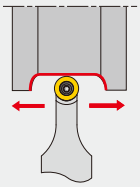
*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

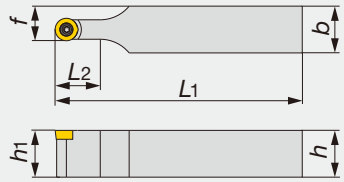
Designation	Clamping screw	Lubricant	Wrench
SRGCR/L2525M12-6F	CSTB-4	M-1000	T-15F

FIXRTURN
SRDCN

Screw-on toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert	Torque*
SRDCN2525M12-6F	25	25	150	24.1	25	18.5	RCMT1204M0-6RS/-6RM	3

*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Lubricant	Wrench
SRDCN2525M12-6F	CSTB-4	M-1000	T-15F

INSERT

RCMT

6RS

6RM

Designation	Coated		Cermet	*ød*	s	*ød*1
	T9115	T9125	NS9530			
RCMT1204M0-6RS	●	●	●	12	4.76	5.16
RCMT1204M0-6RM	●	●	●	12	4.76	5.16

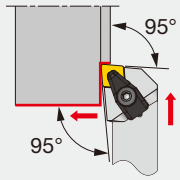
● : Line up

STANDARD CUTTING CONDITIONS

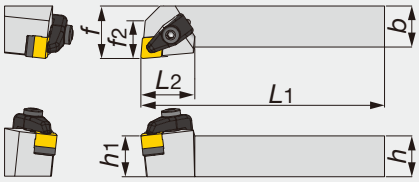
ISO	Workpiece material	Chip-breaker	Grade	Cutting speed *Vc* (m/min)	Depth of cut *ap* (mm)	Feed *f* (mm/rev)
P	Steels C45, 18CrMo4, etc.	6RS	T9115	150 - 300	0.5 - 2.0	0.5 - 1.0
		6RS	T9125	120 - 250	0.5 - 2.0	0.5 - 1.0
		6RS	NS9530	150 - 250	0.5 - 2.0	0.5 - 1.0
		6RM	T9115	150 - 300	1.0 - 3.0	0.5 - 1.0
		6RM	T9125	120 - 250	1.0 - 3.0	0.5 - 1.0
		6RM	NS9530	150 - 250	1.0 - 3.0	0.5 - 1.0

DIMPLEFX
CCLNR/L-RD

Double clamp toolholder for ceramic insert with dimple, 95° approach angle, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	f_2	r_ε**	Insert	Torque*
CCLNR/L2525M1207-RD	25	25	150	33	25	32	23	1.2	CN*D1207...	4
CCLNR3225P1207-RD	32	25	170	33	32	32	23	1.2	CN*D1207...	4

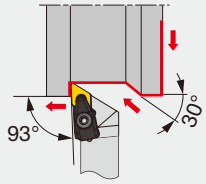
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

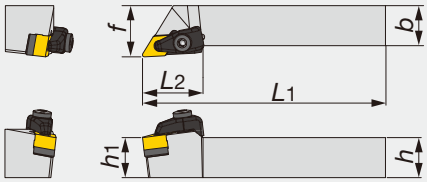
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CCLNR/L**-RD	CCP4-A	CCS4-A	CC44-A	BH5-10-A	BP-5-A	P-3	P-4

DIMPLEFX
CDJNR/L-RD

Double clamp toolholder for ceramic insert with dimple, 93° approach angle, for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
CDJNR/L2525M1507-RD	25	25	150	38	25	32	1.2	DN*D1507...	4
CDJNR3225P1507-RD	32	25	170	38	32	32	1.2	DN*D1507...	4

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CDJNR/L**-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

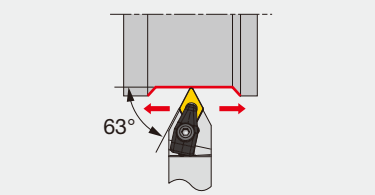
Reference pages

CCLNR/L-RD: Inserts → **B060**, Standard cutting conditions → **B256**

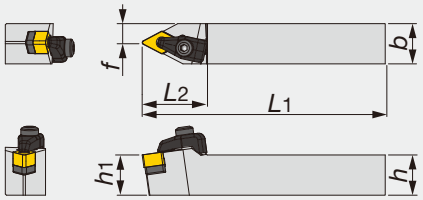
CDJNR/L-RD: Inserts → **B069**, Standard cutting conditions → **B256**

DIMPLEFX
CDNNN-RD

Double clamp toolholder for ceramic insert with dimple, 63° approach angle, for negative 55° rhombic inserts



Cutting edge style **N**



Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
CDNNN2525M1507-RD	25	25	150	40	25	12.5	1.2	DN*D1507...	4

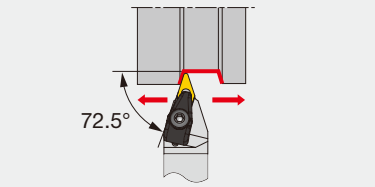
*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

SPARE PARTS

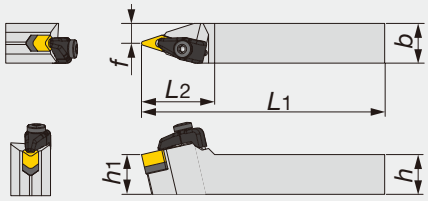
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CDNNN2525M1507-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

DIMPLEFX
CVVNN-RD

Double clamp toolholder for ceramic insert with dimple, 72.5° approach angle, for negative 35° rhombic inserts



Cutting edge style **V**



Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
CVVNN2525M1607-RD	25	25	150	46	25	12.5	1.2	VN*D160712	4

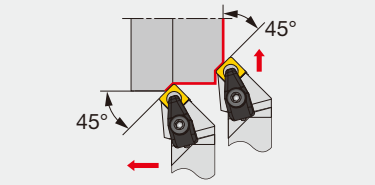
*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

SPARE PARTS

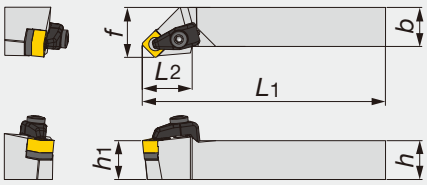
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CVVNN2525M1607-RD	CCP4-A	CCS4-A	CV34-A	BH-4-10-A	BP-5-A	P-3	P-4

DIMPLEFX
CSSNR/L-RD

Double clamp toolholder for ceramic insert with dimple, 45° approach angle, for negative square inserts



Cutting edge style **S**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
CSSNR/L2525M1207-RD	25	25	150	32	25	32	1.2	SN*D1207...	4

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius

SPARE PARTS

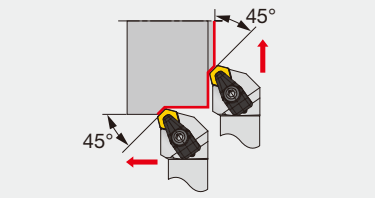
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CSSNR/L2525M1207-RD	CCP4-A	CCS4-A	CS44-A	BH5-10-A	BP-5-A	P-3	P-4

Reference pages

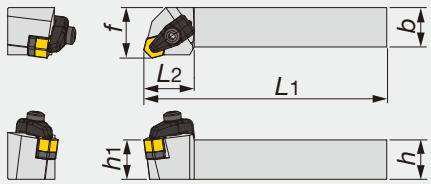
CDNNN-RD: Inserts → **B069**, CVVNN-RD: Inserts → **B094,** CSSNR/L-RD: Inserts → **B079**
Standard cutting conditions → **B256**

DIMPLEFX
CHSNR-RD

Double clamp toolholder for ceramic insert with dimple, 45° approach angle, for negative hexagonal inserts



Cutting edge style **S**



Right hand (R) shown.

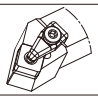
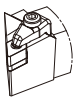
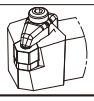
Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
CHSNR2525M0507-RD	25	25	150	32	25	32	1.2	HN*D0507...	4

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CHSNR2525M0507-RD	CCP4-A	CCS4-A	CH44-A	BH-40050-A	BP-5-A	P-3	P-4

Parts for C-type

Toolholders Designation	Applicable Insert Designation		Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench
CCLNR2525M1207-RD	CNGD1207□□		CCP4-A	CCS4-A	CC44-A	BH5-10-A	BP-5-A	P-4 P-3
CCLNL2525M1207-RD								
CCLNR3225P1207-RD								
CSSNR2525M1207-RD	SNGD1207□□				CS44-A			
CSSNL2525M1207-RD								
CDJNR2525M1507-RD	DNGD1507□□				CD44-A			
CDJNL2525M1507-RD								
CDJNR3225P1507-RD								
CDNNN2525M1507-RD	DNGD1507□□							
CVVNN2525M1607-RD	VNGD160712				CV34-A	BH-4-10-A		
CHSNR2525M0507-RD	HNGD0507□□				CH44-A	BH-40050-A		

STANDARD CUTTING CONDITIONS

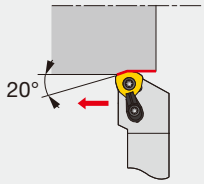
ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Depth of cut *ap* (mm)	Feed *f* (mm/rev)
K	Grey cast irons	FX105	700 (300 - 1000)	1 (0.05 - 3)	0.3 (0.05 - 0.6)
	Ductile cast irons	FX105	200 (100 - 300)	1 (0.05 - 3)	0.2 (0.05 - 0.4)

Reference pages

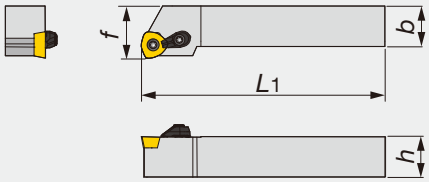
CHSNR-RD: Inserts → **B103**

TURNFEED
XWXPR/L

Double clamping toolholder with 20° approach angle for roughing operation with positive trigon inserts



Cutting edge style **X**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*f*	Insert
XWXPR/L2525M09	25	25	150	32	WPMT090725ZPR/L-ML
XWXPR/L3232P09	32	32	170	40	WPMT090725ZPR/L-ML
XWXPR/L4040S09	40	40	250	50	WPMT090725ZPR/L-ML

SPARE PARTS

Designation	Clamp set	Clamping screw	Wrench
XWXPR/L...	CSY-20	CSPB-5	IP-20T

Note: Care should be taken not to confuse the hand of inserts to be used.

INSERT

WPMT09-ML

● : Continuous cutting
ⓒ : Light interrupted cutting
✠ : Heavy interrupted cutting

Trigon, 80° with hole Positive 11°

		Coated		
P	Steel	●ⓒ	ⓒ✠	●ⓒ
M	Stainless			●ⓒ
K	Cast iron	●ⓒ		●ⓒ
N	Non-ferrous			
S	Superalloys			●ⓒ
H	Hard materials			

Application	Chipbreaker	Designation	Corner radius	T9115	T9125	AH120
Heavy	ML	WPMT090725ZPR-ML	2.5	●	●	●
		WPMT090725ZPL-ML	2.5	●	●	●

● : Line up

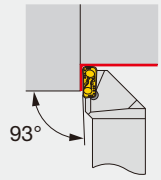
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Chipbreaker	Cutting speed: *Vc* (m/min)	Depth of cut: *ap* (mm)	Feed: *f* (mm/rev)
P	Mild and low carbon steels E275A, C15E4, etc. < 180 HB	T9125	ML	150 (100 - 250)	0.5 - 2.5	1.5 (0.5 - 2.5)
	Carbon and alloy steels C55, 42CrMo4, etc. < 300HB	T9115	ML	150 (100 - 250)	0.5 - 2.5	1.5 (0.5 - 2.5)
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-3, etc. < 250 HB	T9125	ML	150 (100 - 250)	0.5 - 2.5	1.5 (0.5 - 2.5)
K	Grey and ductile cast irons 250, 400-15S, etc.	AH120	ML	150 (100 - 250)	0.5 - 2.5	1.5 (0.5 - 2.5)

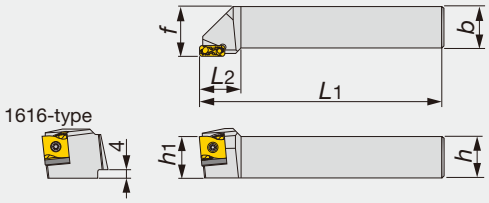
Note: When the side cutting edge is used for facing, the maximum feed is limited to within 1.0 mm/rev.

TURNTEC
TLANR/L

Screw-on clamp toolholder for roughing operation with 93° approach angle, for negative tangential inserts



Cutting edge style **A**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	Insert
TLANR/L1616H12	16	16	100	20	16	20	LNMX1204**R/L...
TLANR/L1616M12S	16	16	150	20	16	20	LNMX1204**R/L...
TLANR/L2020K12	20	20	125	20	20	25	LNMX1204**R/L...
TLANR/L2020K16	20	20	125	25	20	25	LNMX1606**R/L...
TLANR/L2525M12	25	25	150	20	25	30	LNMX1204**R/L...
TLANR/L2525M16	25	25	150	25	25	30	LNMX1606**R/L...
TLANR/L3232P16	32	32	170	35	32	37	LNMX1606**R/L...
TLANR/L3232P24	32	32	170	35	32	38	LNMX2410**R/L...
TLANR/L4040R16	40	40	200	35	40	47	LNMX1606**R/L...
TLANR/L4040R24	40	40	200	40	40	47	LNMX2410**R/L...
TLANR/L5050S24	50	50	250	40	50	57	LNMX2410**R/L...

SPARE PARTS

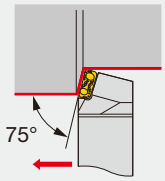
Designation	Clamping screw	Shim screw	Shim	Spring	Wrench 1	Wrench 2
TLANR1616H12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12R	-	KEYV-T10	T-6F-S
TLANL1616H12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L	-	KEYV-T10	T-6F-S
TLANR1616M12S	CSTB-3.5L115-S	CSTF-2L055-S	TSL12R	-	KEYV-T10	T-6F-S
TLANL1616M12S	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L	-	KEYV-T10	T-6F-S
TLANR2020K12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12R	-	KEYV-T10	T-6F-S
TLANL2020K12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L	-	KEYV-T10	T-6F-S
TLANR2020K16	CSTB-4L115-S	-	TSL16R	PSP-16	KEYV-T15	-
TLANL2020K16	CSTB-4L115-S	-	TSL16L	PSP-16	KEYV-T15	-
TLANR2525M12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12R	-	KEYV-T10	T-6F-S
TLANL2525M12	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L	-	KEYV-T10	T-6F-S
TLANR2525M16	CSTB-4L115-S	-	TSL16R	PSP-16	KEYV-T15	-
TLANL2525M16	CSTB-4L115-S	-	TSL16L	PSP-16	KEYV-T15	-
TLANR3232P16	CSTB-4L115-S	-	TSL16R	PSP-16	KEYV-T15	-
TLANL3232P16	CSTB-4L115-S	-	TSL16L	PSP-16	KEYV-T15	-
TLANR3232P24	CSTB-5L163-S	-	TSL24R	SP 16-L14	KEYV-T20	-
TLANL3232P24	CSTB-5L163-S	-	TSL24L	SP 16-L14	KEYV-T20	-
TLANR4040R16	CSTB-4L115-S	-	TSL16R	PSP-16	KEYV-T15	-
TLANL4040R16	CSTB-4L115-S	-	TSL16L	PSP-16	KEYV-T15	-
TLANR4040R24	CSTB-5L163-S	-	TSL24R	SP 16-L14	KEYV-T20	-
TLANL4040R24	CSTB-5L163-S	-	TSL24L	SP 16-L14	KEYV-T20	-
TLANR5050S24	CSTB-5L163-S	-	TSL24R	SP 16-L14	KEYV-T20	-
TLANL5050S24	CSTB-5L163-S	-	TSL24L	SP 16-L14	KEYV-T20	-

Reference pages

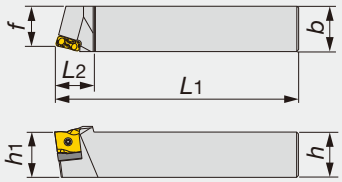
TLANR/L: Inserts → **B260**, Standard cutting conditions → **B261**

TURNTEC
TLBNR/L

Screw-on clamp toolholder for roughing operation with 75° approach angle, for negative tangential inserts



Cutting edge style **B**



Right hand (R) shown.

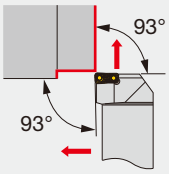
Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
TLBNR/L4040R24	40	40	200	35	40	35	LNMX2410**R/L...

SPARE PARTS

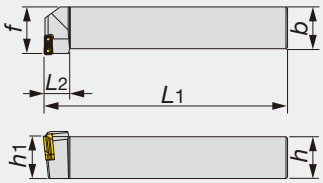
Designation	Clamping screw	Shim	Spring pin	Wrench
TLBNR4040R24	CSTB-5L163-S	TSL24R	PSP-16	KEYV-T20
TLBNL4040R24	CSTB-5L163-S	TSL24L	PSP-16	KEYV-T20

TURNTEC
TLFNR/L

Screw-on clamp toolholder for roughing operation with 93° approach angle, for negative tangential inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	Insert
TLFNR/L2525M16	25	25	150	20	25	30	LNMX1606**L/R...
TLFNR/L3232P16	32	32	170	20	32	37	LNMX1606**L/R...

Note: The right hand insert (R) is used for the left hand toolholders (TLFNL** type), and the left hand insert (L) is used for the right hand toolholders (TLFNR** type).

SPARE PARTS

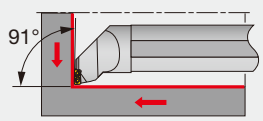
Designation	Clamping screw	Shim	Spring pin	Wrench
TLFNR2525M16	CSTB-4L115-S	TSL16L	PSP-16	KEYV-T15
TLFNL2525M16	CSTB-4L115-S	TSL16R	PSP-16	KEYV-T15
TLFNR3232P16	CSTB-4L115-S	TSL16L	PSP-16	KEYV-T15
TLFNL3232P16	CSTB-4L115-S	TSL16R	PSP-16	KEYV-T15

Reference pages

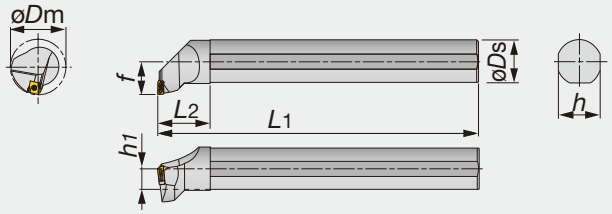
TLBNR/L, TLFNR/L: Inserts → **B260**, Standard cutting conditions → **B261**

TURNTEC
S-TLANR/L

Screw-on clamp toolholder for roughing operation with 91° approach angle, for negative tangential inserts



Cutting edge style **A**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	h1	Insert
S25T-TLANR/L12-D530	Steel	53	25	17	300	40	23	11.5	LNMX1204**L/R...
S32U-TLANR/L12-D530	Steel	53	32	22	350	45	30	15	LNMX1204**L/R...
S40V-TLANR/L12-D530	Steel	53	40	27	400	53	37	18.5	LNMX1204**L/R...
S50U-TLANR/L16-D850	Steel	85	50	37	350	63	47	23.5	LNMX1606**L/R...

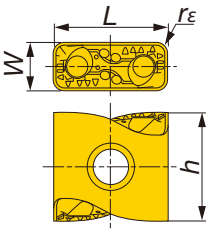
Note: The right hand insert (R) is used for the left hand toolholders (TLANL** type), and the left hand insert (L) is used for the right hand toolholders (TLANR** type).

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Spring pin	Wrench 1	Wrench 2
S**-TLANR/L12-D530	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L/RI	-	KEYV-T10	T-6F-S
S50U-TLANR16-D850	CSTB-4L115-S	-	TSL16LI	PSP-16	KEYV-T15	-
S50U-TLANL16-D850	CSTB-4L115-S	-	TSL16RI	PSP-16	KEYV-T15	-

INSERT

LNMX12/16/24



Designation	rε	Coated T9115 R	T9115 L	T9125 R	T9125 L	AH725 R	AH725 L	W	L	h
LNMX120408R/L-TDR	0.8	●	●	●	●			4.8	12	11.6
LNMX120412R/L-TDR	1.2	●	●	●	●			4.8	12	11.6
LNMX160608R/L-TDR	0.8	●	●	●	●			6.4	16.2	13.5
LNMX160612R/L-TDR	1.2	●	●	●	●			6.4	16.2	13.5
LNMX160616R/L-TDR	1.6	●	●	●	●			6.4	16.2	13.5
LNMX241016R/L-TDR	1.6	●	●	●	●			9.4	24	20.5
LNMX241024R/L-TDR	2.4	●	●	●	●			9.4	24	20.5
LNMX160608R/L-MDR	0.8	●	●			●	●	6.4	16.2	13.5
LNMX160612R/L-MDR	1.2	●	●			●	●	6.4	16.2	13.5
LNMX160608R/L-TWR	0.8	●	●	●	●			6.4	16.2	13.5
LNMX160612R/L-TWR	1.2	●	●	●	●			6.4	16.2	13.5

● : Line up

Reference pages

Standard cutting conditions → **B261**

STANDARD CUTTING CONDITIONS

LNMX1204

*** Values in red shows the condition for facing**

ISO	Workpiece material	Chip-breaker	Grade	Cutting speed *Vc* (m/min)	Depth of cut: *ap* (mm)		Feed: *f* (mm/rev)	
					r_ε : 0.8	r_ε : 1.2	r_ε : 0.8	r_ε : 1.2
P	Steels C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8

LNMX1606

ISO	Workpiece material	Chip-breaker	Grade	Cutting speed *Vc* (m/min)	Depth of cut: *ap* (mm)			Feed: *f* (mm/rev)		
					r_ε : 0.8	r_ε : 1.2	r_ε : 1.6	r_ε : 0.8	r_ε : 1.2	r_ε : 1.6
P	Steels C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TWR	T9115	120 - 250	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		MDR	T9115	100 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		MDR	AH725	50 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		TWR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-

LNMX2410

ISO	Workpiece material	Chip-breaker	Grade	Cutting speed *Vc* (m/min)	Depth of cut: *ap* (mm)		Feed: *f* (mm/rev)	
					r_ε : 1.6	r_ε : 2.4	r_ε : 1.6	r_ε : 2.4
P	Steels C45, 18CrMo4, etc.	TDR	T9115	120 - 250	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
M	Stainless steelss X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1

TurnLine - Internal Toolholder

MINIFORCE TURN

B268

Economical double-sided inserts with excellent sharpness

Shank ø10 - 20 mm

ISOECO TURN

B274

Small-sized “Eco” insert series for maximized profits

Shank ø16 - 32 mm

STREAMJETBAR

B278

Highly rigid toolholders providing good chip evacuation

Shank ø4 - 50 mm

TURNINGA

B297

Highly rigid clamping system with excellent repeatability

Shank ø25 - 50 mm

Y-PRO SERIES

B300

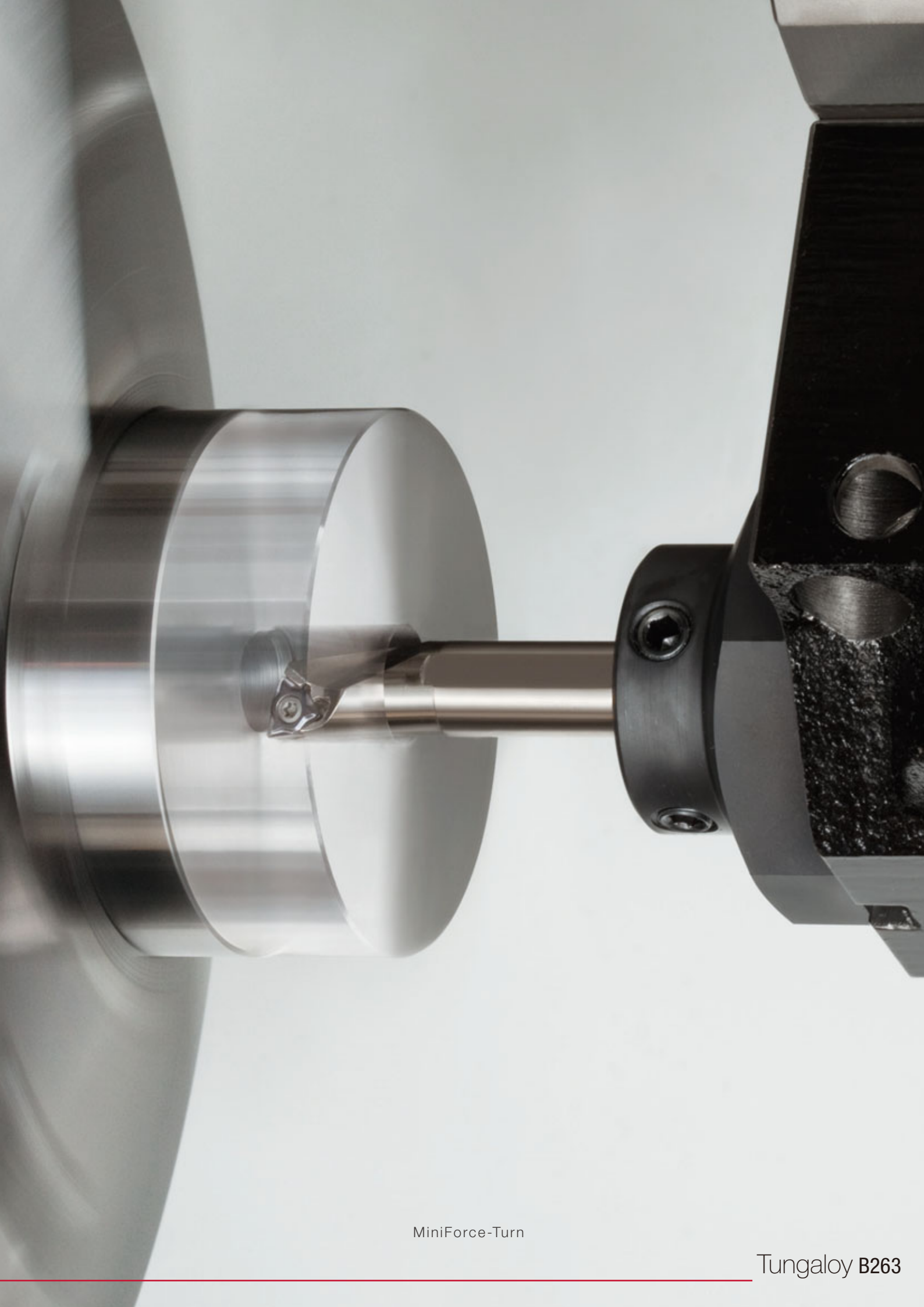
Inserts with 25° corner angle for profiling

Shank ø12 - 16 mm

ISO-Turn Internal

B301

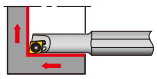
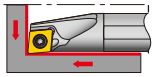
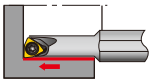
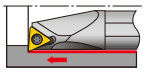
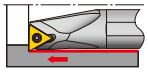
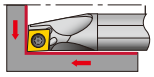
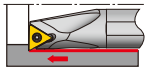
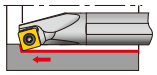
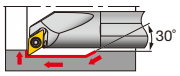
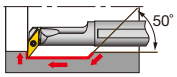
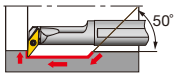
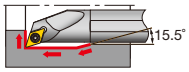
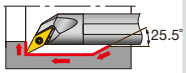
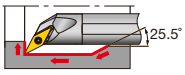
Toolholders for general internal turning

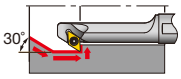
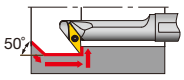
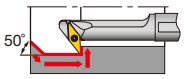
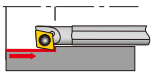
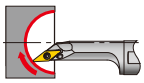
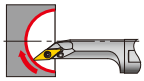
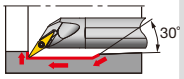
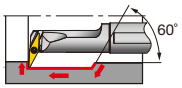


MiniForce-Turn

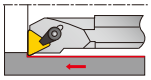
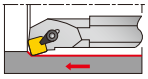
Internal Toolholder - Quick Guide

Positive type

Style	StreamJet-Bar Description & Application	ISO Insert	Y-Pro	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SEXPR/L** Boring & internal facing Insert type: EP□□	✓		Steel Carbide	ø4 - ø8 ø4 - ø8	ø4.5 – ø7 ø4.5 – ø7	B279 B281
	**SCLCR/L** Boring & internal facing Insert type: CC□□	✓		Steel Carbide Reinforced	ø4 - ø25 ø4 - ø25 ø12 - ø25	ø5 – ø27 ø5 – ø27 ø16 – ø32	B278 B301
	**SWUBR/L** Boring Insert type: WB□□	✓		Steel Carbide	ø5 - ø8 ø5 - ø8	ø6 – ø8 ø6 – ø8	B286
	**STUPR/L** Boring Insert type: TP□□	✓		Steel Carbide Reinforced	ø7 - ø32 ø7 - ø25 ø12 - ø25	ø8 – ø34 ø8 – ø27 ø14 – ø31	B285 B302
	**STFPR/L** Blind hole boring Insert type: TP□□	✓		Steel Carbide	ø8 - ø25 ø8 - ø20	ø10 – ø27 ø10 – ø22	B284
	**SCLPR/L** Boring & internal facing Insert type: CP□□	✓		Steel Carbide Reinforced	ø8 - ø25 ø8 - ø16 ø12 - ø25	ø10 – ø27 ø10 – ø20 ø14 – ø32	B280 B301
	**STFCR/L** Blind hole boring Insert type: TC□□	✓		Steel Carbide	ø10 - ø16 ø10 - ø16	ø12 – ø18 ø12 – ø18	B283
	**SSKPR/L** Through boring Insert type: SP□□	✓		Steel	ø16 - ø25	ø20 – ø31	B282
	**SDUCR/L** Boring & internal profiling Insert type: DC□□	✓		Steel Carbide	ø10 - ø25 ø10 - ø20	ø13 – ø32 ø13 – ø27	B287
	**SVUCR/L** Boring & internal profiling Insert type: VC□□	✓		Steel Carbide Reinforced	ø12 - ø25 ø12 - ø25 ø25	ø16 – ø32 ø18 – ø32 ø32	B288 B303
	**SVUBR/L** Boring & internal profiling Insert type: VB□□	✓		Steel Carbide Reinforced	ø16 - ø25 ø16 - ø25 ø20	ø20 – ø32 ø24.5 – ø34 ø25	B287 B303
	**SDQCR/L** Boring & internal profiling Insert type: DC□□	✓		Steel Carbide Reinforced	ø10 - ø25 ø10 - ø20 ø16 - ø25	ø13 – ø30 ø13 – ø25 ø20 – ø32	B288 B303
	**SVQCR/L** Boring & internal profiling Insert type: VC□□	✓		Steel Carbide Reinforced	ø10 - ø16 ø10 - ø16 ø25	ø13.5 – ø21.5 ø13.5 – ø21.5 ø32	B289 B304
	**SVQBR/L** Boring & internal profiling Insert type: VB□□	✓		Steel Carbide Reinforced	ø12 - ø25 ø12 - ø25 ø20	ø17 – ø30.5 ø17 – ø30.5 ø25	B289 B304

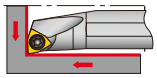
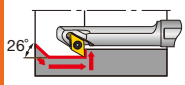
Style	StreamJet-Bar Description & Application	ISO Insert	Y-Pro	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SDZCR/L** Internal retracting Insert type: DC□□	✓		Steel Carbide	ø12 - ø25 ø12 - ø16	ø14 – ø25 ø18 – ø22	B290
	**SVZCR/L** Internal retracting Insert type: VC□□	✓		Steel	ø12	ø16	B291
	**SVZBR/L** Internal retracting Insert type: VB□□	✓		Steel	ø16 - ø32	ø20 – ø40	B291
	**SEZPR/L** Internal retracting Insert type: EP□□	✓		Steel Carbide	ø4 - ø5 ø4 - ø5	ø5.5 – ø6.5 ø5.5 – ø6.5	B292
	**SVJCR/L** Internal sphere cutting Insert type: VC□□	✓		Steel	ø12 - ø16	ø16 – ø20	B282
	**SVJBR/L** Internal sphere cutting Insert type: VB□□	✓		Steel	ø20 - ø25	ø25 – ø30	B282
	**SYQBR/L** Internal undercut & profiling Insert type: YW□□		✓	Steel Carbide	ø12 - ø16 ø12 - ø16	ø17 – ø21.5 ø17 – ø21.5	B300
	**SYUBR/L** Boring & internal profiling Insert type: YW□□		✓	Steel Carbide	ø16 ø12 - ø16	ø20 ø20 – ø24.5	B300

Clamp-on

Style	Description & Aplication	ISO insert	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**CTFPR/L** Blind hole boring Insert type: TP□□ (Without hole)	✓	Steel Carbide	ø12 - ø32 ø12 - ø16	ø16 – ø40 ø16 – ø20	B305
	**CSKPR/L** Through boring Insert type: SP□□ (Without hole)	✓	Steel	ø16 - ø25	ø20 – ø32	B305

Internal Toolholder - Quick Guide

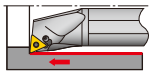
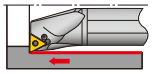
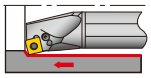
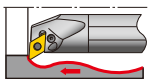
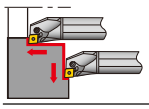
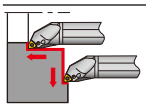
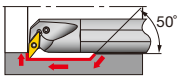
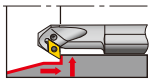
MiniForce-Turn - Double-sided insert with positive cutting edges

Style	MiniForce-Turn Description & Application	MiniForce -Turn	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SWLXR/L** Boring & facing Insert type: WXGU	✓	Steel Carbide	ø10 - ø20 ø10 - ø20	ø12 – ø22 ø12 – ø22	B268
	SDXXR/L Internal profiling Insert type: DXGU	✓	Steel Carbide	ø10 - ø20 ø10 - ø20	ø13 – ø24 ø13 – ø24	B268
	**SDZXR/L** Internal retracting Insert type: DXGU	✓	Steel Carbide	ø12 - ø20 ø12 - ø16	ø14 – ø20 ø18 – ø22	B269

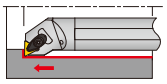
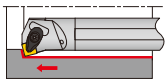
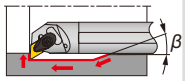
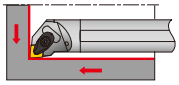
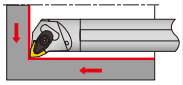
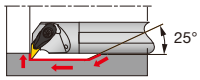
Internal Toolholder - Quick Guide

Negative type

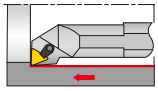
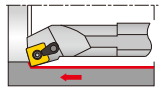
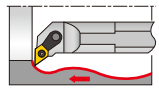
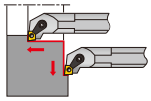
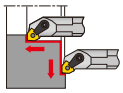
Lever-lock

Style	StreamJet-Bar Description & Application	ISO insert	ISO-EcoTurn	Shank Type	Shank Ø	Min. bore diameter (mm) (20 30 40 50 60 70)	See page
	**PTUNR/L** Boring Insert type: TN□□	✓	✓	Steel Reinforced	ø16 - ø32 ø16 - ø50	ø20 – ø40 ø20 – ø63	B277 B295 B309 B310
	**PTFNR/L** Boring Insert type: TN□□	✓	✓	Steel	ø25 - ø50	ø32 – ø63	B276 B294 B308
	**PSKNR/L** Through boring Insert type: SN□□	✓		Steel	ø32 - ø50	ø40 – ø63	B293 B307
	**PDUNR/L** Internal profiling Insert type: DN□□	✓	✓	Steel Reinforced	ø20 - ø50 ø32 - ø50	ø25 – ø63 ø40 – ø63	B276 B295 B308 B309 B317
	**PCLNR/L** Boring & internal facing Insert type: CN□□, GN□□	✓	✓	Steel Reinforced	ø16 - ø50 ø16 - ø50	ø20 – ø63 ø20 – ø63	B274 B292 B306 B317
	**PWLNR/L** Boring & facing Insert type: WN□□	✓	✓	Steel	ø16 - ø40	ø20 – ø50	B275 B293 B307
	**PVUNR/L** Boring & internal profiling Insert type: VN□□	✓	✓	Steel	ø25 - ø40	ø32 – ø50	B277 B296
	**PDZNR/L** Internal retracting Insert type: DN□□	✓		Steel	ø32 - ø50	ø40 – ø63	B296 B310

Double-clamp

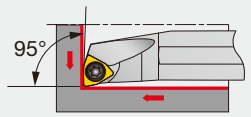
Style	Turning A Description & Application	ISO insert	ISO-EcoTurn	Shank Type	Shank Ø	Min. bore diameter (mm)	See page
	**ATFNR/L** Boring Insert type: TN□□	✓		Steel	ø25 - ø32	ø32 – ø40	B298
	**ASKNR/L** Boring Insert type: SN□□	✓		Steel	ø25 - ø32	ø32 – ø40	B298
	**ADUNR/L** Boring & internal profiling Insert type: DN□□	✓	✓	Steel	ø25 - ø50	ø32 – ø63	B276 B299
	**ACLNR/L** Boring & internal facing Insert type: CN□□, GN□□	✓	✓	Steel	ø25 - ø50	ø32 – ø63	B274 B297
	**AWLNR/L** Boring & internal facing Insert type: WN□□	✓	✓	Steel	ø25 - ø50	ø32 – ø63	B275 B297
	**AVUNR/L** Boring & internal profiling Insert type: VN□□	✓		Steel	ø32 - ø40	ø40 – ø50	B299

Multi-clamp

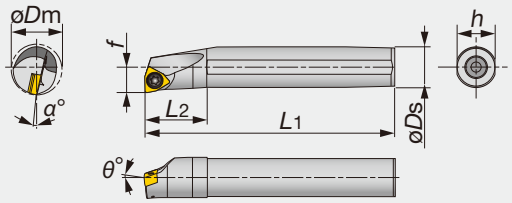
Style	Description & Application	ISO insert	Shank Type	Shank Ø	Min. bore diameter (mm)	See page
	**MTFNR/L** Boring Insert type: TN□□	✓	Steel	ø25	ø32	B312
	**MSKNR/L** Through boring Insert type: SN□□	✓	Steel	ø25	ø32	B312
	**MDUNR/L** Boring & internal profiling Insert type: DN□□	✓	Steel	ø25	ø32	B313
	**MCLNR/L** Boring & internal facing Insert type: CN□□, GN□□	✓	Steel	ø25	ø32	B311
	**MWLNR/L** Boring & internal facing Insert type: WN□□	✓	Steel	ø25 - ø50	ø32 – ø70	B311

MINIFORCE TURN
A/E-SWLXR/L

For trigon insert with 6 edges



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A10K-SWLXR/L04-D120	STEEL	12	10	6	125	20	9	-10	-16	0.4	WXGU0403**L/R...	0.9
A12M-SWLXR/L04-D140	STEEL	14	12	7	150	24	11	-10	-14	0.4	WXGU0403**L/R...	0.9
A16Q-SWLXR/L04-D180	STEEL	18	16	9	180	32	15	-10	-11	0.4	WXGU0403**L/R...	0.9
A20R-SWLXR/L04-D220	STEEL	22	20	11	200	36	18	-10	-10	0.4	WXGU0403**L/R...	0.9
E10M-SWLXR/L04-D120	CARBIDE	12	10	6	150	25	9	-10	-16	0.4	WXGU0403**L/R...	0.9
E12Q-SWLXR/L04-D140	CARBIDE	14	12	7	180	27	11	-10	-14	0.4	WXGU0403**L/R...	0.9
E16R-SWLXR/L04-D180	CARBIDE	18	16	9	200	32	15	-10	-11	0.4	WXGU0403**L/R...	0.9
E20S-SWLXR/L04-D220	CARBIDE	22	20	11	250	36	18	-10	-10	0.4	WXGU0403**L/R...	0.9

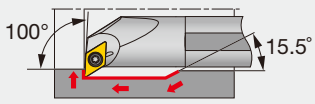
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right hand toolholders (R) are used with left hand inserts (L) Left hand toolholders (L) are used with right hand inserts (R)

SPARE PARTS

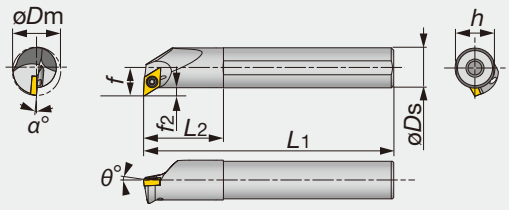
Designation	Clamping screw	Wrench
A/E**-SWLXR/L...	SR34-514	T-7F

MINIFORCE TURN
A/E-SDXXR/L

For 55° rhombic insert with 4 edges



Cutting edge style **X**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A10K-SDXXR/L07-D130	STEEL	13	10	7.6	125	20	9	2.6	-14	-16	0.4	DXGU0703**L/R...	0.9
A12M-SDXXR/L07-D160	STEEL	16	12	8.6	150	24	11	2.6	-14	-14	0.4	DXGU0703**L/R...	0.9
A16Q-SDXXR/L07-D200	STEEL	20	16	10.6	180	32	15	2.6	-13	-13	0.4	DXGU0703**L/R...	0.9
A20R-SDXXR/L07-D240	STEEL	24	20	12.6	200	36	18	2.6	-13	-12	0.4	DXGU0703**L/R...	0.9
E10M-SDXXR/L07-D130	CARBIDE	13	10	7.6	150	25	9	2.6	-14	-16	0.4	DXGU0703**L/R...	0.9
E12Q-SDXXR/L07-D160	CARBIDE	16	12	8.6	180	27	11	2.6	-14	-14	0.4	DXGU0703**L/R...	0.9
E16R-SDXXR/L07-D200	CARBIDE	20	16	10.6	200	32	15	2.6	-13	-13	0.4	DXGU0703**L/R...	0.9
E20S-SDXXR/L07-D240	CARBIDE	24	20	12.6	250	36	18	2.6	-13	-12	0.4	DXGU0703**L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right hand toolholders (R) are used with left hand inserts (L) Left hand toolholders (L) are used with right hand inserts (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDXXR/L...	SR34-514	T-7F

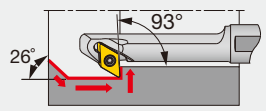
Reference pages

A/E-SWLXR/L: Inserts → **B270**, Standard cutting conditions → **B273**

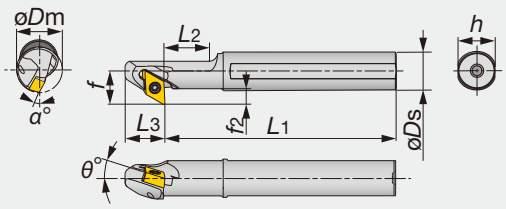
A/E-SDXXR/L: Inserts → **B271 -**, Standard cutting conditions → **B273**

A/E-SDZXR/L

For 55° rhombic insert with 4 edges



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SDZXR/L07-D140	STEEL	14	12	10.5	150	30	13	11	4.5	-10	-14	0.4	DXGU0703**R/L...	0.9
A16Q-SDZXR/L07-D160	STEEL	16	16	12.5	180	35	13	15	4.5	-10	-12.5	0.4	DXGU0703**R/L...	0.9
A20R-SDZXR/L07-D200	STEEL	20	20	14.5	200	40	13	18	4.5	-10	-10.5	0.4	DXGU0703**R/L...	0.9
E12Q-SDZXR/L07-D180	CARBIDE	18	12	10.5	180	-	13	11	4.5	-11	-11	0.4	DXGU0703**R/L...	0.9
E16R-SDZXR/L07-D220	CARBIDE	22	16	12.5	200	-	13	15	4.5	-11	-9	0.4	DXGU0703**R/L...	0.9

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: Right hand toolholders (R) are used with right hand inserts (R) Left hand toolholders (L) are used with left hand inserts (L)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDZXR/L...	SR34-514	T-7F

Reference pages

A/E-SDZXR/L: Inserts → **B271 -**, Standard cutting conditions → **B273**

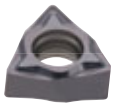
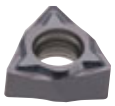
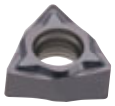
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

INSERT

POSITIVE TYPE DOUBLE-SIDED

Trigon, 80° with hole

		AH725	SH725	GT9530	NS9530	KS05F
P	Steel	◐	●◐	●◐	●◐	
M	Stainless	◐	●◐			
K	Cast iron	◐		●◐	●◐	●
N	Non-ferrous					●
S	Superalloys	●				●
H	Hard materials					

Application	Chipbreaker	Designation	Corner radius	Coated: AH725	Coated: SH725	Coated cermet: GT9530	Cermet: NS9530	Uncoated: KS05F
Finishing to medium cutting (Sharp edge)	JTS 	WXGU040301MFR-JTS	<0.1*		●			
		WXGU040301MFL-JTS	<0.1*		●			
		WXGU040302MFR-JTS	<0.2*		●			
		WXGU040302MFL-JTS	<0.2*		●			
Finishing to medium cutting	JTS	WXGU040301MR-JTS	<0.1*	●				
		WXGU040301ML-JTS	<0.1*	●				
		WXGU040302MR-JTS	<0.2*	●				
		WXGU040302ML-JTS	<0.2*	●				
Finishing (Low cutting force) (Sharp edge)	JSS	WXGU040301MFR-JSS	<0.1*		●			
		WXGU040301MFL-JSS	<0.1*		●			
		WXGU040302MFR-JSS	<0.2*		●			
		WXGU040302MFL-JSS	<0.2*		●			
Finishing (Low cutting force)	JSS	WXGU040301MR-JSS	<0.1*	●				
		WXGU040301ML-JSS	<0.1*	●				
		WXGU040302MR-JSS	<0.2*	●				
		WXGU040302ML-JSS	<0.2*	●				
Finishing to medium cutting	TS 	WXGU040302R-TS	0.2	●		●	●	●
		WXGU040302L-TS	0.2	●		●	●	●
		WXGU040304R-TS	0.4	●		●	●	●
		WXGU040304L-TS	0.4	●		●	●	●
		WXGU040308R-TS	0.8	●		●	●	●
		WXGU040308L-TS	0.8	●		●	●	●
Finishing (Wiper)	TSW 	WXGU040304R-TSW	0.4	●		●	●	
		WXGU040304L-TSW	0.4	●		●	●	
		WXGU040308R-TSW	0.8	●		●	●	
		WXGU040308L-TSW	0.8	●		●	●	
Finishing (Low cutting force)	SS	WXGU040302R-SS	0.2	●		●	●	●
		WXGU040302L-SS	0.2	●		●	●	●
		WXGU040304R-SS	0.4	●		●	●	●
		WXGU040304L-SS	0.4	●		●	●	●

* Corner radius has minus tolerance

● : Line up

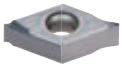
● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

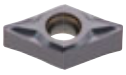
POSITIVE TYPE DOUBLE-SIDED

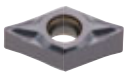
Rhombic, 55° with hole

		AH725	SH725
P	Steel	◐	●◐
M	Stainless	◐	●◐
K	Cast iron	◐	
N	Non-ferrous		
S	Superalloys	●	
H	Hard materials		

Application	Chipbreaker	Designation	Corner radius	AH725 (Coated)	SH725 (Coated)
Finishing (sharp edge)	JRP	DXGU070301MFRE-JRP	<0.1*		●
		DXGU070301MFLE-JRP	<0.1*		●
		DXGU070302MFRE-JRP	<0.2*		●
		DXGU070302MFLE-JRP	<0.2*		●
Finishing to medium cutting(sharp edge)	JTS	DXGU070301MFR-JTS	<0.1*		●
		DXGU070301MFL-JTS	<0.1*		●
		DXGU070302MFR-JTS	<0.2*		●
		DXGU070302MFL-JTS	<0.2*		●
Finishing to medium cutting	JTS	DXGU070301MR-JTS	<0.1*	●	
		DXGU070301ML-JTS	<0.1*	●	
		DXGU070302MR-JTS	<0.2*	●	
		DXGU070302ML-JTS	<0.2*	●	
Finishing (Low cutting force)(sharp edge)	JSS	DXGU070301MFR-JSS	<0.1*		●
		DXGU070301MFL-JSS	<0.1*		●
		DXGU070302MFR-JSS	<0.2*		●
		DXGU070302MFL-JSS	<0.2*		●







* Corner radius has minus tolerance

● : Line up

● : Continuous cutting
◐ : Light interrupted cutting
✠ : Heavy interrupted cutting

INSERT

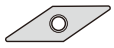
POSITIVE TYPE DOUBLE-SIDED

Rhombic, 55° with hole

		AH725 (Coated)	GT9530 (Coated cermet)	NS9530 (Cermet)	KS05F (Uncoated)
P	Steel	◐	●◐	●◐	
M	Stainless	◐			
K	Cast iron	◐	●◐	●◐	●
N	Non-ferrous				●
S	Superalloys	●			●
H	Hard materials				

Application	Chipbreaker	Designation	Corner radius	AH725	GT9530	NS9530	KS05F
Finishing (Low cutting force)	JSS	DXGU070301MR-JSS	<0.1*	●			
		DXGU070301ML-JSS	<0.1*	●			
		DXGU070302MR-JSS	<0.2*	●			
		DXGU070302ML-JSS	<0.2*	●			
Finishing to medium cutting	TS	DXGU070302R-TS	0.2	●	●	●	●
		DXGU070302L-TS	0.2	●	●	●	●
		DXGU070304R-TS	0.4	●	●	●	●
		DXGU070304L-TS	0.4	●	●	●	●
		DXGU070308R-TS	0.8	●	●	●	●
		DXGU070308L-TS	0.8	●	●	●	●
Finishing (Low cutting force)	SS	DXGU070302R-SS	0.2	●	●	●	●
		DXGU070302L-SS	0.2	●	●	●	●
		DXGU070304R-SS	0.4	●	●	●	●
		DXGU070304L-SS	0.4	●	●	●	●

POSITIVE TYPE DOUBLE-SIDED



Rhombic, 35° with hole

		SH725 (Coated)
P	Steel	●◐
M	Stainless	●◐
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	

Application	Chipbreaker	Designation	Corner radius	SH725
Finishing (sharp edge)	JRP	VXGU09T201MFRE-JRP	<0.1*	●
		VXGU09T201MFLE-JRP	<0.1*	●
		VXGU09T202MFRE-JRP	<0.2*	●
		VXGU09T202MFLE-JRP	<0.2*	●

* Corner radius has minus tolerance

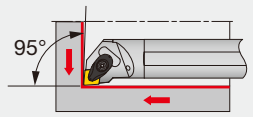
● : Line up

STANDARD CUTTING CONDITIONS
FOR INTERNAL TURNING

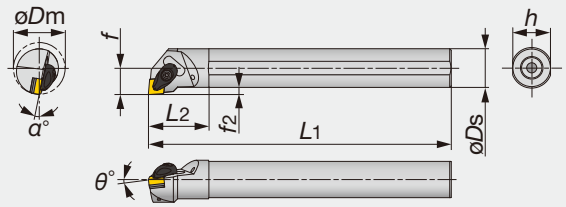
ISO	Workpiece material	Grade			Cutting speed *Vc* (m/min)	Depth of cut *ap* (mm)	Feed *f* (mm/rev)
		First Choice	For surface finish	For wear resistance (High speed)			
P	Low carbon steel E275A, C25, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Carbon steel C45, C55, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Low alloy steel 18CrMo4, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Alloy steel 42CrMo4, 20Cr4, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
M	Stainless steel (Austenitic) X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH725	-	-	50 - 150	0.3 - 2	0.08 - 0.3
	Stainless steel (Martensitic and ferritic) X6Cr17, X20Cr13, etc.	AH725	-	-	50 - 150	0.3 - 2	0.08 - 0.3
	Stainless steel (Precipitation hardening) X5CrNiCuNb16-4, etc.	AH725	-	-	50 - 150	0.3 - 2	0.08 - 0.3
K	Grey cast iron 250, etc.	AH725	-	-	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Ductile cast iron 600-3, etc.	AH725	-	-	50 - 120	0.3 - 2	0.08 - 0.3
		-	NS9530	-	80 - 150	0.3 - 2	0.08 - 0.3
		-	-	GT9530	80 - 180	0.3 - 2	0.08 - 0.3
N	Non ferrous Metal Aluminum alloy, etc.	KS05F	-	-	100 - 300	0.3 - 2	0.08 - 0.3
	Non ferrous Metal Copper Alloy, etc.	KS05F	-	-	100 - 300	0.3 - 2	0.08 - 0.3

ISOECOTURN
A-ACLNR/L-Eco

Double-clamp boring bar, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-ACLNR/L0904-D320	STEEL	32	25	17	200	45	23	4	-6	-13	0.8	CN**0904...	3
A32S-ACLNR/L0904-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	CN**0904...	3

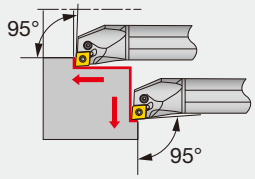
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

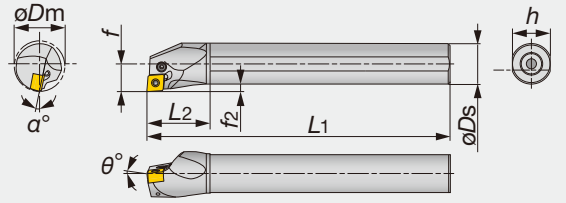
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L0904...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F

ISOECOTURN
A-PCLNR/L-Eco

Lever clamp boring bars, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16M-PCLNR/L0904-D200	STEEL	20	16	11	150	32	15	3	-6	-16	0.8	CN**0904...	1.7
A20Q-PCLNR/L0904-D250	STEEL	25	20	13	180	36	18	3	-6	-12	0.8	CN**0904...	1.7

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

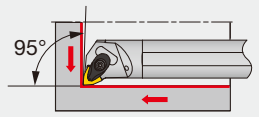
Designation	Clamping screw	Wrench	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A16M-PCLNR/L0904-D200	LCS33	P-2F	LCL33N	-	(SSHM3-4)
A20Q-PCLNR/L0904-D250	LCS33	P-2F	LCL33N	(EA20)	(SSHM3-4)

Reference pages

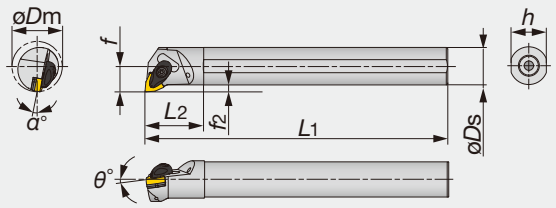
A-ACLNR/L-Eco, A-PCLNR/L-Eco: Inserts → **B050 -**

ISOECOTURN
A-AWLNR/L-Eco

Double-clamp boring bars, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-AWLNR/L0604-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	WN**0604...	3
A32S-AWLNR/L0604-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	WN**0604...	3

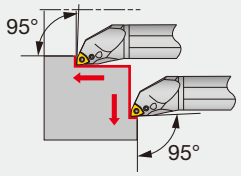
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

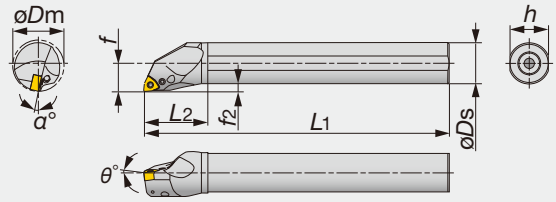
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F

ISOECOTURN
A-PWLNR/L-Eco

Lever clamp boring bars, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16M-PWLNR/L0604-D200	STEEL	20	16	11	150	32	15	3	-8	-17	0.8	WN**0604...	1.7
A20Q-PWLNR/L0604-D250	STEEL	25	20	13	180	36	18	3	-6	-14	0.8	WN**0604...	1.7

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

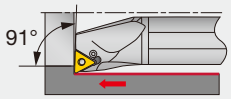
Designation	Clamping screw	Wrench	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A16M-PWLNR/L0604-D200	LCS33	P-2F	LCL33N	-	(SSHM3-4)
A20Q-PWLNR/L0604-D250	LCS33	P-2F	LCL33N	(EA-20)	(SSHM3-4)

Reference pages

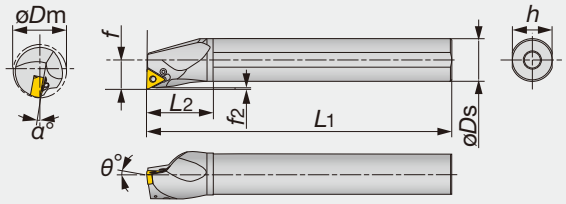
A-AWLNR/L-Eco, A-PWLNR/L-Eco: Inserts → **B095 -**

ISOETURN
A-PTFNR/L-Eco

Lever clamp boring bars, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-PTFNR/L1104-D320	STEEL	32	25	17	200	45	23	1.31	-6	-12	0.8	TN**1104...	2
A32S-PTFNR/L1104-D400	STEEL	40	32	22	250	50	30	1.25	-6	-10	0.8	TN**1104...	2

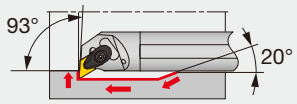
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

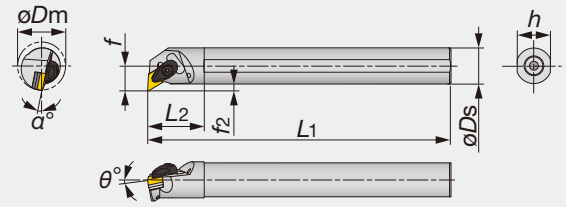
Designation	Clamping screw	Wrench	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A25R-PTFNR/L...	LCS23A	P-2.5	LCL23	(EA-25)	(SSHM4-5)
A32S-PTFNR/L...	LCS23A	P-2.5	LCL23	(EA-32)	(SSHM4-5)

ISOETURN
A-ADUNR/L-Eco

Double-clamp boring bars, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-ADUNR/L1104-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	DN**1104...	3
A32S-ADUNR/L1104-D400	STEEL	40	32	22	250	50	30	6	-6	-11	0.8	DN**1104...	3

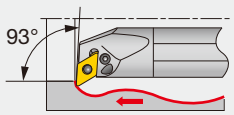
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

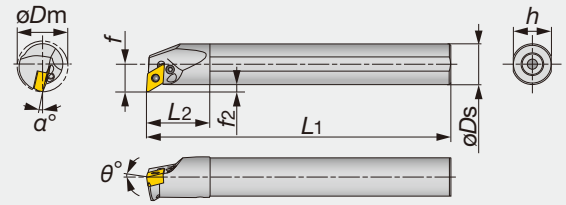
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F

ISOETURN
A-PDUNR/L-Eco

Lever clamp boring bars, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A20Q-PDUNR/L1104-D250	STEEL	25	20	13	180	36	18	3	-6	-14	0.8	DN**1104...	1.7

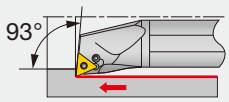
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (PDUNL ** type), and the left hand insert (L) is used for the right hand toolholders (PDUNR ** type).

SPARE PARTS

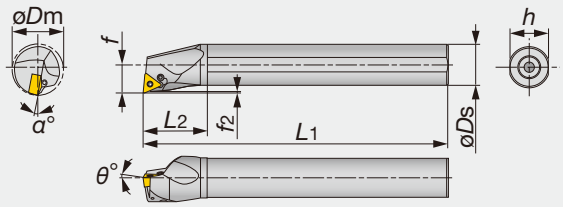
Designation	Clamping screw	Wrench	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A20Q-PDUNR/L1104-D250	LCS22A	P-2F	LCL33NL	(EA-20)	(SSHM2.5-3)

ISOETURN
A-PTUNR/L-Eco

Lever clamp boring bars, for negative triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-PTUNR/L1104-D320	STEEL	32	25	17	200	45	23	1.22	-6	-12	0.8	TN**1104...	2
A32S-PTUNR/L1104-D400	STEEL	40	32	22	250	50	30	1.16	-6	-10	0.8	TN**1104...	2

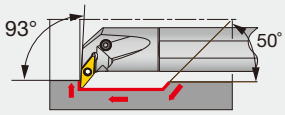
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

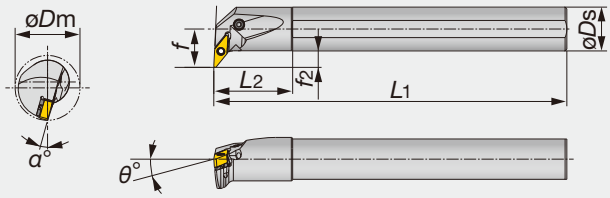
Designation	Clamping screw	Wrench	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A25R-PTUNR/L1104-D320	LCS23A	P-2.5	LCL23	(EA-25)	(SSHM4-5)
A32S-PTUNR/L1104-D400	LCS23A	P-2.5	LCL23	(EA-32)	(SSHM4-5)

ISOETURN
A-PVUNR/L-Eco

Lever lock type boring bars. For negative 35° rhombic insert.



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-PVUNR/L1204-D320	STEEL	32	25	18	200	45	23	5.0	-5	-15	0.8	VN**1204...	3
A25R-PVUNR/L1204-D370	STEEL	37	25	22	200	45	23	8.0	-4	-15	0.8	VN**1204...	3
A32S-PVUNR/L1204-D400	STEEL	40	32	22	250	50	30	5.5	-6	-12	0.8	VN**1204...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Shim	Spring pin	Oil supply attachment	Coolant screw
A25R-PVUNR/L1204-D...	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-25	SSHM4-5
A32S-PVUNR/L1204-D400	LCS3V	P-2.5	LCL3V	LSV212	LSP3	EA-32	SSHM4-5

Reference pages

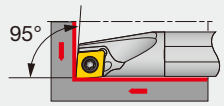
A-PTFNR/L-Eco, A-PTUNR/L-Eco: Inserts →**B080 -**

A-ADUNR/L-Eco, A-PDUNR/L-Eco: Inserts → **B061 -**

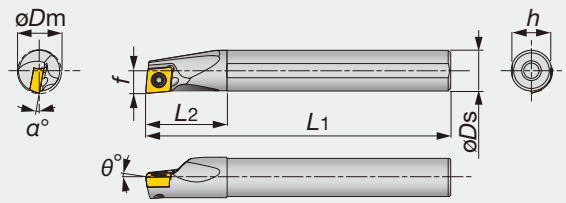
A-PVUNR/L-Eco: Inserts →**B091 -**

A/E-SCLCR/L

Screw-on boring bars, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A04F-SCLCR/L03-D050	STEEL	5	4	2.5	80	8	3.8	0	-15	0.2	CC**03X1...	0.6
A05F-SCLCR/L03-D060	STEEL	6	5	3	80	9	4.8	0	-13	0.2	CC**03X1...	0.6
A06G-SCLCR/L04-D070	STEEL	7	6	3.5	90	11	5.75	0	-13	0.2	CC**04T1...	0.6
A07G-SCLCR/L04-D080	STEEL	8	7	4	90	12	6.75	0	-11	0.2	CC**04T1...	0.6
A08H-SCLCR/L06-D100	STEEL	10	8	5.5	100	16	7.5	0	-13	0.4	CC**0602...	1.2
A10F-SCLCR06-D120	STEEL	12	10	6	80	20	9	0	-10	0.4	CC**0602...	1.2
A10K-SCLCR/L06-D120	STEEL	12	10	6	125	20	9	0	-10	0.4	CC**0602...	1.2
A12H-SCLCR06-D140	STEEL	14	12	7	100	24	11	0	-8	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D140	STEEL	14	12	7	150	24	11	0	-8	0.4	CC**0602...	1.2
A12H-SCLCR06-D160	STEEL	16	12	9	100	24	11	0	-7	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D160	STEEL	16	12	9	150	24	11	0	-7	0.4	CC**0602...	1.2
A16K-SCLCR09-D180	STEEL	18	16	9	125	32	15	0	-9	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D180	STEEL	18	16	9	180	32	15	0	-10	0.8	CC**09T3...	3
A16K-SCLCR09-D200	STEEL	20	16	11	125	32	15	0	-9	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D200	STEEL	20	16	11	180	32	15	0	-9	0.8	CC**09T3...	3
A20R-SCLCR/L09-D220	STEEL	22	20	11	200	32	18	0	-8	0.8	CC**09T3...	3
A25S-SCLCR/L09-D270	STEEL	27	25	13.5	250	45	23	0	-6	0.8	CC**09T3...	3
E04G-SCLCR/L03-D050	CARBIDE	5	4	2.5	90	9	3.8	0	-15	0.2	CC**03X1...	0.6
E05G-SCLCR/L03-D060	CARBIDE	6	5	3	90	10	4.8	0	-13	0.2	CC**03X1...	0.6
E06H-SCLCR/L04-D070	CARBIDE	7	6	3.5	100	12	5.75	0	-13	0.2	CC**04T1...	0.6
E07H-SCLCR/L04-D080	CARBIDE	8	7	4	100	14	6.75	0	-11	0.2	CC**04T1...	0.6
E08G-SCLCR06-D100	CARBIDE	10	8	5.5	90	22	7.5	0	-13	0.4	CC**0602...	1.2
E08K-SCLCR/L06-D100	CARBIDE	10	8	5.5	125	22	7.5	0	-13	0.4	CC**0602...	1.2
E10F-SCLCR06-D120	CARBIDE	12	10	6	80	25	9	0	-10	0.4	CC**0602...	1.2
E10H-SCLCR06-D120	CARBIDE	12	10	6	100	25	9	0	-10	0.4	CC**0602...	1.2
E10M-SCLCR/L06-D120	CARBIDE	12	10	6	150	25	9	0	-10	0.4	CC**0602...	1.2
E12G-SCLCR06-D140	CARBIDE	14	12	7	90	27	11	0	-8	0.4	CC**0602...	1.2
E12J-SCLCR06-D140	CARBIDE	14	12	7	110	27	11	0	-8	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D140	CARBIDE	14	12	7	180	27	11	0	-8	0.4	CC**0602...	1.2
E12G-SCLCR06-D160	CARBIDE	16	12	9	90	27	11	0	-7	0.4	CC**0602...	1.2
E12J-SCLCR06-D160	CARBIDE	16	12	9	110	27	11	0	-7	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D160	CARBIDE	16	12	9	180	27	11	0	-7	0.4	CC**0602...	1.2
E16H-SCLCR09-D180	CARBIDE	18	16	9	100	32	15	0	-10	0.8	CC**09T3...	3
E16L-SCLCR09-D180	CARBIDE	18	16	9	130	32	15	0	-10	0.8	CC**09T3...	3
E16R-SCLCR/L09-D180	CARBIDE	18	16	9	200	32	15	0	-10	0.8	CC**09T3...	3
E16H-SCLCR09-D200	CARBIDE	20	16	11	100	32	15	0	-9	0.8	CC**09T3...	3
E16L-SCLCR09-D200	CARBIDE	20	16	11	130	32	15	0	-9	0.8	CC**09T3...	3
E16R-SCLCR/L09-D200	CARBIDE	20	16	11	200	32	15	0	-9	0.8	CC**09T3...	3
E20S-SCLCR09-D220	CARBIDE	22	20	11	250	36	18	0	-8	0.8	CC**09T3...	3
E25T-SCLCR09-D270	CARBIDE	27	25	13.5	300	45	23	0	-6	0.8	CC**09T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SCLCL** type), and the left hand insert (L) is used for the right hand toolholders (SCLCR** type).

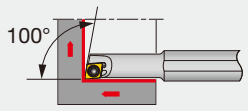
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SCLCR/L03-D...	CSTA-1.6	T-6F
A**-SCLCR/L04-D...	CSTB-2	T-6F
A**-SCLCR/L06-D...	CSTB-2.5S	T-8F
A**-SCLCR/L09-D...	CSTB-4S	T-15F
E**-SCLCR/L03-D...	CSTA-1.6	T-6F
E**-SCLCR/L04-D...	CSTB-2	T-6F
E**-SCLCR/L06-D...	CSTB-2.5S	T-8F
E16*-SCLCR/L09-D...	CSTB-4L060	T-15F
E2**-SCLCR/L09-D...	CSTB-4S	T-15F

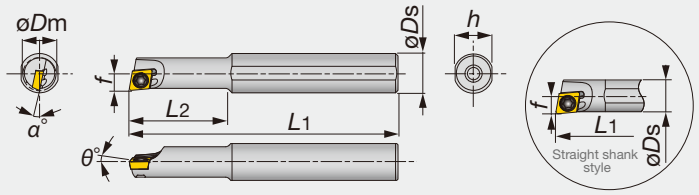
STREAMJETBAR

A/E-SEXPR/L

Screw-on boring bars, for positive 75° rhombic inserts



Cutting edge style **X**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A04F-SEXPR/L03-D045	STEEL	4.5	4	2.3	80	8	3.8	0	-15	0.2	EP**03X1...	0.6
A04F-SEXPR/L03-D050	STEEL	5	4	2.5	80	8	3.8	0	-13	0.2	EP**03X1...	0.6
A05F-SEXPR/L04-D055	STEEL	5.5	5	2.75	80	9	4.8	0	-12	0.4	EP**0401...	0.6
A06G-SEXPR/L04-D070	STEEL	7	6	3.6	90	11	5.75	0	-12	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D055	STEEL	5.5	8	2.75	100	16	7.5	0	-12	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D070	STEEL	7	8	3.6	100	20	7.5	0	-12	0.4	EP**0401...	0.6
E04G-SEXPR/L03-D045	CARBIDE	4.5	4	2.3	90	9	3.8	0	-15	0.2	EP**03X1...	0.6
E04G-SEXPR/L03-D050	CARBIDE	5	4	2.5	90	9	3.8	0	-13	0.2	EP**03X1...	0.6
E05G-SEXPR/L04-D055	CARBIDE	5.5	5	2.75	90	10	4.8	0	-12	0.4	EP**0401...	0.6
E06H-SEXPR/L04-D070	CARBIDE	7	6	3.6	100	12	5.75	0	-12	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D055	CARBIDE	5.5	8	2.75	125	28	7.5	0	-12	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D070	CARBIDE	7	8	3.6	125	40	7.5	0	-12	0.4	EP**0401...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SEXPL** type), and the left hand insert (L) is used for the right hand toolholders (SEXPR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEXPR/L03-D...	CSTA-1.6	T-6F
A**-SEXPR/L04-D...	CSTB-2	T-6F
E**-SEXPR/L03-D...	CSTA-1.6	T-6F
E**-SEXPR/L04-D...	CSTB-2	T-6F

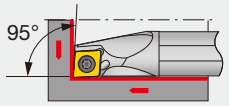
Reference pages

A/E-SCLCR/L: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

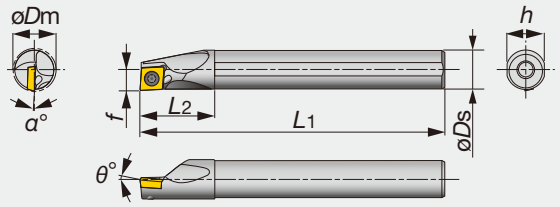
A/E-SEXPR/L: Inserts → **B122 -**, CBN → **B171**, PCD → **B178**

A/E-SCLPR/L

Screw-on boring bars, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A08H-SCLPR/L06-D100	STEEL	10	8	5.5	100	16	7.5	5	-8	0.4	CP**0602...	1.2
A10K-SCLPR/L06-D120	STEEL	12	10	6	125	20	9	5	-5	0.4	CP**0602...	1.2
A10K-SCLPR/L08-D120	STEEL	12	10	6	125	20	9	5	-5	0.4	CP**0802...	1.4
A12M-SCLPR/L06-D140	STEEL	14	12	7	150	24	11	5	-4	0.4	CP**0602...	1.2
A12M-SCLPR/L08-D140	STEEL	14	12	7	150	24	11	5	-4	0.4	CP**0802...	1.4
A12M-SCLPR/L08-D160	STEEL	16	12	9	150	24	11	5	-3	0.4	CP**0802...	1.4
A16Q-SCLPR/L09-D180	STEEL	18	16	9	180	32	15	5	-3.5	0.8	CP**0903...	3
A16Q-SCLPR/L09-D200	STEEL	20	16	11	180	32	15	5	-3	0.8	CP**0903...	3
A20R-SCLPR/L09-D220	STEEL	22	20	11	200	36	18	5	-2	0.8	CP**0903...	3
A25S-SCLPR/L09-D270	STEEL	27	25	13.5	250	45	23	5	-1	0.8	CP**0903...	3
E08K-SCLPR/L06-D100	CARBIDE	10	8	5.5	125	22	7.5	5	-8	0.4	CP**0602...	1.2
E10M-SCLPR/L06-D120	CARBIDE	12	10	6	150	25	9	5	-5	0.4	CP**0602...	1.2
E10H-SCLPR08-D120	CARBIDE	12	10	6	100	25	9	5	-5	0.4	CP**0802...	1.4
E10M-SCLPR/L08-D120	CARBIDE	12	10	6	150	25	9	5	-5	0.4	CP**0802...	1.4
E12Q-SCLPR/L06-D140	CARBIDE	14	12	7	180	27	11	5	-4	0.4	CP**0602...	1.2
E12G-SCLPR08-D140	CARBIDE	14	12	7	90	27	11	5	-4	0.4	CP**0802...	1.4
E12J-SCLPR08-D140	CARBIDE	14	12	7	110	27	11	5	-4	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D140	CARBIDE	14	12	7	180	27	11	5	-4	0.4	CP**0802...	1.4
E12G-SCLPR08-D160	CARBIDE	16	12	9	90	27	11	5	-3	0.4	CP**0802...	1.4
E12J-SCLPR08-D160	CARBIDE	16	12	9	110	27	11	5	-3	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D160	CARBIDE	16	12	9	180	27	11	5	-3	0.4	CP**0802...	1.4
E16H-SCLPR09-D180	CARBIDE	18	16	9	100	32	15	5	-3.5	0.8	CP**0903...	3
E16L-SCLPR09-D180	CARBIDE	18	16	9	130	32	15	5	-3.5	0.8	CP**0903...	3
E16R-SCLPL09-D180	CARBIDE	18	16	9	200	32	15	5	-3.5	0.8	CP**0903...	3
E16H-SCLPR09-D200	CARBIDE	20	16	11	100	32	15	5	-3	0.8	CP**0903...	3
E16L-SCLPR09-D200	CARBIDE	20	16	11	130	32	15	5	-3	0.8	CP**0903...	3
E16R-SCLPL09-D200	CARBIDE	20	16	11	200	32	15	5	-3	0.8	CP**0903...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SCLPL** type), and the left hand insert (L) is used for the right hand toolholders (SCLPR** type).

SPARE PARTS

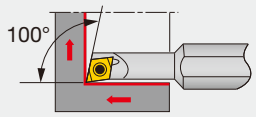
Designation	Clamping screw	Wrench
A**-SCLPR/L06-D...	CSTB-2.5S	T-8F
A10K-SCLPR/L08-D120	CSTB-3L042	T-9F
A12M-SCLPR/L08-D...	CSTB-3L050	T-9F
A**-SCLPR/L09-D...	CSTB-4L060	T-15F
E**-SCLPR/L06-D...	CSTB-2.5S	T-8F
E10*-SCLPR/L08-D...	CSTB-3L042	T-9F
E12*-SCLPR/L08-D...	CSTB-3L050	T-9F
E16*-SCLPR/L09-D...	CSTB-4L060	T-15F

Reference pages

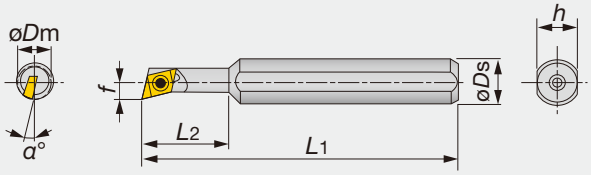
A/E-SCLPR/L: Inserts → **B111 -**

JS-SEXPR/L

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style **X**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	α°	rε**	Insert	Torque*
JS08H-SEXPR045	STEEL	5.5	8	2.7	100	16	7	12	0.4	EP**0401...	0.6
JS08H-SEXPR047	STEEL	7	8	3.6	100	20	7	12	0.4	EP**0401...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SEXPL** type), and the left hand insert (L) is used for the right hand toolholders (SEXPR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
JS08H-SEXPR04...	CSTB-2	T-6F

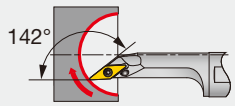
Reference pages

JS-SEXPR/L: Inserts → **B122**, CBN → **B171**, PCD → **B178**

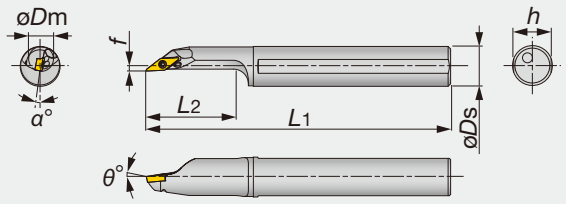
STREAMJETBAR

A-SVJBR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A20R-SVJBR/L11-D250	STEEL	25	20	2	200	40	18	-5	-5	0.4	VB**1103...	1.2
A25S-SVJBR/L11-D300	STEEL	30	25	3.5	250	50	23	-5	-5	0.4	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVJBL** type), and the left hand insert (L) is used for the right hand toolholders (SVJBR** type).

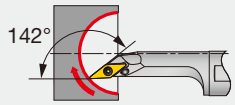
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJB*11-D...	CSTB-2.5	T-8F

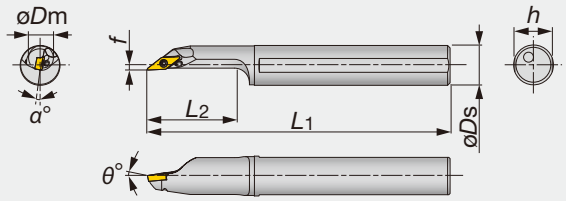
STREAMJETBAR

A-SVJCR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A12M-SVJCR/L08-D160	STEEL	16	12	2	150	28	11	-5	-5	0.4	VC**0802...	0.6
A16Q-SVJCR/L08-D200	STEEL	20	16	2	180	35	15	-5	-5	0.4	VC**0802...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVJCL** type), and the left hand insert (L) is used for the right hand toolholders (SVJCR** type).

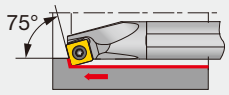
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJC*08-D...	CSTB-2L	T-6F

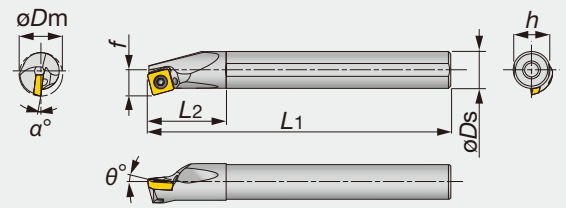
STREAMJETBAR

A-SSKPR

Screw-on boring bars, for positive square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A16Q-SSKPR09-D200	STEEL	20	16	11	180	32	15	5	-6	0.8	SP**0903...	3
A20R-SSKPR09-D240	STEEL	24	20	13	200	36	18	5	-2	0.8	SP**0903...	3
A25S-SSKPR12-D310	STEEL	31	25	17	250	45	23	5	-2	0.8	SP**1204...	6

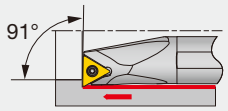
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SSKPL** type), and the left hand insert (L) is used for the right hand toolholders (SSKPR** type).

SPARE PARTS

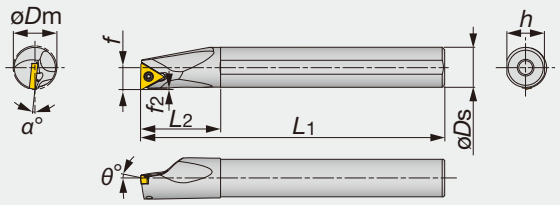
Designation	Clamping screw	Wrench
A**-SSKPR09-D2*0	CSTB-4L060	T-15F
A25S-SSKPR12-D310	CSTB-5S	T-20F

A/E-STFCR/L

Screw-on boring bars, for positive triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A10K-STFCR/L1103-D120	STEEL	12	10	6.5	125	20	9	0.6	0	-13	0.4	TC**1103...	1.2
A12M-STFCR/L1103-D140	STEEL	14	12	7	150	24	11	0.5	0	-10	0.4	TC**1103...	1.2
A16Q-STFCR/L1103-D180	STEEL	18	16	9	180	32	15	0.5	0	-7	0.4	TC**1103...	1.2
E10M-STFCR/L1103-D120	CARBIDE	12	10	6.5	150	25	9	0.7	0	-13	0.4	TC**1103...	1.2
E12Q-STFCR/L1103-D140	CARBIDE	14	12	7	180	27	11	0.5	0	-10	0.4	TC**1103...	1.2
E16R-STFCR/L1103-D180	CARBIDE	18	16	9	200	32	15	0.5	0	-7	0.4	TC**1103...	1.2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (STFCL** type), and the left hand insert (L) is used for the right hand toolholders (STFCR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-STFCR/L1103-D...	CSTB-2.5	T-8F
E**-STFCR/L1103-D...	CSTB-2.5	T-8F

Reference pages

A-SVJBR/L: Inserts → **B145 -**, CBN → **B169 -**

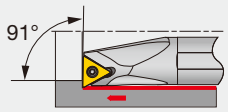
A-SVJCR/L: Inserts → **B147 -**

A-SSKPR: Inserts → **B128 -**, CBN → **B168**

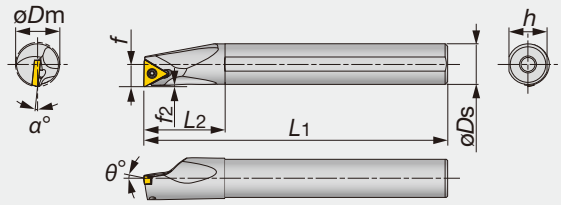
A/E-STFCR/L: Inserts → **B131 -**, PCD → **B177**

A/E-STFPR/L

Screw-on boring bars, for positive triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A08H-STFPR/L09-D100	STEEL	10	8	5.5	100	16	7.5	0.7	5	-8	0.4	TP**0902...	0.9
A10K-STFPR/L1102-D120	STEEL	12	10	6.5	125	20	9	0.7	5	-6	0.4	TP**1102...	1.2
A12M-STFPR/L1102-D140	STEEL	14	12	7.0	150	24	11	0.6	5	-4	0.4	TP**1102...	1.2
A16Q-STFPR/L13-D180	STEEL	18	16	9	180	32	15	0.7	5	-2	0.4	TP**1303...	1.4
A20R-STFPR13-D220	STEEL	22	20	11	200	36	18	0.8	5	-2	0.4	TP**1303...	1.4
A25S-STFPR16-D270	STEEL	27	25	13.5	250	45	23	0.6	5	-1	0.4	TP**16T3...	3
E08K-STFPR/L09-D100	CARBIDE	10	8	5.5	125	22	7.5	0.7	5	-8	0.4	TP**0902...	0.9
E10M-STFPR/L1102-D120	CARBIDE	12	10	6.5	150	25	9	0.7	5	-6	0.4	TP**1102...	1.2
E12Q-STFPR/L1102-D140	CARBIDE	14	12	7	180	27	11	0.6	5	-4	0.4	TP**1102...	1.2
E16R-STFPR13-D180	CARBIDE	18	16	9	200	32	15	0.7	5	-2	0.4	TP**1303...	1.4
E20S-STFPR13-D220	CARBIDE	22	20	11	250	36	18	0.8	5	-2	0.4	TP**1303...	1.4

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (STFPL ** type), and the left hand insert (L) is used for the right hand toolholders (STFPR ** type).
(1) Inserts of TPGH, TPGM and TPGA are not applicable.

SPARE PARTS

Designation	Clamping screw	Wrench
A08H-STFPR/L09-D100	CSTB-2.2S	T-7F
A10K-STFPR/L1102-D120	CSTB-2.5B	T-8F
A12M-STFPR/L1102-D140	CSTB-2.5	T-8F
A16Q-STFPR/L13-D180	CSTB-3S	T-9F
A20R-STFPR13-D220	CSTB-3	T-9F
A25S-STFPR16-D270	CSTB-4M	T-15F
E08K-STFPR/L09-D100	CSTB-2.2S	T-7F
E10M-STFPR/L1102-D120	CSTB-2.5B	T-8F
E12Q-STFPR/L1102-D140	CSTB-2.5	T-8F
E16R-STFPR13-D180	CSTB-3S	T-9F
E20S-STFPR13-D220	CSTB-3	T-9F

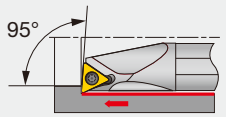
Reference pages

A/E-STFPR/L: Inserts → **B136 -**, CBN → **B168 -**, PCD → **B178**

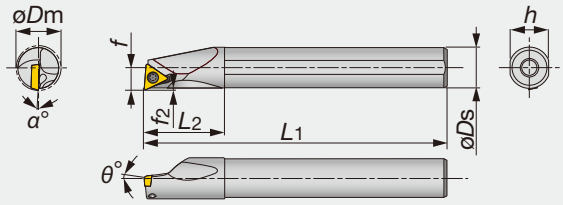
STREAMJETBAR

A/E-STUPR/L

Screw-on boring bars, for positive triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A07G-STUPR/L07-D080	STEEL	8	7	4	90	12	6.75	0.4	5	-10	0.4	TP**0701...	0.9
A08H-STUPR/L07-D080	STEEL	8	8	4	100	19.5	7.5	0.5	5	-10	0.4	TP**0701...	0.9
A08H-STUPR/L09-D100	STEEL	10	8	5.5	100	16	7.5	0.6	5	-8	0.4	TP**0902...(1)	0.9
A10F-STUPR1102-D120	STEEL	12	10	6.5	80	20	9	1.4	5	-6	0.4	TP**1102...(1)	1.2
A10K-STUPR/L1102-D120	STEEL	12	10	6.5	125	20	9	0.7	5	-6	0.4	TP**1102...(1)	1.2
A10K-STUPR/L1103-D120	STEEL	12	10	6.5	125	20	9	0.6	5	-10	0.4	TP**1103...(1)	1.4
A12H-STUPR1102-D140	STEEL	14	12	7	100	24	11	0.8	5	-4	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1102-D140	STEEL	14	12	7	150	24	11	0.8	5	-4	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1103-D140	STEEL	14	12	7	150	24	11	0.6	5	-6	0.4	TP**1103...(1)	1.4
A12H-STUPR1102-D160	STEEL	16	12	9	100	24	11	0.6	5	-3	0.4	TP**1102...(1)	1.2
A12M-STUPR/L1102-D160	STEEL	16	12	9	150	24	11	0.6	5	-3	0.4	TP**1102...(1)	1.2
A16K-STUPR13-D180	STEEL	18	16	9	125	32	15	0.8	5	-3	0.4	TP**1303...(1)	1.4
A16Q-STUPR/L1103-D180	STEEL	18	16	9	180	32	15	0.8	5	-4	0.4	TP**1103...(1)	1.4
A16Q-STUPR/L13-D180	STEEL	18	16	9	180	32	15	0.8	5	-3	0.4	TP**1303...(1)	1.4
A16K-STUPR13-D200	STEEL	20	16	11	125	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
A16Q-STUPR/L13-D200	STEEL	20	16	11	180	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
A20R-STUPR/L1103-D220	STEEL	22	20	11	200	36	18	0.7	5	-2	0.4	TP**1103...(1)	1.4
A20R-STUPR/L13-D220	STEEL	22	20	11	200	36	18	0.7	5	-2	0.4	TP**1303...(1)	1.4
A25S-STUPR/L16-D270	STEEL	27	25	13.5	250	45	23	0.5	5	-1	0.8	TP**16T3...(1)	3
A32T-STUPR/L16-D340	STEEL	34	32	17	300	50	30	0.7	5	0	0.8	TP**16T3...	3
E07H-STUPR/L07-D080	CARBIDE	8	7	4	100	14	6.75	0.3	5	-10	0.4	TP**0701...	0.9
E08G-STUPR07-D080	CARBIDE	8	8	4	90	44.5	7.5	0.5	5	-10	0.4	TP**0701...	0.9
E08K-STUPR/L07-D080	CARBIDE	8	8	4	125	44.5	7.5	0.5	5	-10	0.4	TP**0701...	0.9
E08G-STUPR09-D100	CARBIDE	10	8	5.5	90	22	7	0.6	5	-8	0.4	TP**0902...(1)	0.9
E08K-STUPR/L09-D100	CARBIDE	10	8	5.5	125	22	7	0.6	5	-8	0.4	TP**0902...(1)	0.9
E10F-STUPR1102-D120	CARBIDE	12	10	6.5	80	25	9	0.5	5	-6	0.4	TP**1102...(1)	1.2
E10H-STUPR1102-D120	CARBIDE	12	10	6.5	100	25	9	0.6	5	-6	0.4	TP**1102...(1)	1.2
E10M-STUPR/L1102-D120	CARBIDE	12	10	6.5	150	25	9	0.6	5	-6	0.4	TP**1102...(1)	1.2
E10M-STUPR/L1103-D120	CARBIDE	12	10	6.5	150	25	9	0.7	5	-10	0.4	TP**1103...(1)	1.4
E12G-STUPR1102-D140	CARBIDE	14	12	7	90	27	11	0.9	5	-4	0.4	TP**1102...(1)	1.2
E12J-STUPR1102-D140	CARBIDE	14	12	7	110	27	11	0.6	5	-4	0.4	TP**1102...(1)	1.2
E12Q-STUPR/L1102-D140	CARBIDE	14	12	7	180	27	11	0.6	5	-4	0.4	TP**1102...(1)	1.2
E12Q-STUPR/L1103-D140	CARBIDE	14	12	7	180	27	11	0.7	5	-6	0.4	TP**1103...(1)	1.4
E12G-STUPR1102-D160	CARBIDE	16	12	9	90	27	11	0.6	5	-3	0.4	TP**1102...(1)	1.2
E12J-STUPR1102-D160	CARBIDE	16	12	9	110	27	11	0.6	5	-3	0.4	TP**1102...(1)	1.2
E12Q-STUPR/L1102-D160	CARBIDE	16	12	9	180	27	11	0.6	5	-3	0.4	TP**1102...(1)	1.2
E16H-STUPR13-D180	CARBIDE	18	16	9	100	32	15	0.9	5	-3	0.4	TP**1303...(1)	1.4
E16R-STUPR/L1103-D180	CARBIDE	18	16	9	200	32	15	0.8	5	-3	0.4	TP**1103...(1)	1.4
E16L-STUPR13-D180	CARBIDE	18	16	9	130	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
E16R-STUPR/L13-D180	CARBIDE	18	16	9	200	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
E16H-STUPR13-D200	CARBIDE	20	16	11	100	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
E16L-STUPR13-D200	CARBIDE	20	16	11	130	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
E16R-STUPL13-D200	CARBIDE	20	16	11	200	32	15	0.6	5	-3	0.4	TP**1303...(1)	1.4
E20S-STUPR1103-D220	CARBIDE	22	20	11	250	36	18	0.7	5	-2	0.4	TP**1103...(1)	1.4
E20S-STUPR13-D220	CARBIDE	22	20	11	250	36	18	0.6	5	-2	0.4	TP**1303...(1)	1.4
E25T-STUPR16-D270	CARBIDE	27	25	13.5	300	45	23	0.5	5	-1	0.8	TP**16T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (STUPL ** type), and the left hand insert (L) is used for the right hand toolholders (STUPR ** type).

(1) Inserts of TPGH, TPGM and TPGA are not applicable.

Reference pages

A/E-STUPR/L: Inserts → **B136 -**, CBN → **B168 -**, PCD → **B178**

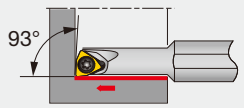
SPARE PARTS

Designation	Clamping screw	Wrench
A07/08-STUPR/L07/09-D...	CSTB-2.2L038	T-7F
A10*-STUPR/L1102-D120	CSTB-2.5S	T-8F
A12*-STUPR/L1102-D...	CSTB-2.5B	T-8F
A12M-STUPR/L1103-D140	CSTB-3L050	T-9F
A16*-STUPR/L13-D...	CSTB-3S	T-9F
A20R-STUPR/L13-D220	CSTB-3	T-9F
A**-STUPR/L16-D...	CSTB-4M	T-15F
E07/08-STUPR/L07/09-D...	CSTB-2.2L038	T-7F
E10*-STUPR/L1102-D120	CSTB-2.5S	T-8F
E12*-STUPR/L1102-D...	CSTB-2.5B	T-8F
E**-STUPR/L1103-D...	CSTB-3L050	T-9F
E16*-STUPR/L13-D...	CSTB-3S	T-9F
E20S-STUPR13-D220	CSTB-3	T-9F
E25T-STUPR16-D270	CSTB-4M	T-15F

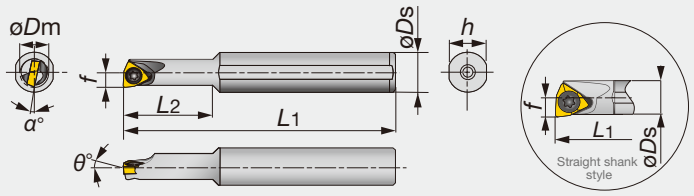
STREAMJETBAR

A/E-SWUBR/L

Screw-on boring bars, for positive trigon inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	θ°	α°	rε**	Insert	Torque*
A05F-SWUBR/L03-D060	STEEL	6	5	3	80	9	4.8	0	-13	0.4	WB**0301...	0.6
A06G-SWUBR/L03-D070	STEEL	7	6	3.5	90	11	5.75	0	-12	0.4	WB**0301...	0.6
A07G-SWUBR/L03-D080	STEEL	8	7	4	90	12	6.75	0	-11	0.4	WB**0301...	0.6
A08H-SWUBR03-D060	STEEL	6	8	3.1	100	18	7.5	0	-12	0.4	WB**0301...	0.6
A08H-SWUBR03-D070	STEEL	7	8	3.6	100	20	7.5	0	-12	0.4	WB**0301...	0.6
E05G-SWUBR/L03-D060	CARBIDE	6	5	3	90	10	4.8	0	-13	0.4	WB**0301...	0.6
E06H-SWUBR/L03-D070	CARBIDE	7	6	3.5	100	12	5.75	0	-12	0.4	WB**0301...	0.6
E07H-SWUBR/L03-D080	CARBIDE	8	7	4	100	14	6.75	0	-11	0.4	WB**0301...	0.6
E08K-SWUBR03-D060	CARBIDE	6	8	3.1	125	30	7.5	0	-12	0.4	WB**0301...	0.6
E08K-SWUBR03-D070	CARBIDE	7	8	3.6	125	40	7.5	0	-12	0.4	WB**0301...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SWUBL** type), and the left hand insert (L) is used for the right hand toolholders (SWUBR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWUBR/L...	CSTB-2	T-6F

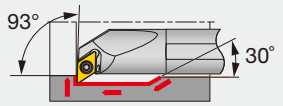
Reference pages

A/E-SWUBR/L: Inserts → **B151**

STREAMJETBAR

A/E-SDUCR/L

Screw-on boring bars, for positive 55° rhombic inserts



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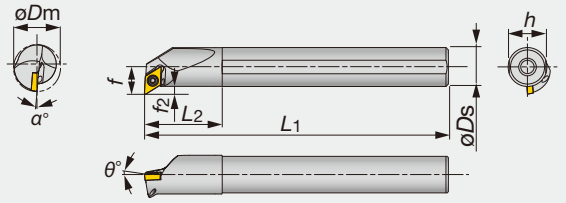


Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A10K-SDUCR/L07-D130	STEEL	13	10	7	125	20	9	2	0	-10	0.4	DC**0702...	1.2
A12M-SDUCR/L07-D160	STEEL	16	12	9.3	150	24	11	3.3	0	-6	0.4	DC**0702...	1.2
A16Q-SDUCR/L07-D200	STEEL	20	16	11.3	180	32	15	3.3	0	-5	0.4	DC**0702...	1.2
A20R-SDUCR/L11-D270	STEEL	27	20	16.1	200	36	18	6.1	0	-5	0.8	DC**11T3...	3
A25S-SDUCR/L11-D320	STEEL	32	25	18.6	250	45	23	6.1	0	-4	0.8	DC**11T3...	3
E10H-SDUCR07-D130	CARBIDE	13	10	7	100	25	9	1.9	5	-3.5	0.4	DC**0702...	1.2
E10M-SDUCR/L07-D130	CARBIDE	13	10	7	150	25	9	2	0	-10	0.4	DC**0702...	1.2
E12J-SDUCR07-D160	CARBIDE	16	12	9.3	110	27	11	3.2	0	-6	0.4	DC**0702...	1.2
E12Q-SDUCR/L07-D160	CARBIDE	16	12	9.3	180	27	11	3.3	0	-6	0.4	DC**0702...	1.2
E16L-SDUCR07-D200	CARBIDE	20	16	11.3	130	32	15	3.2	0	-5	0.4	DC**0702...	1.2
E16R-SDUCR/L07-D200	CARBIDE	20	16	11.3	200	32	15	3.3	0	-5	0.4	DC**0702...	1.2
E20S-SDUCR11-D270	CARBIDE	27	20	16.1	250	36	18	6.1	0	-5	0.8	DC**11T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SDUCL** type), and the left hand insert (L) is used for the right hand toolholders (SDUCR** type).

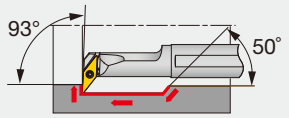
SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
A16Q-SDUCR/L07-D200	CSTB-2.5	T-8F
A2**-SDUCR/L11-D**0	CSTB-4S	T-15F
E1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
E16*-SDUCR/L07-D200	CSTB-2.5	T-8F
E20S-SDUCR11-D270	CSTB-4S	T-15F

STREAMJETBAR

A/E-SVUBR/L

Screw-on boring bars, for positive 35° rhombic inserts



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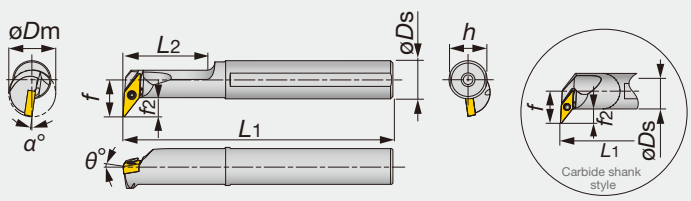


Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16Q-SVUBR/L11-D200	STEEL	20	16	15.5	180	35	15	8	0	-8	0.4	VB**1103...	1.2
A20R-SVUBR/L11-D250	STEEL	25	20	17.5	200	40	19	8	0	-7	0.4	VB**1103...	1.2
A25S-SVUBR/L16-D320	STEEL	32	25	20.5	250	50	23	8.5	0	-6	0.8	VB**1604...	3
E16R-SVUBR/L11-D245	CARBIDE	24.5	16	16	200	-	15	8	0	-8	0.4	VB**1103...	1.2
E20S-SVUBR/L11-D285	CARBIDE	28.5	20	18	250	-	19	8	0	-7	0.4	VB**1103...	1.2
E25T-SVUBR/L16-D340	CARBIDE	34	25	21	300	-	23	8.5	0	-6	0.8	VB**1604...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVUBL** type), and the left hand insert (L) is used for the right hand toolholders (SVUBR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVUBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVUBR/L16-D320	CSTB-3.5	T-15F
E**-SVUBR/L11-D2*5	CSTB-2.5	T-8F
E25T-SVUBR/L16-D340	CSTB-3.5	T-15F

Reference pages

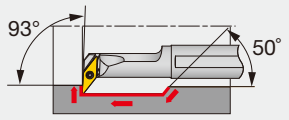
A/E-SDUCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

A/E-SVUBR/L: Inserts → **B145 -**, CBN → **B169 -**

STREAMJETBAR

A/E-SVUCR/L

Screw-on boring bars, for positive 35° rhombic inserts



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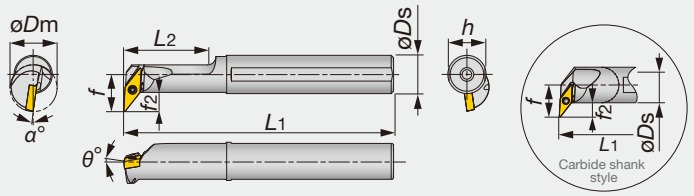


Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SVUCR/L08-D160	STEEL	16	12	11	150	30	11	5.5	0	-8	0.4	VC**0802...	0.6
A25S-SVUCR/L16-D320	STEEL	32	25	19	250	45	23	6.5	0	-5	0.8	VC**1604...	3
E12Q-SVUCR/L08-D180	CARBIDE	18	12	11.5	180	-	11	5.5	0	-8	0.4	VC**0802...	0.6
E25T-SVUCR/L16-D320	CARBIDE	32	25	19	300	-	23	6.5	0	-5	0.8	VC**1604...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVUCL** type), and the left hand insert (L) is used for the right hand toolholders (SVUCR** type).

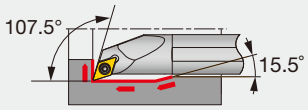
SPARE PARTS

Designation	Clamping screw	Wrench
A12M-SVUCR/L08-D160	CSTB-2L	T-6F
A25S-SVUCR/L16-D320	CSTB-3.5	T-15F
E12Q-SVUCR/L08-D180	CSTB-2L	T-6F
E25T-SVUCR/L16-D320	CSTB-3.5	T-15F

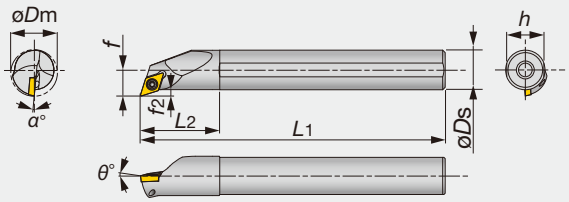
STREAMJETBAR

A/E-SDQCR/L

Screw-on boring bars, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A10K-SDQCR/L07-D130	STEEL	13	10	7.6	125	20	9	2.6	0	-8	0.4	DC**0702...	1.2
A12M-SDQCR/L07-D160	STEEL	16	12	8.6	150	24	11	2.6	0	-6	0.4	DC**0702...	1.2
A16Q-SDQCR/L07-D200	STEEL	20	16	10.6	180	32	15	2.6	0	-5	0.4	DC**0702...	1.2
A20R-SDQCR/L11-D250	STEEL	25	20	13.7	200	36	18	3.7	0	-7	0.8	DC**11T3...	3
A25S-SDQCR/L11-D300	STEEL	30	25	16.2	250	45	23	3.7	0	-4	0.8	DC**11T3...	3
E10H-SDQCR07-D130	CARBIDE	13	10	7.6	100	25	9	2.5	0	-8	0.4	DC**0702...	1.2
E10M-SDQCR/L07-D130	CARBIDE	13	10	7.6	150	25	9	2.6	0	-8	0.4	DC**0702...	1.2
E12J-SDQCR07-D160	CARBIDE	16	12	8.6	110	27	11	2.5	0	-6	0.4	DC**0702...	1.2
E12Q-SDQCR/L07-D160	CARBIDE	16	12	8.6	180	27	11	2.6	0	-6	0.4	DC**0702...	1.2
E16L-SDQCR07-D200	CARBIDE	20	16	10.6	130	32	15	2.5	0	-5	0.4	DC**0702...	1.2
E16R-SDQCR/L07-D200	CARBIDE	20	16	10.6	200	32	15	2.6	0	-5	0.4	DC**0702...	1.2
E20S-SDQCR/L11-D250	CARBIDE	25	20	13.7	250	36	18	3.7	0	-7	0.8	DC**11T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SDQCL** type), and the left hand insert (L) is used for the right hand toolholders (SDQCR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
A2**-SDQCR/L11-D**0	CSTB-4S	T-15F
E1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
E20S-SDQCR/L11-D250	CSTB-4S	T-15F

Reference pages

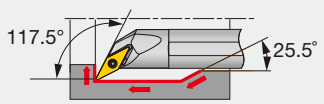
A/E-SVUCR/L: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

A/E-SDQCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

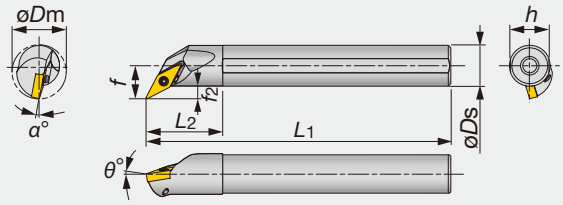
STREAMJETBAR

A/E-SVQBR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SVQBR/L11-D170	STEEL	17	12	10.5	150	24	11	4.5	-5	-10	0.4	VB**1103...	1.2
A16Q-SVQBR/L11-D215	STEEL	21.5	16	13	180	30	15	5	-5	-8	0.4	VB**1103...	1.2
A20R-SVQBR/L11-D255	STEEL	25.5	20	15	200	36	18	5	-5	-6	0.4	VB**1103...	1.2
A25S-SVQBR/L16-D305	STEEL	30.5	25	17.5	250	45	23	5	-5	-8	0.8	VB**1604...	3
E12Q-SVQBR/L11-D170	CARBIDE	17	12	10.5	180	27	11	4.5	-5	-10	0.4	VB**1103...	1.2
E16R-SVQBR/L11-D215	CARBIDE	21.5	16	13	200	32	15	5	-5	-8	0.4	VB**1103...	1.2
E20S-SVQBR/L11-D255	CARBIDE	25.5	20	15	250	36	18	5	-5	-6	0.4	VB**1103...	1.2
E25T-SVQBR/L16-D305	CARBIDE	30.5	25	17.5	300	45	23	5	-5	-8	0.8	VB**1604...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVQBL type), and the left hand insert (L) is used for the right hand toolholders (SVQBR type).

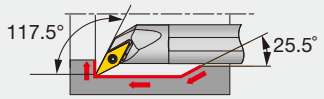
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVQBR/L11-D...	CSTB-2.5	T-8F
A25S-SVQBR/L16-D305	CSTB-3.5	T-15F
E**-SVQBR/L11-D...	CSTB-2.5	T-8F
E25T-SVQBR/L16-D305	CSTB-3.5	T-15F

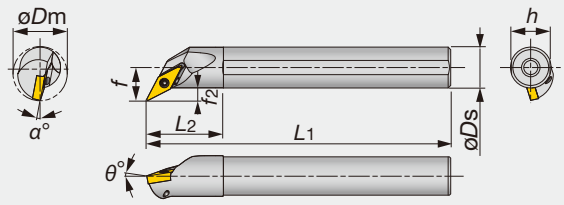
STREAMJETBAR

A/E-SVQCR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A10K-SVQCR/L08-D135	STEEL	13.5	10	8	125	20	9	3	-5	-8	0.4	VC**0802...	0.6
A16Q-SVQCR/L11-D215	STEEL	21.5	16	13	180	30	15	4.9	-5	-8	0.4	VC**1103...	1.2
E10M-SVQCR/L08-D135	CARBIDE	13.5	10	8	150	25	9	3	-5	-8	0.4	VC**0802...	0.6
E16R-SVQCR/L11-D215	CARBIDE	21.5	16	13	200	32	15	4.9	-5	-8	0.4	VC**1103...	1.2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVQCL ** type), and the left hand insert (L) is used for the right hand toolholders (SVQCR ** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A10K-SVQCR/L08-D135	CSTB-2L	T-6F
A16Q-SVQCR/L11-D215	CSTB-2.5	T-8F
E10M-SVQCR/L08-D135	CSTB-2L	T-6F
E16R-SVQCR/L11-D215	CSTB-2.5	T-8F

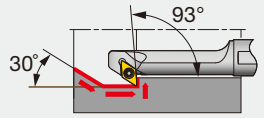
Reference pages

A/E-SVQBR/L: Inserts → **B145 -**, CBN → **B169 -**

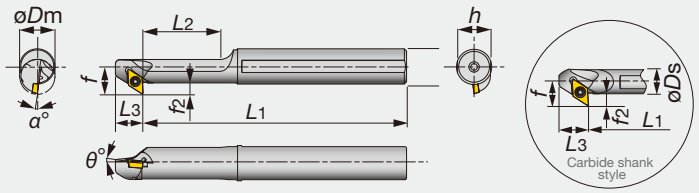
A/E-SVQCR/L: Inserts → **B147 -**

A/E-SDZCR/L

Screw-on boring bars, for positive 55° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SDZCR/L07-D140	STEEL	14	12	10.5	150	30	12.5	11	4.5	0	-9	0.4	DC**0702...	1.2
A16Q-SDZCR/L07-D160	STEEL	16	16	12.5	180	35	12.5	15	4.5	0	-8	0.4	DC**0702...	1.2
A20R-SDZCR/L11-D200	STEEL	20	20	15.5	200	40	15.0	18	5.5	0	-8	0.8	DC**11T3...	3
A25S-SDZCR/L11-D250	STEEL	25	25	18	250	50	15	23	5.5	0	-6	0.8	DC**11T3...	3
E12Q-SDZCR/L07-D180	CARBIDE	18	12	10.5	180	-	12.5	11	4.5	0	-8	0.4	DC**0702...	1.2
E16R-SDZCR/L07-D220	CARBIDE	22	16	12.5	200	-	12.5	15	4.5	0	-6	0.4	DC**0702...	1.2

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the right hand toolholders (SDZCR ** type), and the left hand insert (L) is used for the left hand toolholders (SDZCL ** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDZCR/L07-D1*0	CSTB-2.5	T-8F
A2**-SDZCR/L11-D2*0	CSTB-4S	T-15F
E1**-SDZCR/L07-D**0	CSTB-2.5	T-8F

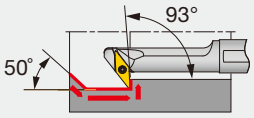
Reference pages

A/E-SDZCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

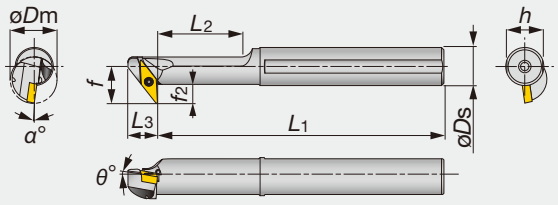
STREAMJETBAR

A-SVZBR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
A16Q-SVZBR/L11-D200	STEEL	20	16	15.5	180	35	12.5	15	8	0	-8	0.4	VB**1103...	1.2
A20R-SVZBR/L11-D250	STEEL	25	20	17.5	200	40	12.5	18	8	0	-7	0.4	VB**1103...	1.2
A25S-SVZBR/L16-D320	STEEL	32	25	24	250	50	17.5	23	12	0	-6	0.8	VB**1604...	3
A32T-SVZBR/L16-D400	STEEL	40	32	27.5	300	72	17.5	30	12	0	-5	0.8	VB**1604...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the right hand toolholders (SVZBR type), and the left hand insert (L) is used for the left hand toolholders (SVZBL type).

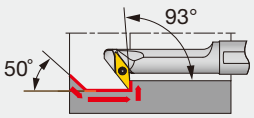
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVZBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVZBR/L16-D320	CSTB-3.5	T-15F
A32T-SVZBR/L16-D400	CSTB-3.5L	T-15F

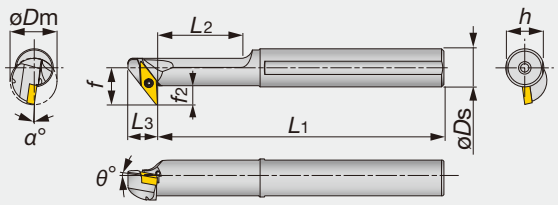
STREAMJETBAR

A-SVZCR/L

Screw-on boring bars, for positive 35° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SVZCR/L08-D160	STEEL	16	12	11	150	30	10	11	5.5	0	-8	0.4	VC**0802...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the right hand toolholders (SVZCR ** type), and the left hand insert (L) is used for the left hand toolholders (SVZCL ** type).

SPARE PARTS

Designation	Clamping screw	Wrench
A12M-SVZCR/L08-D160	CSTB-2L	T-6F

Reference pages

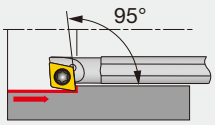
A-SVZBR/L: Inserts → **B145 -**, CBN → **B169 -**

A-SVZCR/L: Inserts → **B147 -**

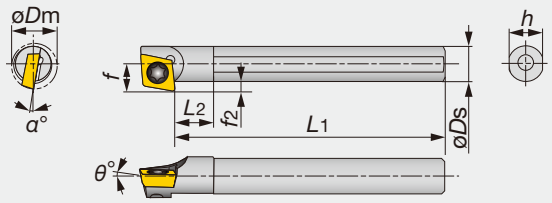
STREAMJETBAR

A/E-SEZPR/L

Screw-on boring bars, for positive 75° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A04F-SEZPR/L03-D055	STEEL	5.5	4	3.2	80	4	3.8	1.2	0	-8	0.2	EP**03X1...	0.6
A05F-SEZPR/L03-D065	STEEL	6.5	5	3.7	80	5	4.8	1.2	0	-6	0.2	EP**03X1...	0.6
E04G-SEZPR/L03-D055	CARBIDE	5.5	4	3.2	90	5	3.8	1.2	0	-8	0.2	EP**03X1...	0.6
E05G-SEZPR/L03-D065	CARBIDE	6.5	5	3.7	90	6	4.8	1.2	0	-6	0.2	EP**03X1...	0.6

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the right hand toolholders (SEZPR ** type), and the left hand insert (L) is used for the left hand toolholders (SEZPL ** type).

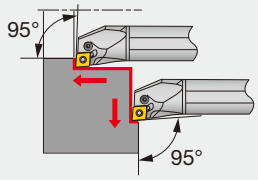
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEZPR/L03-D...	CSTA-1.6	T-6F
E**-SEZPR/L03-D...	CSTA-1.6	T-6F

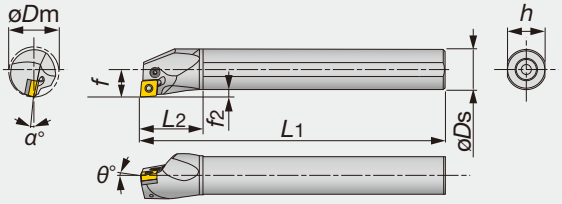
STREAMJETBAR

A-PCLNR/L

Lever-lock boring bars, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16M-PCLNR/L09-D200	STEEL	20	16	11	150	32	15	3	-6	-14	0.8	CN**0903...	1.7
A20Q-PCLNR/L09-D250	STEEL	25	20	13	180	36	18	3	-6	-12	0.8	CN**0903...	1.7
A25R-PCLNR/L09-D320	STEEL	32	25	17	200	45	23	4.5	-6	-11	0.8	CN**0903...	1.7
A25R-PCLNR/L12-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	CN**1204...	2.7
A32S-PCLNR/L12-D400	STEEL	40	32	22	250	50	30	6	-6	-11	0.8	CN**1204...	4.8
A40T-PCLNR/L12-D500	STEEL	50	40	27	300	60	37	7	-6	-10	0.8	CN**1204...	4.8
A50U-PCLNR/L12-D630	STEEL	63	50	35	350	65	47	10	-6	-8	0.8	CN**1204...	4.8

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (PCLNL ** type), and the left hand insert (L) is used for the right hand toolholders (PCLNR ** type).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A**-PCLNR/L09-D**0	-	LCS22A	-	P-2F	-	-	LCL32N	(EA-25)	(SSHM5-6)
A25R-PCLNR/L12-D320	-	LCS43	-	-	P-2.5	-	LCL43N	(EA-32)	(SSHM5-6)
A32S-PCLNR12-D400	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	(EA-32)	(SSHM5-6)
A32S-PCLNL12-D400	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A40T-PCLNR12-D500	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A40T-PCLNL12-D500	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A50U-PCLNR12-D630	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A50U-PCLNL12-D630	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)

Reference pages

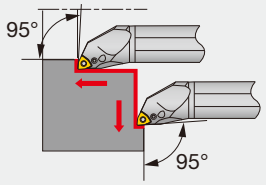
A/E-SEZPR/L: Inserts → **B122 -**, CBN → **B171**

A-PCLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

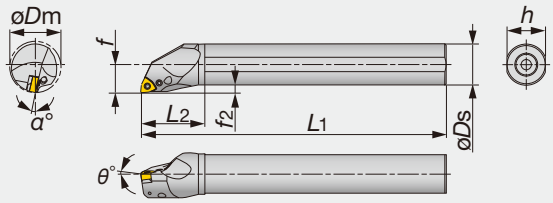
STREAMJETBAR

A-PWLNR/L

Lever-lock boring bars, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16M-PWLNR/L06-D200	STEEL	20	16	11	150	32	15	3	-8	-17	0.8	WN**0604...	1.7
A20Q-PWLNR/L06-D250	STEEL	25	20	13	180	36	18	3	-6	-14	0.8	WN**0604...	1.7
A25R-PWLNR/L06-D320	STEEL	32	25	17	200	45	23	4.5	-6	-12	0.8	WN**0604...	2.7
A32S-PWLNR/L06-D400	STEEL	40	32	22	250	50	30	6	-6	-11	0.8	WN**0604...	2.7
A25R-PWLNR/L08-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	WN**0804...	2.7
A32S-PWLNR/L08-D400	STEEL	40	32	22	250	50	30	6	-6	-11	0.8	WN**0804...	4.8
A40T-PWLNR/L08-D500	STEEL	50	40	27	300	60	37	7	-6	-10	0.8	WN**0804...	4.8

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

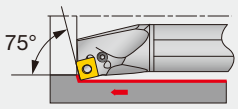
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A16M-PWLNR/L06-D200	-	LCS33	-	P-2F	-	-	LCL33N	-	(SSHM3-4)
A20Q-PWLNR/L06-D250	-	LCS33	-	P-2F	-	-	LCL33N	(EA-20)	(SSHM3-4)
A25R-PWLNR/L06-D320	LSW312BR/L	-	LCS3B	-	P-2.5	LSP3	LCL3	(EA-25)	(SSHM4-5)
A32S-PWLNR/L06-D400	LSW312BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	(EA-32)	(SSHM4-5)
A25R-PWLNR/L08-D320	-	LCS43	-	-	P-2.5	-	LCL43N	(EA-25)	(SSHM4-5)
A32S-PWLNR/L08-D400	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	(EA-32)	(SSHM4-5)
A40T-PWLNR/L08-D500	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM4-5)

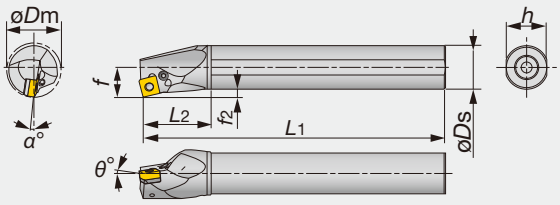
STREAMJETBAR

A-PSKNR/L

Lever-lock boring bars, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A32S-PSKNR/L12-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	SN**1204...	4.8
A40T-PSKNR/L12-D500	STEEL	50	40	27	300	60	37	7	-6	-10	0.8	SN**1204...	4.8
A50U-PSKNR/L12-D630	STEEL	63	50	35	350	65	47	10	-6	-8	0.8	SN**1204...	4.8

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (PSKNL ** type), and the left hand insert (L) is used for the right hand toolholders (PSKNR ** type).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A32S-PSKNR/L12-D400	LSS42BR/L	LCS4	P-3	LSP4	LCL4	(EA-32)	(SSHM4-5)
A40T-PSKNR/L12-D500	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	(SSHM6-6)
A50U-PSKNR/L12-D630	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	(SSHM6-6)

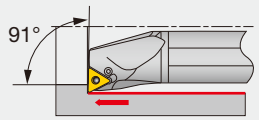
Reference pages

A-PWLNR/L: Inserts → **B095 -**, CBN → **B165**

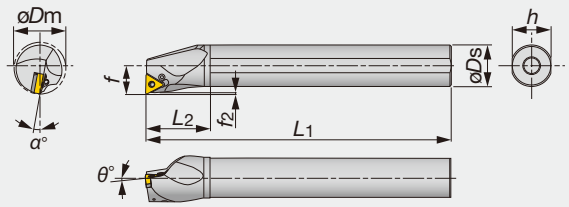
A-PSKNR/L: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

A-PTFNR/L

Lever-lock boring bars, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-PTFNR/L16-D320	STEEL	32	25	17	200	45	23	1.2	-6	-12	0.8	TN**1604...	2.7
A32S-PTFNR/L16-D400	STEEL	40	32	22	250	50	30	1.1	-6	-10	0.8	TN**1604...	2.7
A40T-PTFNR/L16-D500	STEEL	50	40	27	300	60	37	1.1	-6	-10	0.8	TN**1604...	2.7
A50U-PTFNR/L16-D630	STEEL	63	50	35	350	65	47	1.1	-6	-8	0.8	TN**1604...	2.7

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (PTFNL ** type), and the left hand insert (L) is used for the right hand toolholders (PTFNR ** type).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A25R-PTFNR/L16-D320	ELST317BR/L	LCS3	P-2.5	LSP3	LCL33	(EA-25)	(SSHM4-5)
A32S-PTFNR/L16-D400	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	(EA-32)	(SSHM4-5)
A40T-PTFNR/L16-D500	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	-	(SSHM6-6)
A50U-PTFNR/L16-D630	LST317BR/L	LCS3	P-2.5	LSP3	LCL3	-	(SSHM6-6)

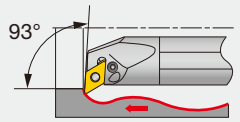
Reference pages

A-PTFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

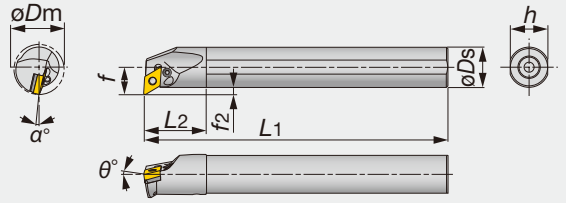
STREAMJETBAR

A-PDUNR/L

Lever-lock boring bars, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A20Q-PDUNR/L11-D250	STEEL	25	20	13	180	36	18	3	-6	-14	0.8	DN**1104...	1.7
A25R-PDUNR/L11-D320	STEEL	32	25	17	200	45	23	4.5	-6	-12	0.8	DN**1104...	2.7
A32S-PDUNR/L15-D400	STEEL	40	32	22	250	50	30	6	-6	-13	0.8	DN**1504...	4.8
A40T-PDUNR/L15-D500	STEEL	50	40	27	300	60	37	7	-6	-10	0.8	DN**1504...	4.8
A50U-PDUNR/L15-D630	STEEL	63	50	35	350	65	47	10	-6	-8	0.8	DN**1504...	4.8
A32S-PDUNR/L1506-D400	STEEL	40	32	22	250	50	30	6	-6	-13	0.8	DN**1506...	4.8
A40T-PDUNR/L1506-D500	STEEL	50	40	27	300	60	37	7	-6	-11	0.8	DN**1506...	4.8
A50U-PDUNR/L1506-D630	STEEL	63	50	35	350	65	47	10	-6	-10	0.8	DN**1506...	4.8

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius

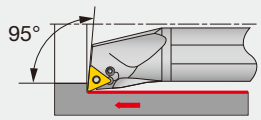
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A20Q-PDUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	(EA-20)	(SSHM2.5-3)
A25R-PDUNR/L11-D320	ELSD317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33L	(EA-25)	(SSHM3-4)
A32S-PDUNR/L15-D400	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	(EA-32)	(SSHM5-6)
A40T-PDUNR/L15-D500	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A50U-PDUNR/L15-D630	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	(SSHM6-6)
A32S-PDUNR/L1506-D400	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	(EA-20)	(SSHM5-6)
A40T-PDUNR/L1506-D500	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	(SSHM6-6)
A50U-PDUNR/L1506-D630	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	(SSHM6-6)

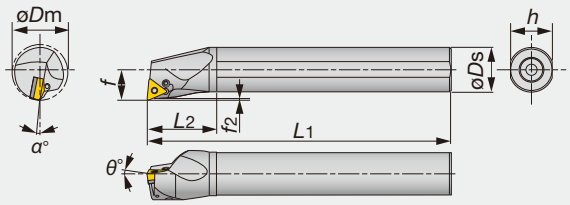
STREAMJETBAR

A-PTUNR/L

Lever-lock boring bars, for negative triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16M-PTUNR/L11-D200	STEEL	20	16	11	150	32	15	1	-6	-14	0.4	TN**1103...	1.7
A20Q-PTUNR/L11-D250	STEEL	25	20	13	180	36	18	1	-6	-12	0.4	TN**1103...	1.7
A25R-PTUNR/L16-D320	STEEL	32	25	17	200	45	23	1.4	-6	-12	0.8	TN**1604...	2.7
A32S-PTUNR/L16-D400	STEEL	40	32	22	250	50	30	1.3	-6	-10	0.8	TN**1604...	2.7

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The insert hole conforms to the ISO standard.
Tool holder length may be different to the ISO standard.
When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (PTUNL ** type), and the left hand insert (L) is used for the right hand toolholders (PTUNR ** type).

SPARE PARTS

Designation	Shim	Clamping screw1	Clamping screw2	Wrench 1	Wrench 2	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A16M-PTUNR/L11-D200	-	LCS22A	-	P-2F	-	-	LCL22N	-	(SSHM3-4)
A20Q-PTUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL22N	(EA-20)	(SSHM3-4)
A25R-PTUNR/L16-D320	ELST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33	(EA-25)	(SSHM4-5)
A32S-PTUNR/L16-D400	LST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	(EA-32)	(SSHM4-5)

Reference pages

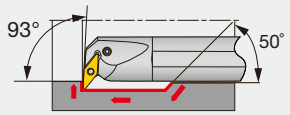
A-PDUNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

A-PTUNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

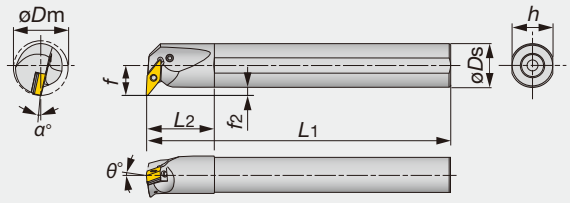
STREAMJETBAR

A-PVUNR/L

Lever-lock boring bars, for negative 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-PVUNR/L16-D370	STEEL	37	25	22	200	45	23	9.5	-5	-14	0.8	V/YN**1604...	2.7
A32S-PVUNR/L16-D400	STEEL	40	32	22	250	50	30	6	-5	-12	0.8	V/YN**1604...	2.7
A40T-PVUNR/L16-D500	STEEL	50	40	27	300	60	37	7	-5	-10	0.8	V/YN**1604...	2.7

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

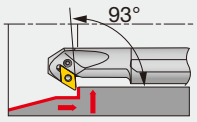
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A25R-PVUNR/L16-D370	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	(EA-25)	(SSHM4-5)
A32S-PVUNR/L16-D400	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	(EA-32)	(SSHM4-5)
A40T-PVUNR/L16-D500	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	-	(SSHM5-6)

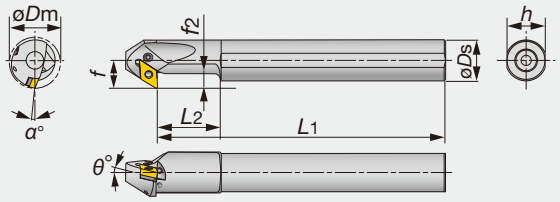
STREAMJETBAR

A-PDZNR/L

Lever-lock boring bars, for negative 55° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A32S-PDZNR/L15-D400	STEEL	40	32	22	250	50	30	11.5	-6	-13	0.8	DN**1504...	4.8
A40T-PDZNR/L15-D500	STEEL	50	40	27	300	60	37	14.5	-6	-10	0.8	DN**1504...	4.8
A50U-PDZNR/L15-D630	STEEL	63	50	35	350	65	47	14.5	-6	-8	0.8	DN**1504...	4.8

*Torque: Recommended torque (N·m) for clamping **r_ε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the right hand toolholders (PDZNR** type), and the left hand insert (L) is used for the left hand toolholders (PDZNL** type).

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever	Oil supply attachment (Optional parts)	Screw for oil hole (Optional parts)
A32S-PDZNR15-D400	LSZ42BR	LCS4	P-3	LSP4	LCL4	(EA-32)	(SSHM4-5)
A32S-PDZNL15-D400	LSZ42BL	LCS4	P-3	LSP4	LCL4	(EA-32)	(SSHM4-5)
A40T-PDZNR15-D500	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	(SSHM5-6)
A40T-PDZNL15-D500	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	(SSHM5-6)
A50U-PDZNR15-D630	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	(SSHM6-6)
A50U-PDZNL15-D630	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	(SSHM6-6)

Reference pages

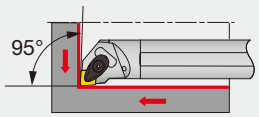
A-PVUNR/L: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

A-PDZNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

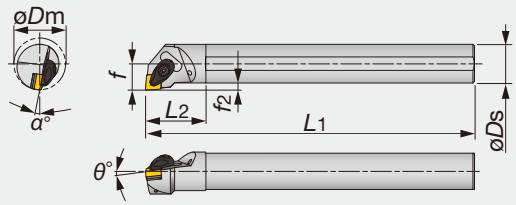
TURNING

A-ACLNR/L

Double-clamp boring bar, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-ACLNR/L12-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	CN**1204...	3
A32S-ACLNR/L12-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	CN**1204...	3
A40T-ACLNR/L12-D500	STEEL	50	40	27	300	55	37	7	-6	-8	0.8	CN**1204...	3
A50U-ACLNR12-D630	STEEL	63	50	35	350	65	47	10	-6	-7	0.8	CN**1204...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

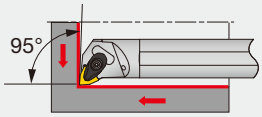
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F

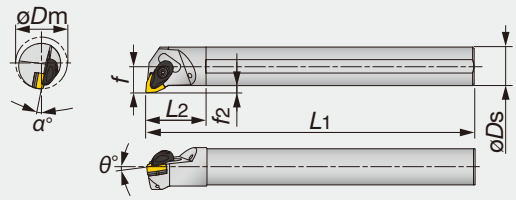
TURNING

A-AWLNR/L

Double-clamp boring bar, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-AWLNR/L06-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	WN**0604...	3
A32S-AWLNR/L06-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	WN**0604...	3
A25R-AWLNR/L08-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	WN**0804...	3
A32S-AWLNR/L08-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	WN**0804...	3
A40T-AWLNR/L08-D500	STEEL	50	40	27	300	55	37	7	-6	-8	0.8	WN**0804...	3
A50U-AWLNR/L08-D630	STEEL	63	50	35	350	65	47	10	-6	-7	0.8	WN**0804...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L06-D...	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L08-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

Reference pages

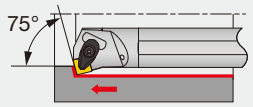
A-ACLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

A-AWLNR/L: Inserts → **B095 -**, CBN → **B165**

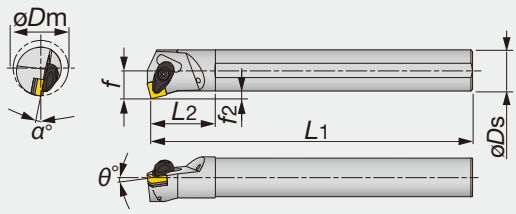
TURNING

A-ASKNR/L

Double-clamp boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-ASKNR/L12-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	SN**1204...	3
A32S-ASKNR/L12-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	SN**1204...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

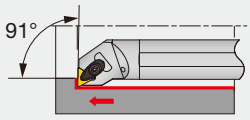
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ASKN*12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

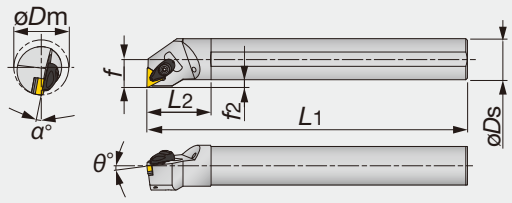
TURNING

A-ATFNR/L

Double-clamp boring bar, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A25R-ATFNR/L16-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	0.8	TN**1604...	3
A32S-ATFNR/L16-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	TN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ATFNR/L16-D...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

Reference pages

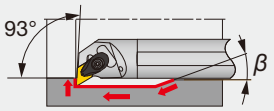
A-ASKNR/L: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

A-ATFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

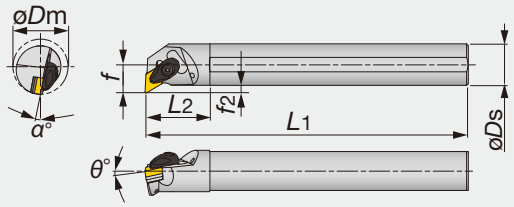
TURNINGA

A-ADUNR/L

Double-clamp boring bar, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	β	rε**	Insert	Torque*
A25R-ADUNR/L15-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	30	0.8	DN**1504...	3
A32S-ADUNR/L15-D400	STEEL	40	32	22	250	50	30	6	-6	-11	20	0.8	DN**1504...	3
A40T-ADUNR15-D500	STEEL	50	40	27	300	55	37	7	-6	-8	15	0.8	DN**1504...	3
A50U-ADUNR15-D630	STEEL	63	50	35	350	65	47	10	-6	-7	15	0.8	DN**1504...	3
A25R-ADUNR/L1506-D320	STEEL	32	25	17	200	45	23	4.5	-6	-13	15	0.8	DN**1506...	3
A32S-ADUNR/L1506-D400	STEEL	40	32	22	250	50	30	6	-6	-11	20	0.8	DN**1506...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

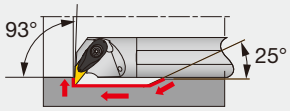
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L15-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
A**-ADUNR/L1506-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

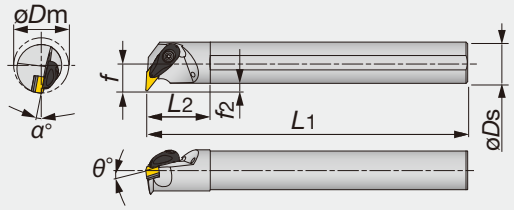
TURNINGA

A-AVUNR/L

Double-clamp boring bar, for negative 35° or 25° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A32S-AVUNR/L16-D400	STEEL	40	32	22	250	50	30	6	-6	-10	0.8	V/YN**1604...	3
A40T-AVUNR/L16-D500	STEEL	50	40	27	300	55	37	7	-6	-8	0.8	V/YN**1604...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AVUNR/L16-D...	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

Reference pages

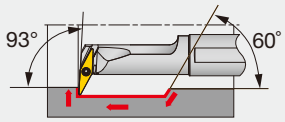
A-ADUNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

A-AVUNR/L: Inserts → **B091 -**, **B102**, CBN → **B165 -**, PCD → **B176**

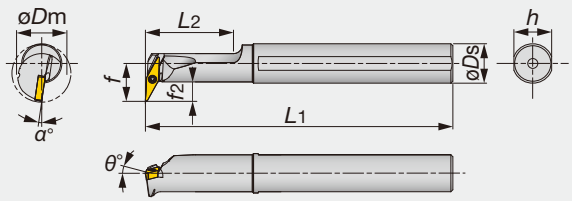
Y-PRO SERIES

A/E-SYUBR/L

Screw-on boring bars, for positive 25° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A16Q-SYUBR/L11-D200	STEEL	20	16	15.5	180	35	15	8	0	-8	0.4	YW**11T2...	0.6
E12Q-SYUBR/L11-D200	CARBIDE	20	12	13.5	180	27	11	7.5	0	-8	0.4	YW**11T2...	0.6
E16R-SYUBR/L11-D245	CARBIDE	24.5	16	16	200	32	15	8	0	-8	0.4	YW**11T2...	0.6

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

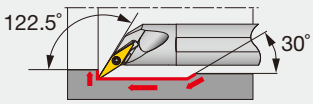
SPARE PARTS

Designation	Clamping screw	Wrench
A16Q-SYUBR/L11-D200	CSTB-2L	T-6F
E**-SYUBR/L11-D...	CSTB-2L	T-6F

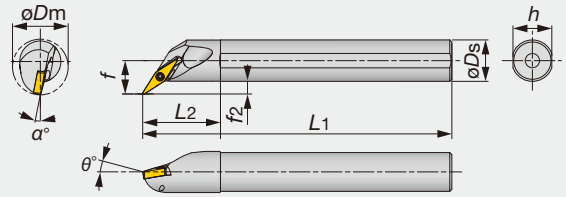
Y-PRO SERIES

A/E-SYQBR/L

Screw-on boring bars, for positive 25° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	θ°	α°	rε**	Insert	Torque*
A12M-SYQBR/L11-D170	STEEL	17	12	10.5	150	24	11	4.5	-5	-10	0.4	YW**11T2...	0.6
A16Q-SYQBR/L11-D215	STEEL	21.5	16	13	180	30	15	5	-5	-8	0.4	YW**11T2...	0.6
E12Q-SYQBR/L11-D170	CARBIDE	17	12	10.5	180	27	11	4.5	-5	-10	0.4	YW**11T2...	0.6
E16R-SYQBR/L11-D215	CARBIDE	21.5	16	13	200	32	15	5	-5	-8	0.4	YW**11T2...	0.6

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

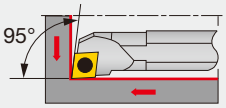
Designation	Clamping screw	Wrench
A**-SYQBR/L11-D...	CSTB-2L	T-6F
E**-SYQBR/L11-D...	CSTB-2L	T-6F

Reference pages

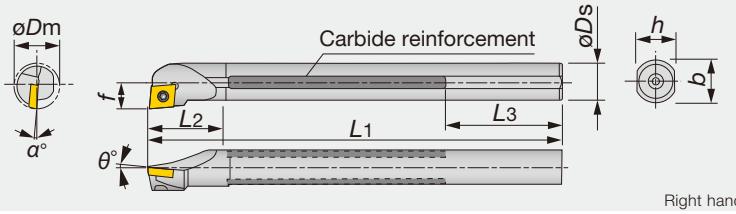
A/E-SYUBR/L, A/E-SYQBR/L: Inserts → **B153**

T-SCLCR/L

Tsuppari-Ichiban, Screw-on boring bar, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	b	α°	θ°	rε**	Insert	Torque*
T12M-SCLCR/L06	TSUPPARI	16	–	12	9	150	22	59	11	–	-10	0	0.4	CC**0602...	1.2
T16Q-SCLCR/L09	TSUPPARI	20	–	16	11	180	27	59	15	–	-10	0	0.8	CC**09T3...	3
T20R-SCLCR/L09C	TSUPPARI	25	Rc1/4	20	13	200	35	49	18	–	-8	0	0.8	CC**09T3...	3
T25S-SCLCR/L09C	TSUPPARI	32	Rc1/4	25	17	250	40	64	23	–	-6	0	0.8	CC**09T3...	3

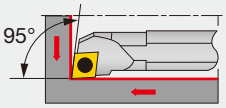
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard.
When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SCLCL** type), and the left hand insert (L) is used for the right hand toolholders (SCLCR** type).

SPARE PARTS

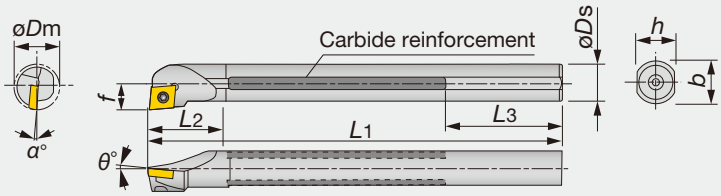
Designation	Clamping screw	Wrench
T12M-SCLCR/L06	CSTB-2.5	T-8F
T16Q-SCLCR/L09	CSTB-4S	T-15F
T20R-SCLCR/L09C	CSTB-4S	T-15F
T25S-SCLCR/L09C	CSTB-4S	T-15F

T-SCLPR/L

Tsuppari-Ichiban, Screw-on boring bar, for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	α°	θ°	rε**	Insert	Torque*
T12M-SCLPR08-D14	TSUPPARI	14	-	12	7	150	22	59	11	-4	5	0.4	CP**0802...	1.4
T12M-SCLPR/L08	TSUPPARI	16	-	12	9	150	25	59	11	-3	5	0.4	CP**0802...	1.4
T16Q-SCLPR09-D18	TSUPPARI	18	-	16	9	180	27	59	15	-3.5	5	0.8	CP**0903...	3
T16Q-SCLPR/L09	TSUPPARI	20	-	16	11	180	30	59	15	-4	5	0.8	CP**0903...	3
T20R-SCLPR09C-D22	TSUPPARI	22	Rc1/4	20	11	200	35	49	18	-2	5	0.8	CP**0903...	3
T20R-SCLPR/L09	TSUPPARI	25	-	20	13	200	35	49	18	-2	5	0.8	CP**0903...	3
T25S-SCLPR09C-D27	TSUPPARI	27	Rc1/4	25	13.5	250	40	64	23	-1	5	0.8	CP**0903...	3
T25S-SCLPR/L09	TSUPPARI	32	-	25	17	250	40	64	23	0	5	0.8	CP**0903...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SCLPL** type), and the left hand insert (L) is used for the right hand toolholders (SCLPR** type).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLPR/L08...	CSTB-3L050	T-9F
T16Q-SCLPR09-D18	CSTB-4L060	T-15F
T16Q-SCLPR/L09	CSTB-4S	T-15F
T20R-SCLPR09C-D22	CSTB-4L060	T-15F
T20R-SCLPR/L09	CSTB-4S	T-15F
T25S-SCLPR09C-D27	CSTB-4L060	T-15F
T25S-SCLPR/L09	CSTB-4S	T-15F

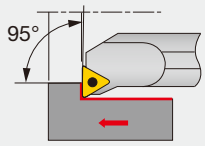
Reference pages

T-SCLCR/L: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

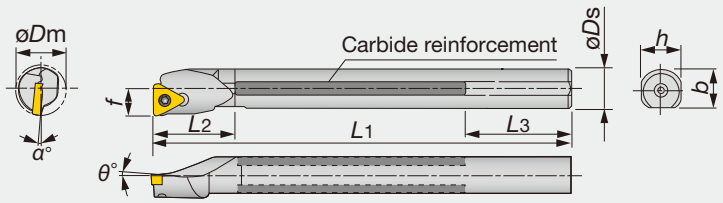
T-SCLPR/L: Inserts → **B111 -**

T-STUPR/L

Tsuppari-Ichiban boring bar, for positive triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	θ°	α°	rε**	Insert	Torque*
T12M-STUPR11-D14	TSUPPARI	14	-	12	7	150	24	59	11	5	-4	0.4	TP**1102...	1.2
T12M-STUPR/L11	TSUPPARI	16	-	12	9	150	25	58	11	5	-4	0.4	TP**1102...	1.2
T16Q-STUPR13-D18	TSUPPARI	18	-	16	9	180	30	59	15	5	-3.5	0.4	TP**1303...	1.4
T16Q-STUPR/L13	TSUPPARI	20	-	16	11	180	30	59	15	5	-3	0.4	TP**1303...	1.4
T20R-STUPR13C-D22	TSUPPARI	22	Rc1/4	20	11	200	35	49	18	5	-2	0.4	TP**1303...	1.4
T20R-STUPR/L13	TSUPPARI	24	-	20	13	200	40	49	18	5	-2	0.4	TP**1303...	1.4
T25S-STUPR16C-D27	TSUPPARI	27	Rc1/4	25	13.5	250	40	64	23	5	-1	0.8	TP**16T3...	3
T25S-STUPR/L16	TSUPPARI	31	-	25	17	250	45	64	23	5	0	0.8	TP**16T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (STUPL** type), and the left hand insert (L) is used for the right hand toolholders (STUPR** type).

SPARE PARTS

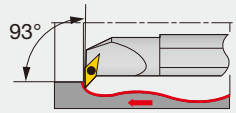
Designation	Clamping screw	Wrench
T12M-STUPR11-D14	CSTB-2.5B	T-8F
T12M-STUPR/L11	CSTB-2.5	T-8F
T16Q-STUPR13-D18	CSTB-3S	T-9F
T16Q-STUPR/L13	CSTB-3	T-9F
T20R-STUPR13C-D22	CSTB-3S	T-9F
T20R-STUPR/L13	CSTB-3	T-9F
T25S-STUPR/L16...	CSTB-4S	T-15F

Reference pages

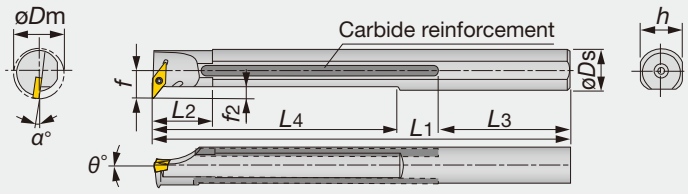
T-STUPR/L: Inserts → **B136 -**, CBN → **B168 -**, PCD → **B178**

T-SVUBR

Tsuppari-Ichiban, Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	L4	h	f2	θ°	α°	rε**	Insert	Torque*
T20R-SVUBR11C	TSUPPARI	25	Rc1/4	20	14	200	30	59	121	18	4	0	-8	0.4	VB**1103...	1.2

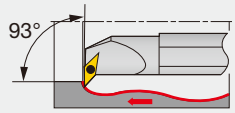
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (SVUBL** type), and the left hand insert (L) is used for the right hand toolholders (SVUBR** type).

SPARE PARTS

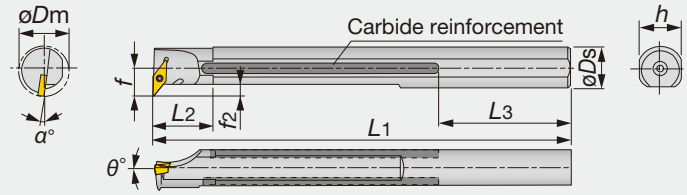
Designation	Clamping screw	Wrench
T20R-SVUBR11C	CSTB-2.5	T-8F

T-SVUCR

Tsuppari-Ichiban, Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
T25S-SVUCR16C	TSUPPARI	32	Rc1/4	25	19	250	40	64	23	6.5	0	-5	0.8	VC**1604...	3

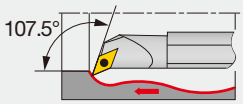
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard.
When using a right or left hand insert, the right hand insert (R) is used for left hand toolholders (L) and the left hand insert (L) is used for right hand toolholders (R).

SPARE PARTS

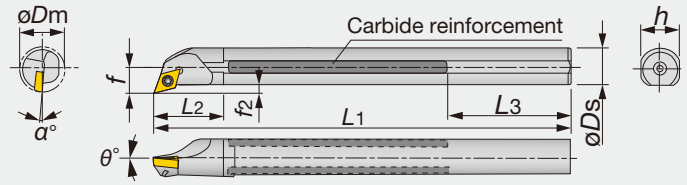
Designation	Clamping screw	Wrench
T25S-SVUCR16C	CSTB-3.5L	T-15F

T-SDQCR/L

Tsuppari-Ichiban, Screw-on boring bar, for positive 55° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
T16Q-SDQCR/L07	TSUPPARI	20	-	16	11	180	27	59	15	3	0	-6	0.4	DC**0702...	1.2
T20R-SDQCR/L11C	TSUPPARI	25	Rc1/4	20	13	200	35	49	18	3	0	-6	0.8	DC**11T3...	3
T25S-SDQCR/L11C	TSUPPARI	32	Rc1/4	25	17	250	40	64	23	4.5	0	-4	0.8	DC**11T3...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard.
When using a right or left hand insert, the right hand insert (R) is used for left hand toolholders (L) and the left hand insert (L) is used for right hand toolholders (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T16Q-SDQCR/L07	CSTB-2.5	T-8F
T20R-SDQCR/L11C	CSTB-4M	T-15F
T25S-SDQCR/L11C	CSTB-4	T-15F

Reference pages

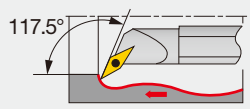
T-SVUBR: Inserts → **B145 -**, CBN → **B169 -**

T-SVUCR: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

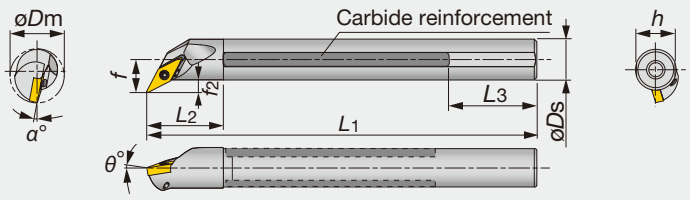
T-SDQCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

T-SVQBR

Tsuppari-Ichiban, Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
T20R-SVQBR11C	TSUPPARI	25	Rc1/4	20	14	200	30	59	18	4	-5	-7	0.4	VB**1103...	1.2

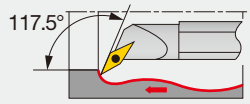
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard. When using a right or left hand insert, the right hand instert (R) is used for the left hand toolholders (L), and the left hand insert (L) is used for the right hand toolholders (R).

SPARE PARTS

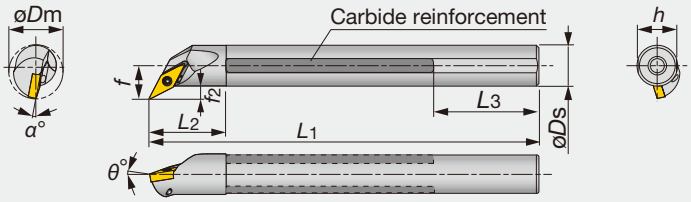
Designation	Clamping screw	Wrench
T20R-SVQBR11C	CSTB-2.5	T-8F

T-SVQCR

Tsuppari-Ichiban, Screw-on boring bar, for positive 35° rhombic inserts



Cutting edge style **Q**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	f2	θ°	α°	rε**	Insert	Torque*
T25S-SVQCR16C	TSUPPARI	32	Rc1/4	25	17	250	40	64	23	8	0	-5	0.8	VC**1604...	3

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard. When using a right or left hand insert, the right hand instert (R) is used for the left hand toolholders (L), and the left hand insert (L) is used for the right hand toolholders (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T25S-SVQCR16C	CSTB-3.5L	T-15F

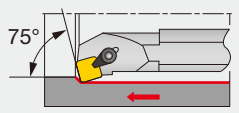
Reference pages

T-SVQBR: Inserts → **B145 -**, CBN → **B169 -**

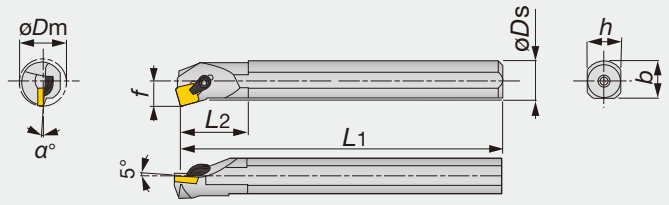
T-SVQCR: Inserts → **B147 -**, CBN → **B169 -**, PCD → **B177 -**

S-CSKPR/L

Clamp-on boring bar, for positive square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S16Q-CSKPR09	STEEL	20	16	11	180	30	15	15	-4	0.8	SP**0903...
S20R-CSKPR/L09	STEEL	25	20	13	200	40	18	18.5	-2	0.8	SP**0903...
S25S-CSKPR12	STEEL	32	25	17	250	45	23	22.5	0	0.8	SP**1203...

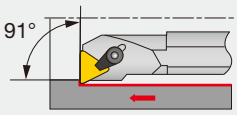
**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for left hand toolholders (L) and the left hand insert (L) is used for right hand toolholders (R).

SPARE PARTS

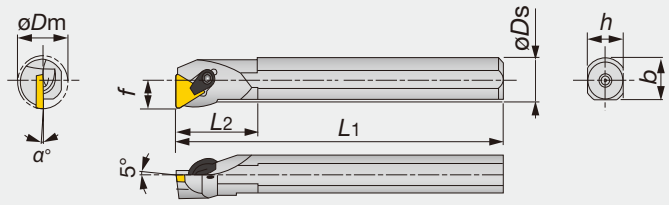
Designation	Clamp set	Wrench
S16Q-CSKPR09	CSG-5S	P-2.5
S20R-CSKPR/L09	CSG-5	P-2.5
S25S-CSKPR12	CSG-6	P-3

S/C-CTFPR/L

Clamp-on style boring bar, for positive triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S12M-CTFPR/L11	STEEL	16	12	9	150	25	11	11.5	-6	0.4	TP**1103...
S16Q-CTFPR/L11	STEEL	20	16	11	180	30	15	15	-4	0.4	TP**1103...
S20R-CTFPR/L16	STEEL	25	20	13	200	40	18	18.5	-2	0.8	TP**1603...
S25S-CTFPR/L16	STEEL	32	25	17	250	45	23	22.5	0	0.8	TP**1603...
S32T-CTFPR/L16	STEEL	40	32	22	300	50	30	29.5	0	0.8	TP**1603...
C12Q-CTFPR/L11	CARBIDE	16	12	9	180	-	11	-	-6	0.4	TP**1103...
C16R-CTFPR/L11	CARBIDE	20	16	11	200	-	15	-	-4	0.4	TP**1103...

**rε: Standard corner radius
Note: The hole of inserts conforms to ISO standard.
When using a right or left hand insert, the right hand insert (R) is used for left hand toolholders (L) and the left hand insert (L) is used for right hand toolholders (R).

SPARE PARTS

Designation	Clamp set	Wrench
S12M-CTFPR/L11	CSW-00	P-2.5
S16Q-CTFPR/L11	CSG-5S	P-2.5
S20R-CTFPR/L16	CSG-6S	P-3
S**-CTFPR/L16	CSG-6	P-3
C12Q-CTFPR/L11	CSW-00	P-2.5
C16R-CTFPR/L11	CSG-5S	P-2.5

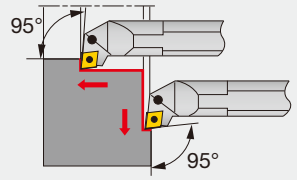
Reference pages

S-CSKPR/L: Inserts → **B130**, CBN → **B168**, PCD → **B177**

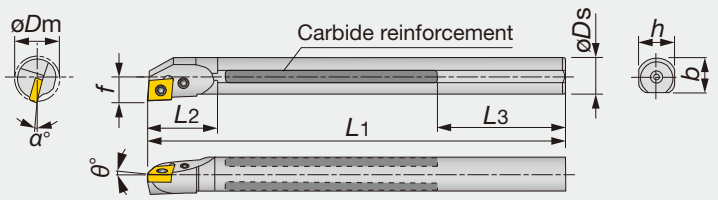
S/C-CTFPR/L: Inserts → **B143 -**, CBN → **B168 -**, PCD → **B178**

T-PCLNR

Lever-lock boring bar, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	θ°	α°	rε**	Insert	Torque*
T16Q-PCLNR09	TSUPPARI	20	-	16	11	180	27	59	15	-6	-14	0.8	CN**0903...	1.7
T20R-PCLNR09C	TSUPPARI	25	Rc1/4	20	13	200	35	49	18	-6	-12	0.8	CN**0903...	1.7
T25S-PCLNR09C	TSUPPARI	32	Rc1/4	25	17	250	40	64	23	-6	-11	0.8	CN**0903...	1.7
T32U-PCLNR12C	TSUPPARI	40	Rc1/2	32	22	350	50	103	30	-6	-11	0.8	CN**1204...	4.8
T40V-PCLNR12C	TSUPPARI	50	Rc1/2	40	27	400	55	88	37	-6	-10	0.8	CN**1204...	4.8
T50W-PCLNR12C	TSUPPARI	63	Rc1/2	50	35	450	65	63	47	-6	-8	0.8	CN**1204...	4.8

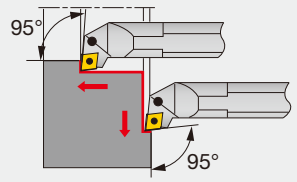
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

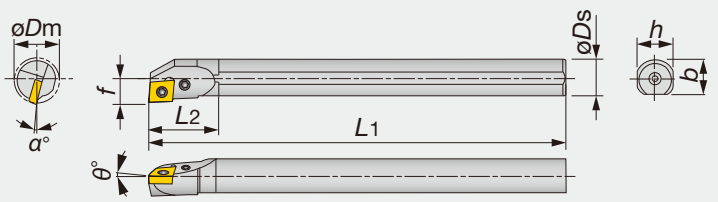
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever
T**-PCLNR09...	-	LCS22A	-	P-2F	-	-	LCL32N
T**-PCLNR12C	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4

S-PCLNR/L

Lever-lock boring bar, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	θ°	α°	rε**	Insert	Torque*
S16M-PCLNR/L09	STEEL	20	16	11	150	30	15	15.5	-6	-14	0.8	CN**0903...	1.7
S20Q-PCLNR/L09	STEEL	25	20	13	180	35	18	19	-6	-12	0.8	CN**0903...	1.7
S25R-PCLNR/L09	STEEL	32	25	17	200	40	23	24	-6	-11	0.8	CN**0903...	1.7
S32S-PCLNR/L12	STEEL	40	32	22	250	50	30	29.5	-6	-11	0.8	CN**1204...	4.8
S40T-PCLNR/L12	STEEL	50	40	27	300	55	37	37.5	-6	-10	0.8	CN**1204...	4.8
S50U-PCLNR/L12	STEEL	63	50	35	350	65	47	47.5	-6	-8	0.8	CN**1204...	4.8

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

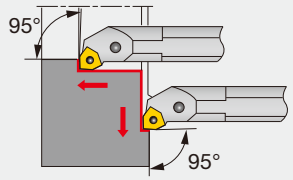
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever
S**-PCLNR/L09	-	LCS22A	-	P-2F	-	-	LCL32N
S32S-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S40T-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S50U-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4

Reference pages

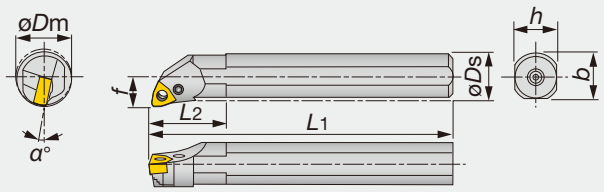
T-PCLNR, S-PCLNR/L: Inserts → **B050 -**, CBN → **B163**, PCD → **B176**

S-PWLNR/L

Lever-lock boring bar, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S16M-PWLNR/L06	STEEL	20	16	11	150	30	15	15.5	-17	0.8	WN**0604...
S20Q-PWLNR/L06	STEEL	25	20	13	180	35	18	19	-14	0.8	WN**0604...
S25R-PWLNR/L06	STEEL	32	25	17	200	40	23	24	-12	0.8	WN**0604...

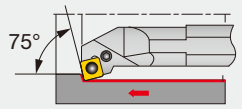
**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

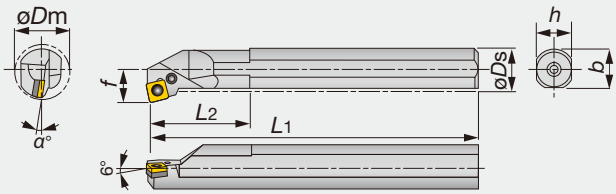
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever
S**-PWLNR/L06	-	LCS33	-	P-2F	-	-	LCL33N
S25R-PWLNR06	LSW312BR	-	LCS3B	-	P-2.5	LSP3	LCL3
S25R-PWLNL06	LSW312BL	-	LCS3B	-	P-2.5	LSP3	LCL3

S-PSKNR

Lever-lock boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S32S-PSKNR12	STEEL	40	32	22	250	50	30	29.5	-10	0.8	SN**1204...
S40T-PSKNR12	STEEL	50	40	27	300	55	37	37.5	-10	0.8	SN**1204...
S50U-PSKNR12	STEEL	63	50	35	350	65	47	47.5	-8	0.8	SN**1204...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever
S**-PSKNR12	LSS42BR	LCS4	P-3	LSP4	LCL4

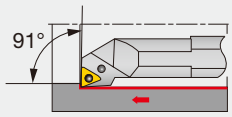
Reference pages

S-PWLNR/L: Inserts → **B095 -**, CBN → **B165**

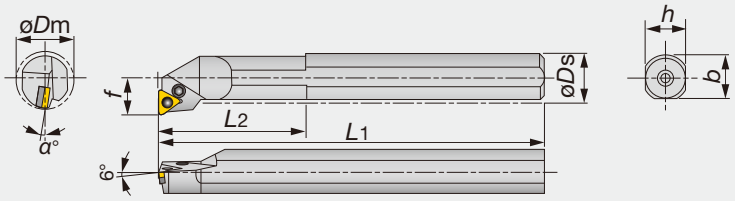
S-PSKNR: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

S-PTFNR/L

Lever lock type boring bar, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert	Torque*
S32S-PTFNR/L16	STEEL	40	32	22	250	50	30	29.5	-10	0.8	TN**1604...	2.7
S40T-PTFNR/L16	STEEL	50	40	27	300	55	37	37.5	-10	0.8	TN**1604...	2.7
S50U-PTFNR16	STEEL	63	50	35	350	65	47	47.5	-8	0.8	TN**1604...	2.7

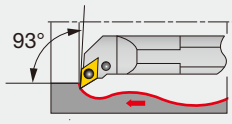
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

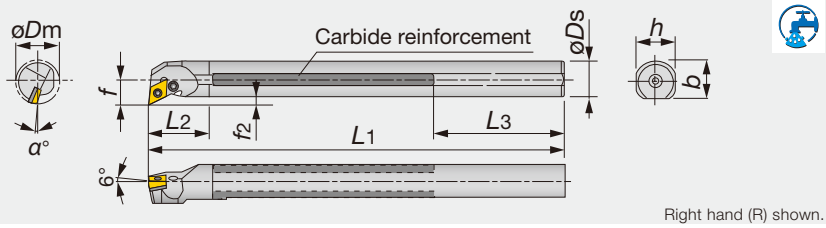
Designation	Shim	Clamping screw	Wrench	Spring	Lever
S32S-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S32S-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S50U-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3

T-PDUNR

Lever-lock boring bar, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	f2	α°	rε**	Insert
T32U-PDUNR15C	TSUPPARI	40	Rc1/2	32	22	350	50	103	30	6	-13	0.8	DN**1504...
T40V-PDUNR15C	TSUPPARI	50	Rc1/2	40	27	400	55	88	37	7	-10	0.8	DN**1504...
T50W-PDUNR15C	TSUPPARI	63	Rc1/2	50	35	450	65	63	47	10	-8	0.8	DN**1504...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever
T**-PDUNR15C	LSD42BR	LCS4	P-3	LSP4	LCL4

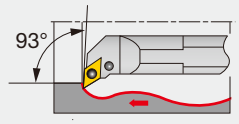
Reference pages

S-PTFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

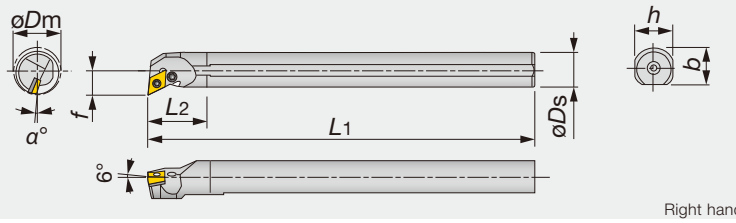
T-PDUNR: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

S-PDUNR/L

Lever-lock boring bar, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S20Q-PDUNR/L11	STEEL	25	20	13	180	35	18	19	-14	0.8	DN**1104...
S25R-PDUNR/L11	STEEL	32	25	17	200	40	23	24	-12	0.8	DN**1104...
S32S-PDUNR/L15	STEEL	40	32	22	250	50	30	29.5	-13	0.8	DN**1504...
S40T-PDUNR/L15	STEEL	50	40	27	300	55	37	37.5	-10	0.8	DN**1504...
S50U-PDUNR/L15	STEEL	63	50	35	350	65	47	47.5	-8	0.8	DN**1504...

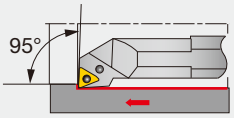
**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

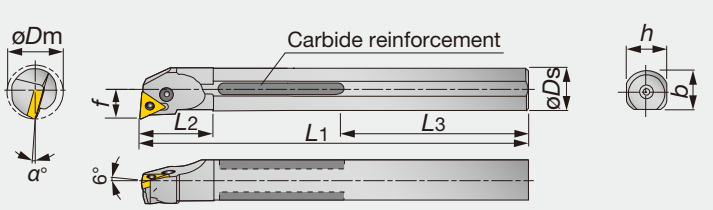
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever
S20Q-PDUNR/L11	-	LCS22A	-	P-2F	-	-	LCL33NL
S25R-PDUNR11	ELSD317BR	-	LCS3	-	P-2.5	LSP3	LCL33L
S25R-PDUNL11	ELSD317BL	-	LCS3	-	P-2.5	LSP3	LCL33L
S32S-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S32S-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4

T-PTUNR

Lever-lock boring bar, for negative triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	Oil hole	øDs	f	L1	L2	L3	h	α°	rε**	Insert	Torque*
T16Q-PTUNR11	TSUPPARI	20	-	16	11	180	27	59	15	-14	0.4	TN**1103...	1.7
T20R-PTUNR11C	TSUPPARI	25	Rc1/4	20	13	200	35	49	18	-12	0.4	TN**1103...	1.7
T25S-PTUNR16C	TSUPPARI	32	Rc1/4	25	17	250	40	64	23	-12	0.8	TN**1604...	2.7
T32U-PTUNR16C	TSUPPARI	40	Rc1/2	32	22	350	50	103	30	-10	0.8	TN**1604...	2.7
T40V-PTUNR16C	TSUPPARI	50	Rc1/2	40	27	400	55	88	37	-10	0.8	TN**1604...	2.7
T50W-PTUNR16C	TSUPPARI	63	Rc1/2	50	35	450	65	63	47	-8	0.8	TN**1604...	2.7

*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: • The hole of inserts conforms to ISO standard.
• Toolholder lengths do not always conform to ISO.
• When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever
T**-PTUNR11...	-	LCS22A	-	P-2F	-	-	LCL22N
T25S-PTUNR16C	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33
T**-PTUNR16C	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3

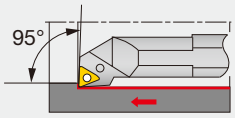
Reference pages

S-PDUNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

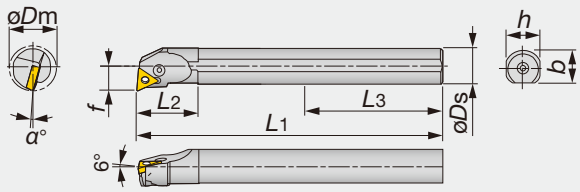
T-PTUNR: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

A/S-PTUNR/L

Lever lock type boring bar, for negative triangle inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert	Torque*
S16M-PTUNR/L11	STEEL	20	16	11	150	30	15	15.5	-14	0.4	TN**1103...	1.7
S20Q-PTUNR/L11	STEEL	25	20	13	180	35	18	19	-12	0.4	TN**1103...	1.7
S25R-PTUNR/L16	STEEL	32	25	17	200	40	23	24	-12	0.8	TN**1604...	2.7
A32S-PTUNR/L16	STEEL	40	32	22	250	50	30	29.5	-12	0.8	TN**1604...	2.7

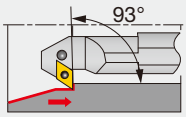
*Torque: Recommended torque (N·m) for clamping **rε: Standard corner radius
Note: • The hole of inserts conforms to ISO standard.
• Toolholder lengths do not always conform to ISO.
• When using a right or left hand insert, the right hand insert is used for left hand toolholders and the left hand insert is used for right hand toolholders.

SPARE PARTS

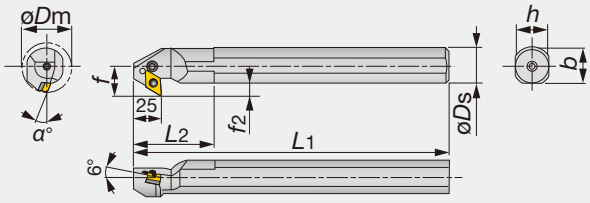
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring	Lever	Oil supply attachment (Optional parts)
S**-PTUNR/L11	-	LCS22A	-	P-2F	-	-	LCL22N	-
S25R-PTUNR16	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33	-
S25R-PTUNL16	ELST317BL	-	LCS3	-	P-2.5	LSP3	LCL33	-
A32S-PTUNR16	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3	(EA-32)
A32S-PTUNL16	LST317BL	-	LCS3	-	P-2.5	LSP3	LCL3	(EA-32)

S-PDZNR/L

Lever-lock boring bar, for negative 55° rhombic inserts



Cutting edge style **Z**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	f2	b	α°	rε**	Insert
S32S-PDZNR/L15	STEEL	40	32	22	275	55	30	6	29.5	-13	0.8	DN**1504...
S40T-PDZNR15	STEEL	50	40	27	325	60	37	7	37.5	-10	0.8	DN**1504...
S50U-PDZNR15	STEEL	60	50	35	375	65	47	10	47.5	-8	0.8	DN**1504...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert is used for right hand toolholders and the left hand insert is used for left hand toolholders.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring	Lever
S32S-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4
S32S-PDZNL15	LSZ42BL	LCS4	P-3	LSP4	LCL4
S*0*-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4

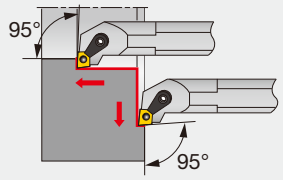
Reference pages

A/S-PTUNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

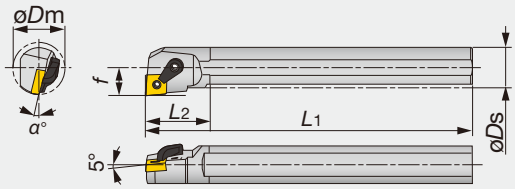
S-PDZNR/L: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

S-MCLNR/L

Multi-clamp boring bar, for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S25R-MCLNR/L12	STEEL	32	25	17	200	40	23	22.5	-12	0.8	CN**1204...

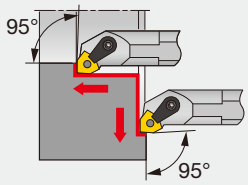
**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (MCLNL** type), and the left hand insert (L) is used for the right hand toolholders (MCLNR** type).

SPARE PARTS

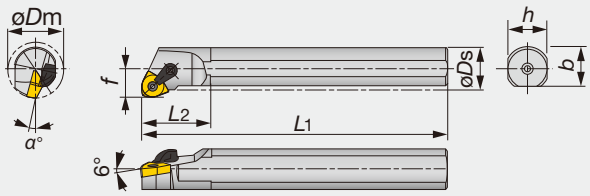
Designation	Clamp	Pin	Clamping screw	Wrench 1	Wrench 2
S25R-MCLNR/L12	MCPM-21	MLP44	MCS620-3	P-3	P-2.5F

S-MWLNR/L

Multi-clamp boring bar, for negative trigon inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S25R-MWLNR/L08	STEEL	32	25	17	200	40	23	22.5	-12	0.8	WN**0804...
S32S-MWLNR/L08	STEEL	44	32	22	250	50	30	29.5	-10	0.8	WN**0804...
S40T-MWLNR/L08	STEEL	54	40	27	300	60	37	37.5	-10	0.8	WN**0804...
S50U-MWLNR/L08	STEEL	70	50	35	350	75	47	47.5	-10	0.8	WN**0804...

**rε: Standard corner radius

SPARE PARTS

Designation	Clamp	Pin	Clamping screw	Shim	Wrench 1	Wrench 2
S25R-MWLNR/L08	MCPM-6	MLP44	MCS520-2.5	-	P-2.5	P-2.5F
S32S-MWLNR/L08	MCPM-6	MLP46	MCS520-2.5	MSW-432BR/L	P-2.5	P-2.5F
S40T-MWLNR/L08	MCPM-6	MLP46	MCS520-2.5	MSW-432BR/L	P-2.5	P-2.5F
S50U-MWLNR/L08	MCPM-6	MLP46	MCS520-2.5	MSW-432BR/L	P-2.5	P-2.5F

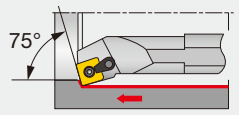
Reference pages

S-MCLNR/L: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

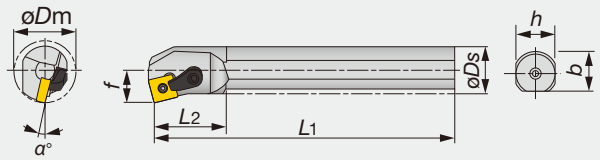
S-MWLNR/L: Inserts → **B095 -**, CBN → **B165**

S-MSKNR/L

Multi-clamp boring bar, for negative square inserts



Cutting edge style **K**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S25R-MSKNR/L12	STEEL	32	25	17	200	40	23	22.5	-12	0.8	SN**1204...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (MSKNL** type), and the left hand insert (L) is used for the right hand toolholders (MSKNR** type).

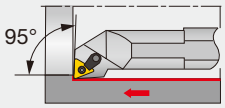
SPARE PARTS

Designation	Clamp	Pin	Clamping screw	Wrench 1	Wrench 2
S25R-MSKNR/L12	MCPM-21 MCL-6*	MLP44	MCS620-3	P-3	P-2.5F

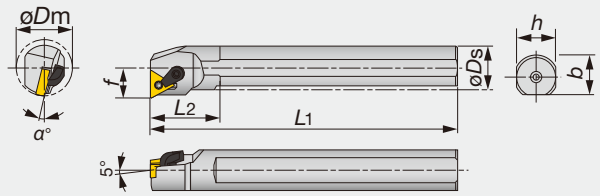
Note: * marked parts type No. in former type No.

S-MTFNR/L

Multi-clamp boring bar, for negative triangle inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S25R-MTFNR/L16	STEEL	32	25	17	200	40	23	22.5	-12	0.8	TN**1604...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (MTFNL** type), and the left hand insert (L) is used for the right hand toolholders (MTFNR** type).

SPARE PARTS

Designation	Clamp	Pin	Clamping screw	Wrench1	Wrench 2
S25R-MTFNR/L16	MCPM-6 MCL-5M*	MLP33L	MCS520-2.5	P-2.5	P-2F

Note: * marked parts type No. in former type No.

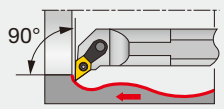
Reference pages

S-MSKNR/L: Inserts → **B071 -**, CBN → **B164 -**, PCD → **B176**

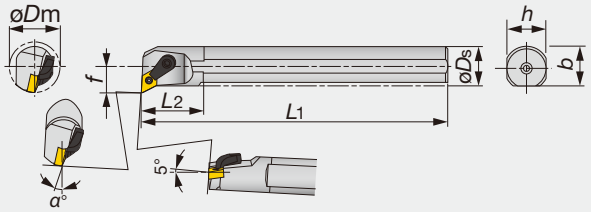
S-MTFNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176**

S-MDUNR/L

Multi-clamp boring bar, for negative 55° rhombic inserts



Cutting edge style **U**



Right hand (R) shown.

Designation	Material	øDm	øDs	f	L1	L2	h	b	α°	rε**	Insert
S25R-MDUNR/L11	STEEL	32	25	17	200	40	23	22.5	-12	0.8	DN**1104...

**rε: Standard corner radius
Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (MDUNL** type), and the left hand insert (L) is used for the right hand toolholders (MDUNR** type).

SPARE PARTS

Designation	Clamp	Pin	Clamping screw	Wrench 1	Wrench 2
S25R-MDUNR/L11	MCPM-21 MCL-6*	MLP33L	MCS620-3	P-3	P-2F

Note: * marked parts type No. in former type No.

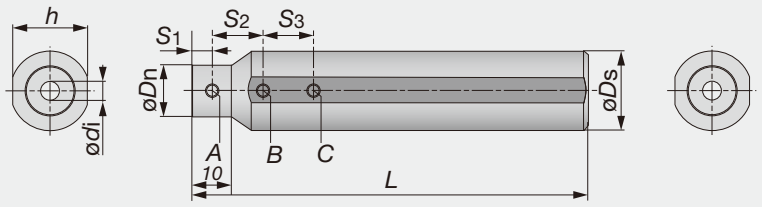
Int. Toolholder

Reference pages

S-MDUNR/L: Inserts → **B061 -**

BLM sleeves

Standard Sleeves for SJB-Mini series with round shank



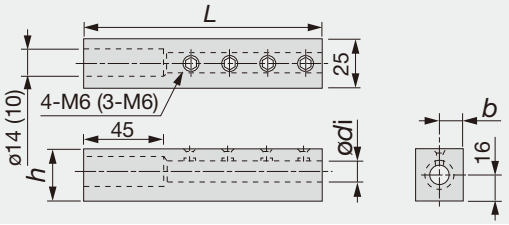
Designation	øDs	ødi	øDn	L	h	S1	S2	S3
BLM159-04	15.875	4	15	100	15	5	15	15
BLM159-05	15.875	5	15	100	15	5	15	15
BLM159-06	15.875	6	15	100	15	5	20	20
BLM159-07	15.875	7	15	100	15	5	20	20
BLM16-04	16	4	15	100	15	5	15	15
BLM16-05	16	5	15	100	15	5	15	15
BLM16-06	16	6	15	100	15	5	20	20
BLM16-07	16	7	15	100	15	5	20	20
BLM19-04	19.05	4	18	100	18	5	15	15
BLM19-05	19.05	5	18	100	18	5	15	15
BLM19-06	19.05	6	18	100	18	5	20	20
BLM19-07	19.05	7	18	100	18	5	20	20
BLM20-04	20	4	13	100	19	5	15	15
BLM20-05	20	5	14	100	19	5	15	15
BLM20-06	20	6	15	100	19	5	20	20
BLM20-07	20	7	16	100	19	5	20	20
BLM22-04	22	4	13	125	21	5	15	15
BLM22-05	22	5	14	125	21	5	15	15
BLM22-06	22	6	15	125	21	5	20	20
BLM22-07	22	7	16	125	21	5	20	20
BLM25-04	25	4	13	125	24	5	15	15
BLM25-05	25	5	14	125	24	5	15	15
BLM25-06	25	6	15	125	24	5	20	20
BLM25-07	25	7	16	125	24	5	20	20
BLM254-04	25.4	4	13	125	24	5	15	15
BLM254-05	25.4	5	14	125	24	5	15	15
BLM254-06	25.4	6	15	125	24	5	20	20
BLM254-07	25.4	7	16	125	24	5	20	20

SPARE PARTS

Designation	Clamping screw *A*	Clamping screw *B*, *C*	Wrench	Seal cap (Optional parts: inner screw)
BLM159, 16...	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM19-04	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM19-05, 06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM20-04, 05	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM20-06, 07	SSHM4-4	SSHM4-4	P-2	CA-16(M6)
BLM22-...	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM25-04, 05	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM25-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)
BLM254-04, 05, 06	SSHM4-4	SSHM4-8	P-2	CA-16(M6)
BLM254-07	SSHM4-4	SSHM4-6	P-2	CA-16(M6)

BLS sleeves

Sleeves for boring bars with square shank (regular length)



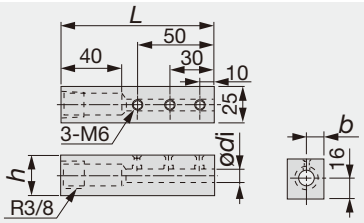
Designation	ødi	L	h	b
BLS16-08	8	125	28	12.5
BLS16-10	10	125	28	12.5
BLS16-12	12	125	28	12.5

SPARE PARTS

Designation	Wrench
BLS16-...	P-3

BLS-C sleeves

Sleeves for boring bars with square shank (short type)



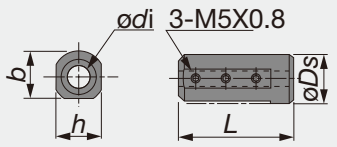
Designation	ødi	L	h	b
BLS16-08C	8	100	28	12.5
BLS16-10C	10	100	28	12.5
BLS16-12C	12	100	28	12.5

SPARE PARTS

Designation	Wrench
BLS16-**C	P-3

BLM sleeves

Sleeves for boring bars with round shank



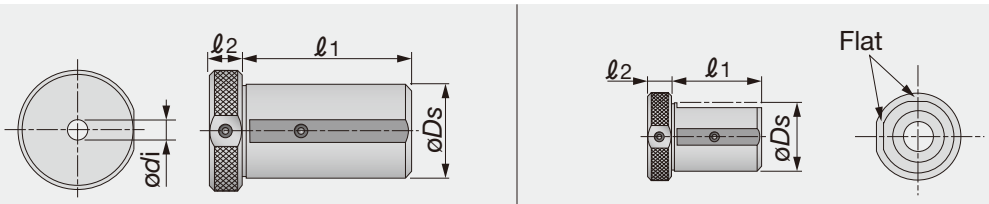
Designation	ødi	øDs	L	h	b
BLM19-08	8	19.05	100	18	18
BLM20-08	8	20	100	19	18
BLM22-08	8	22	125	21	21
BLM254-08	8	25.4	125	24	24
BLM25-08C	8	25	55	24	23
BLM25-10C	10	25	55	24	23
BLM25-12C	12	25	55	24	23

SPARE PARTS

Designation	Wrench
BLM...	P-2.5

BLC sleeves

Standard Sleeves for boring bars with round shank



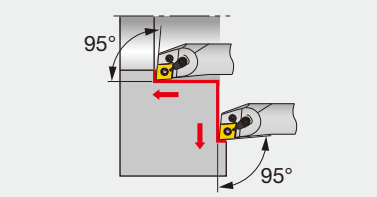
Designation	ødi	ℓ1	ℓ2	øDs
BLC40-8	8	73	13	40
BLC40-10	10	73	13	40
BLC40-12	12	73	13	40
BLC40-16	16	73	13	40
BLC32-8C	8	45	20	32
BLC32-10C	10	45	20	32
BLC32-12C	12	45	20	32
BLC40-8C	8	55	13	40
BLC40-10C	10	55	13	40
BLC40-12C	12	55	13	40
BLC40-16C	16	55	13	40

SPARE PARTS

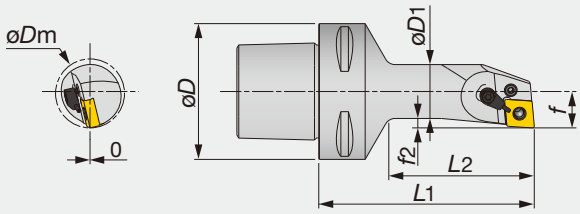
Designation	Wrench
BLC40-8	P-3
BLC40-1...	P-4
BLC32-8C	P-3
BLC32-1*C	P-4
BLC40-8C	P-3
BLC40-1*C	P-4

C-PCLNL-CHP

Lever lock type internal toolholder with TungCap connection with 95° approach angle. For negative 80° rhombic insert. High-pressure coolant capability.



Cutting edge style **L**



Designation	øDm	øD	øD1	L1	L2	f	f2	rε**	Insert
C6PCLNL17100-12-CHP	32	63	25	100	67.5	17	4.5	0.8	CN**1204...

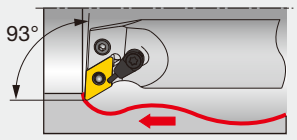
Applicable for 14 MPa pressure coolant
**rε: Standard corner radius

SPARE PARTS

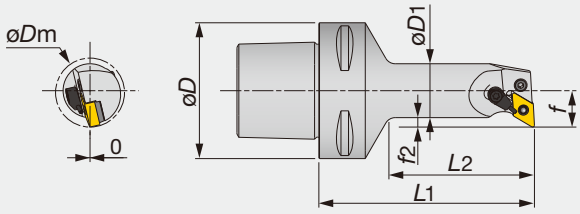
Designation	Clamping screw	Coolant unit	Wrench	Lever
C6PCLNL17100-12-CHP	LCS43	S-CU-CHP	P-2.5F	LCL43N

C-PDUNL-CHP

Lever lock type internal toolholder with TungCap connection with 93° approach angle. For negative 55° rhombic insert. High-pressure coolant capability.



Cutting edge style **U**



Left hand (L) shown.

Designation	øDm	øD	øD1	L1	L2	f	f2	rε**	Insert
C6PDUNL17100-1104-CHP	32	63	25	100	67.5	17	4.5	0.8	DN**1104...

Applicable for 14 MPa pressure coolant
**rε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Coolant unit	Wrench	Spring pin	Lever
C6PDUNL17100-1104-CHP	ELSD317BL	LCS43	S-CU-CHP	P-2.5	LSP3	LCL33L

Reference pages

C-PCLNL-CHP: Inserts → **B050 -**, CBN → **B163 -**, PCD → **B176**

C-PDUNL-CHP: Inserts → **B061 -**, CBN → **B163 -**, PCD → **B176**

TurnLine - Miniature Machining

MINIFORCETURN

B188, B268

Economical double-sided inserts with excellent sharpness

TETRAMINICUT

C049

Unique insert geometry for highly precise grooving

W = 0.33 - 3.0 mm

TETRAFORCECUT

C041

4-cornered inserts with good clamping rigidity for highly precise grooving and parting

W = 0.5 - 3.18 mm

DUOJUSTCUT

C009

Innovative clamping system for stable parting operations

W = 1.0 - 2.0 mm

TUNGCUT

C053

Multi-functional tool series for various grooving operations

W = 1.4 - 8.0 mm

TUNGHEAVYGROOVE

C123

Highly rigid clamping system for wide grooving and profiling in one pass

W = 10 - 25 mm

J-SERIES

B328

Toolholders for small-part machining

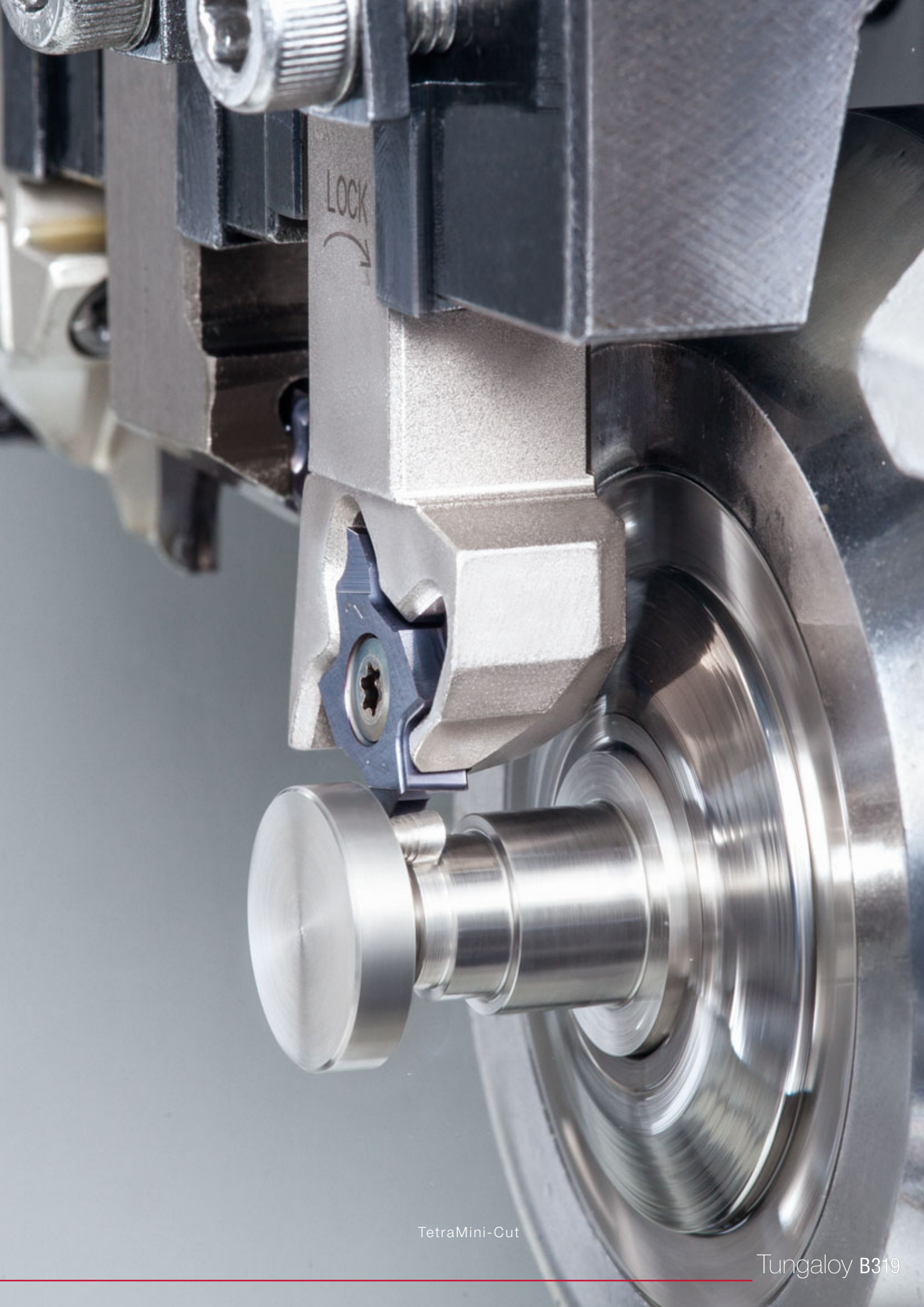
TINYMINITURN

B352

Solid boring bars for turning small diameters with high precision

Other Tool for Miniature Machining

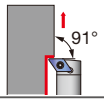
B375



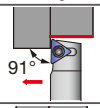
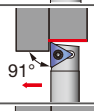
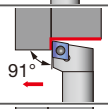
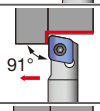
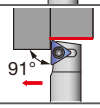
TetraMini-Cut

Miniature External Turning - Quick Guide

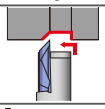
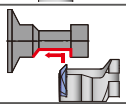
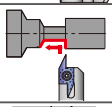
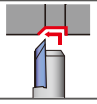
Facing

Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JSDFCR/L** Cutting edge angle 91° Insert type: DC□□	✓		12 - 16 mm	Screw-on clamping with offset	B335

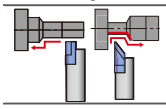
External Turning

Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JTTACR/L** Cutting edge angle 91° Insert type: TC□□	✓		8 - 16 mm	Back side clamping without offset	B336
	**JSTACR/L** Cutting edge angle 91° Insert type: TC□□	✓		8 - 16 mm	Screw-on clamping without offset	B336
	**JSCGCR/L** Cutting edge angle 91° Insert type: CC□□	✓		12 - 16 mm	Screw-on clamping with offset	B331
	**JSCACL** Cutting edge angle 91° Insert type: CC□□	✓		10 - 12 mm	Screw-on clamping without offset	B330
	**JTTANR/L** Cutting edge angle 91° Insert type: TN□□		✓	12 - 16 mm	Back side clamping without offset	B343

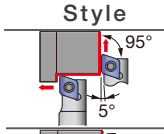
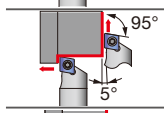
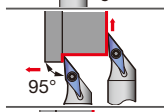
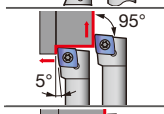
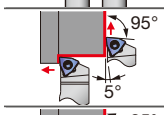
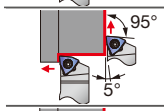
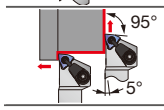
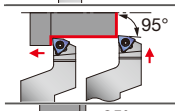
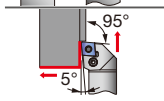
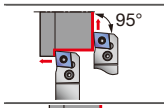
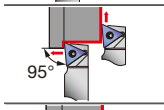
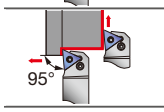
Back Turning

Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JSTBR/L** Insert type: JTBR/L3□□	✓		10 - 16 mm	Screw-on clamping	B347
	**JS-TBL3** Insert type: JTBR3□□	✓		ø19.05 - 25.4 mm	Screw-on clamping	B347
	**JSEGR/L** Insert type: J10ER/L□□	✓		10 - 16 mm	Screw-on clamping	B349
	**JSXBR/L** Insert type: JXBR/L8□□	✓		10 - 25 mm	Screw-on clamping	B346

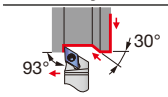
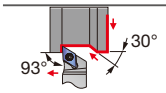
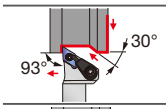
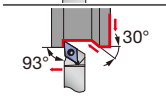
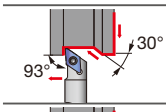
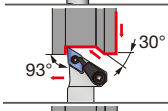
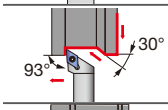
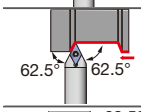
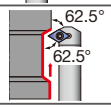
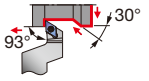
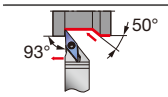
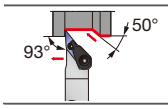
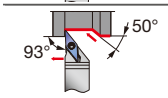
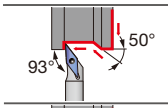
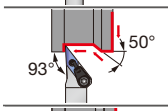
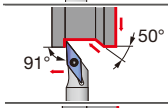
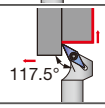
Front & Reverse Turning

Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JSXGR/L** Insert type: JXFR/L8 JXRR/L8	✓		10 - 25 mm	Screw-on clamping	B345

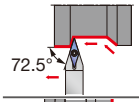
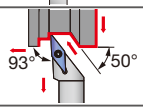
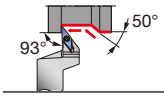
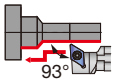
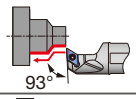
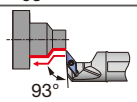
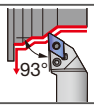
External Turning & Facing

Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JTCL2CR/L** Cutting edge angle 95° Insert type: CC□□	✓		8 - 16 mm	Back side clamping without offset	B328
	**JSCL2CR/L** Cutting edge angle 95° Insert type: CC□□	✓		10 - 16 mm	Screw-on clamping without offset	B328
	**JSVL2PR/L** Cutting edge angle 95° Insert type: VP□□	✓		10 - 16 mm	Screw-on clamping without offset	B341
	**JSCLCR/L** Cutting edge angle 95° Insert type: CC□□	✓		8 - 16 mm	Screw-on clamping with offset	B329
	**JPWL2XR/L** Cutting edge angle 95° Insert type: WXGU	✓		10 - 16 mm	Side clamping without offset	B188
	**JSWL2XR/L** Cutting edge angle 95° Insert type: WXGU	✓		10 - 20 mm	Screw-on clamping without offset	B188
	**JSWL2XR/L-CHP** Cutting edge angle 95° Insert type: WXGU	✓		12 mm	Screw-on clamping without offset	B189
	**JSWLXR-F** Cutting edge angle 95° Insert type: WXGU	✓		10 - 16 mm	Screw-on clamping with offset	B189
	**PCLNR** Cutting edge angle 95° Insert type: CN□□		✓	20 mm	Lever-lock clamping with offset	B342
	**PCL2NR** Cutting edge angle 95° Insert type: CN□□		✓	20 mm	Lever-lock clamping without offset	B342
	**JTTLNR/L** Cutting edge angle 95° Insert type: TN□□		✓	12 - 16 mm	Back side clamping without offset	B343
	**PTL2NR/L** Cutting edge angle 95° Insert type: TN□□		✓	20 mm	Lever-lock clamping without offset	B344

External Turning & Profiling

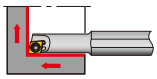
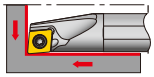
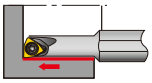
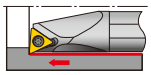
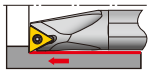
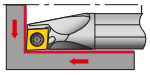
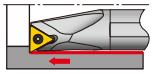
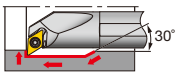
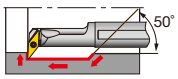
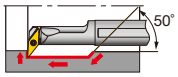
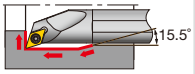
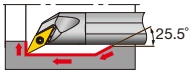
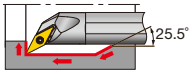
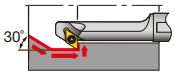
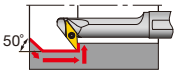
Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JPDJ2XR/L** Cutting edge angle 93° Insert type: DXGU	✓		10 - 16 mm	Side clamping without offset	B190
	**JSDJ2XR/L** Cutting edge angle 93° Insert type: DXGU	✓		10 - 20 mm	Screw-on clamping without offset	B190
	**JSDJ2XR/L-CHP** Cutting edge angle 93° Insert type: DXGU	✓		12 mm	Screw-on clamping without offset	B191
	**JTDJ2CR/L** Cutting edge angle 93° Insert type: DC□□	✓		10 - 16 mm	Back side clamping without offset	B332
	**JSDJ2CR/L** Cutting edge angle 93° Insert type: DC□□	✓		8 - 16 mm	Screw-on clamping without offset	B331
	**JSDJ2CR/L-CHP** Cutting edge angle 93° Insert type: DC□□	✓		12 mm	Screw-on clamping without offset	B333
	**JSDJCR/L** Cutting edge angle 93° Insert type: DC□□	✓		8 - 16 mm	Screw-on clamping with offset	B333
	**JSDNCN** Cutting edge angle 62.5° Insert type: DC□□	✓		10 - 16 mm	Screw-on clamping with offset	B334
	**JSDN3CR/L** Cutting edge angle 62.5° Insert type: DC□□	✓		12 - 16 mm	Screw-on clamping with offset	B334
	**JSDJXR-F** Cutting edge angle 93° Insert type: DXGU	✓		10 - 16 mm	Screw-on clamping with offset	B191
	**JPVJ2XR/L** Cutting edge angle 93° Insert type: VXGU	✓		10 - 16 mm	Side clamping without offset	B192
	**JSVJ2XR/L-CHP** Cutting edge angle 93° Insert type: VXGU	✓		12 mm	Screw-on clamping without offset	B193
	**JSVJ2XR/L** Cutting edge angle 93° Insert type: VXGU	✓		10 - 20 mm	Screw-on clamping without offset	B192
	**JSVJ2BR/L** Cutting edge angle 93° Insert type: VB□□	✓		10 - 16 mm	Screw-on clamping without offset	B337
	**JSVJ2BR/L-CHP** Cutting edge angle 93° Insert type: VB□□	✓		12 mm	Screw-on clamping without offset	B338
	**JSVABR/L** Cutting edge angle 91° Insert type: VB□□	✓		10 - 16 mm	Screw-on clamping without offset	B338
	**JSVP2PR/L** Cutting edge angle 117.5° Insert type: VP□□	✓		10 - 16 mm	Screw-on clamping without offset	B341

External Turning & Profiling

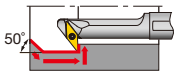
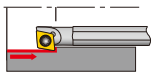
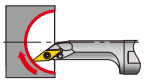
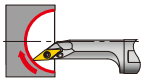
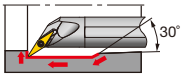
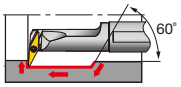
Style	Description	Type of insert		Shank Size	Clamping style	See page
		Positive	Negative			
	**JSVNBN** Cutting edge angle 72.5° Insert type: VB□□	✓		10 - 16 mm	Screw-on clamping with offset	B340
	**JSVJBR/L** Cutting edge angle 93° Insert type: VB□□	✓		10 - 16 mm	Screw-on clamping with offset	B337
	**JSVJXR-F** Cutting edge angle 93° Insert type: VXGU	✓		10 - 16 mm	Screw-on clamping with offset	B193
	**JS-SDUCL** Cutting edge angle 93° Insert type: DC□□	✓		ø19.05 - 25.4 mm	Screw-on clamping with offset	B335
	**JS-SDUXL** Cutting edge angle 93° Insert type: DXGU	✓		ø14 - 25.4 mm	Screw-on clamping with offset	B194
	**JS-SVUXL** Cutting edge angle 93° Insert type: VXGU	✓		ø15.875 - 25.4 mm	Screw-on clamping with offset	B194
	**PDJNR** Cutting edge angle 93° Insert type: DN□□		✓	20 mm	Lever-lock clamping with offset	B342

Miniature Internal Turning - Quick Guide

Positive type

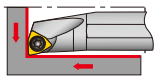
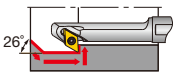
Style	StreamJet-Bar Description & Application	ISO Insert	Y-Pro	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SEXPR/L** Boring & Internal facing Insert type: EP□□	✓		Steel Carbide	ø4 - ø8 ø4 - ø8	ø4.5 – ø7 ø4.5 – ø7	B279
	**SCLCR/L** Boring & internal facing Insert type: CC□□	✓		Steel Carbide	ø4 - ø25 ø4 - ø25	ø5 – ø27 ø5 – ø27	B278
	**SWUBR/L** Boring Insert type: WB□□	✓		Steel Carbide	ø5 - ø8 ø5 - ø8	ø6 – ø8 ø6 – ø8	B286
	**STUPR/L** Boring Insert type: TP□□	✓		Steel Carbide	ø7 - ø32 ø7 - ø25	ø8 – ø34 ø8 – ø27	B285
	**STFPR/L** Blind hole boring Insert type: TP□□	✓		Steel Carbide	ø8 - ø25 ø8 - ø20	ø10 – ø27 ø10 – ø22	B284
	**SCLPR/L** Boring & internal facing Insert type: CP□□	✓		Steel Carbide	ø8 - ø25 ø8 - ø16	ø10 – ø27 ø10 – ø20	B280
	**STFCR/L** Blind hole boring Insert type: TC□□	✓		Steel Carbide	ø10 - ø16 ø10 - ø16	ø12 – ø18 ø12 – ø18	B283
	**SDUCR/L** Boring & internal profiling Insert type: DC□□	✓		Steel Carbide	ø10 - ø25 ø10 - ø20	ø13 – ø32 ø13 – ø27	B287
	**SVUCR/L** Boring & internal profiling Insert type: VC□□	✓		Steel Carbide	ø12 - ø25 ø12 - ø25	ø16 – ø32 ø18 – ø32	B288
	**SVUBR/L** Boring & internal profiling Insert type: VB□□	✓		Steel Carbide	ø16 - ø25 ø16 - ø25	ø20 – ø32 ø24.5 – ø34	B287
	**SDQCR/L** Boring & internal profiling Insert type: DC□□	✓		Steel Carbide	ø10 - ø25 ø10 - ø20	ø13 – ø30 ø13 – ø25	B288
	**SVQCR/L** Boring & internal profiling Insert type: VC□□	✓		Steel Carbide	ø10 - ø16 ø10 - ø16	ø13.5 – ø21.5 ø13.5 – ø21.5	B289
	**SVQBR/L** Boring & internal profiling Insert type: VB□□	✓		Steel Carbide	ø12 - ø25 ø12 - ø25	ø17 – ø30.5 ø17 – ø30.5	B289
	**SDZCR/L** Internal retracting Insert type: DC□□	✓		Steel Carbide	ø12 - ø25 ø12 - ø16	ø14 – ø25 ø18 – ø22	B290
	**SVZCR/L** Internal retracting Insert type: VC□□	✓		Steel	ø12	ø16	B291

Miniature Tool

Style	StreamJet-Bar Description & Application	ISO Insert	Y-Pro	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SVZBR/L** Internal retracting Insert type: VB□□	✓		Steel	ø16 - ø32	ø20 – ø40	B291
	**SEZPR/L** Internal retracting Insert type: EP□□	✓		Steel Carbide	ø4 - ø5 ø4 - ø5	ø5.5 – ø6.5 ø5.5 – ø6.5	B292
	**SVJCR/L** Internal sphere cutting Insert type: VC□□	✓		Steel	ø12 - ø16	ø16 – ø20	B282
	**SVJBR/L** Internal sphere cutting Insert type: VB□□	✓		Steel	ø20 - ø25	ø25 – ø30	B282
	**SYQBR/L** Internal undercut & profiling Insert type: YW□□		✓	Steel Carbide	ø12 - ø16 ø12 - ø16	ø17 – ø21.5 ø17 – ø21.5	B300
	**SYUBR/L** Boring & internal profiling Insert type: YW□□		✓	Steel Carbide	ø16 ø12 - ø16	ø20 ø20 – ø24.5	B300

Miniature Internal Turning - Quick Guide

Double-sided insert with positive cutting edges

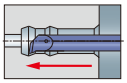
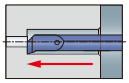
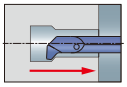
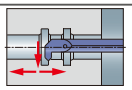
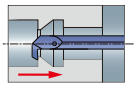
Style	MiniForce-Turn Description & Application	MiniForce -Turn	Shank Type	Shank Ø	Min. bore diameter (mm) (0 10 20 30 40 50)	See page
	**SWLXR/L** Boring & facing Insert type: WXGU	✓	Steel Carbide	ø10 - ø20 ø10 - ø20	ø12 – ø22 ø12 – ø22	B268
	SDXXR/L Internal profiling Insert type: DXGU	✓	Steel Carbide	ø10 - ø20 ø10 - ø20	ø13 – ø24 ø13 – ø24	B268
	**SDZXR/L** Internal retracting Insert type: DXGU	✓	Steel Carbide	ø12 - ø20 ø12 - ø16	ø14 – ø20 ø18 – ø22	B269

Miniature Tool

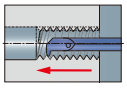
Miniature Internal Turning - Quick Guide

TinyMini-Turn - Solid carbide tools for small diameters turning

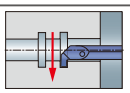
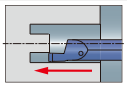
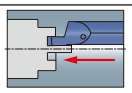
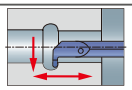
Boring, profiling, chamfering

Style	TinyMini-Turn Description & Application	Shank øDs	Min. bore diameter øDm (mm) 0 2 4 6 8 10	See page
	**JBT** Boring, profiling, & chamfering	ø4 & ø7	ø0.6 – ø7	B352
	**JBP** Boring & chamfering	ø4 & ø7	ø2.8 – ø5	B353
	**JBU** Back boring & chamfering	ø7	ø5	B353
	**JBC** Boring & 45° chamfering	ø7	ø5 – ø6.8	B353
	**JBB** Back boring	ø4 & ø7	ø3 – ø7	B354

Threading

Style	TinyMini-Turn Description & Application	Shank øDs	Min. bore diameter øDm (mm) 0 2 4 6 8 10	See page
	**JBI** Threading (Metric thread)	ø4 & ø7	ø4 – ø7	B354

Grooving

Style	TinyMini-Turn Description & Application	Shank øDs	Groove width	Min. bore diameter øDm (mm) 0 2 4 6 8 10 12 14 15	See page
	**JBG** Grooving	ø4 & ø7	0.5 - 2	ø2 – ø6.8	B355
	**JBF** Face grooving	ø7	1 - 3	ø6 – ø15	B356
	**JBS** Face grooving (for shaft)	ø7	2	ø6	B356
	**JBR** Boring & profiling (full radius type)	ø7	1	ø5 – ø6.8	B357

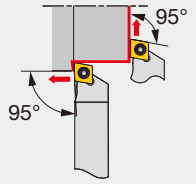
Miniature Tool

MEMO

J-SERIES

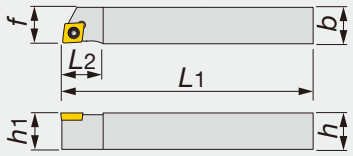
JSCL2CR/L

Screw-on toolholder without offset with 95° approach angle for positive 80° rhombic inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert	Torque*
JSCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	1.2
JSCL2CR/L1212F06	12	12	85	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212X06	12	12	120	12	12	12	0.2	CC**0602...	1.2
JSCL2CL1212K06	12	12	125	12	12	12	0.4	CC**0602...	1.2
JSCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

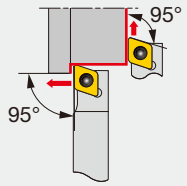
SPARE PARTS

Designation	Clamping screw	Wrench
JSCL2CR/L**06	CSTB-2.5	T-8F
JSCL2CR/L**09	CSTB-4SD	T-8F

J-SERIES

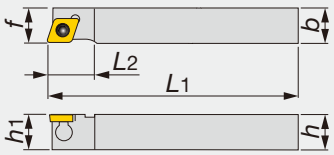
JTCL2CR/L

Back clamp toolholder without offset with 95° approach angle for positive 80° rhombic inserts



Cutting edge style **L2**

Without offset



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert	Torque*
JTCL2CL0810K06	8	10	125	12	8	10	0.4	CC**0602...	0.9
JTCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	0.9
JTCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2
JTCL2CR1616M09	16	16	150	16	16	16	0.8	CC**09T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

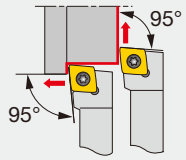
Designation	Clamp	Clamping screw	Wrench
JTCL2CR/L**06	JCP-2	JDS-3525	P-2F
JTCL2CR/L**09	JCP-3	JDS-5040	P-2.5F

Reference pages

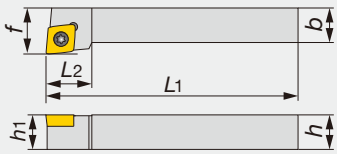
JSCL2CR/L, JTCL2CR/L: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

J-SERIES
JSCLCR/L

Screw-on toolholder with 95° approach angle for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSCLCR/L0808H06	8	8	100	12	8	10	0.4	CC**0602...	1.2
JSCLCR/L1010H06	10	10	100	12	10	12	0.4	CC**0602...	1.2
JSCLCR/L1212H09	12	12	100	16	12	16	0.8	CC**09T3...	1.2
JSCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

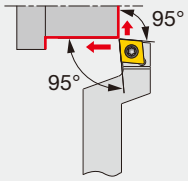
**r_ε: Standard corner radius

SPARE PARTS

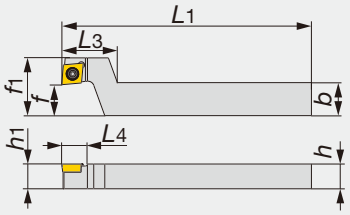
Designation	Clamping screw	Wrench
JSCLCR/L**H06	CSTB-2.5	T-8F
JSCLCR/L**H09	CSTB-4SD	T-8F

J-SERIES
JSCLCR-F

Screw-on stepped-head toolholder with 95° approach angle for positive 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	L_3	L_4	h_1	*f*	f_1	r_ε**	Insert	Torque*
JSCLCR1216F09-F15	12	16	85	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1216X09-F15	12	16	120	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1620X09-F15	16	20	120	12	27	12.5	16	15	28	0.2	CC**09T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

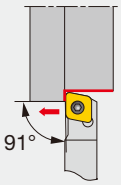
Designation	Clamping screw	Wrench
JSCLCR**F15	CSTB-4SD	T-8F

Reference pages

JSCLCR/L, JSCLCR-F: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

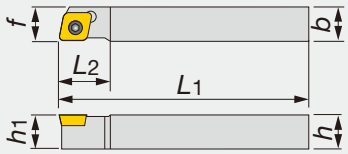
JSCACL

Screw-on toolholder without offset with 91° approach angle for positive 80° rhombic inserts



Cutting edge style **A**

Without offset



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSCACL1010H06	10	10	100	12	10	10	0.4	CC**0602...	1.2
JSCACL1212H09	12	12	100	16	12	12	0.8	CC**09T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

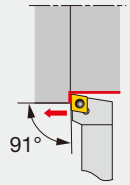
Designation	Clamping screw	Wrench
JSCACL1010H06	CSTB-2.5	T-8F
JSCACL1212H09	CSTB-4SD	T-8F

Reference pages

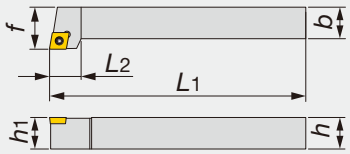
JSCACL: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

J-SERIES
JSCGCR/L

Screw-on toolholder with 91° approach angle for positive 80° rhombic inserts



Cutting edge style **G**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert	Torque*
JSCGCR/L1212H06	12	12	100	12	12	16	0.4	CC**0602...	1.2
JSCGCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

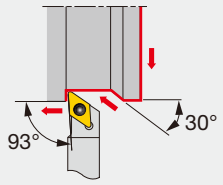
*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

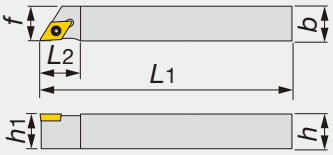
Designation	Clamping screw	Wrench
JSCGCR/L1212H06	CSTB-2.5	T-8F
JSCGCR/L1616H09	CSTB-4SD	T-8F

J-SERIES
JSDJ2CR/L

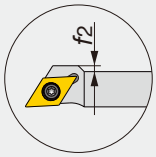
Screw-on toolholder without offset with 93° approach angle for positive 55° rhombic inserts



Cutting edge style **J2**



Without offset



JSDJ2CR/L1010X11
JSDJ2CR/L1212F11
JSDJ2CR/L1212X11

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*rε***	Insert	Torque*
JSDJ2CR/L0808F07	8	8	85	14	8	8	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X11	10	10	120	20	10	10	4	0.2	DC**11T3...	1.2
JSDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CL1212K07	12	12	125	14	12	12	-	0.4	DC**0702...	1.2
JSDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
JSDJ2CR/L**07	CSTB-2.5	T-8F
JSDJ2CR/L**11	CSTB-4SD	T-8F

Reference pages

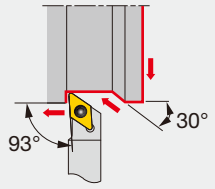
JSCGCR/L: Inserts → **B104 -**, CBN → **B168 -**, PCD → **B177**

JSDJ2CR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

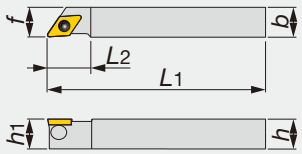
J-SERIES

JTDJ2CR/L

Back clamp toolholder without offset with 93° approach angle for positive 55° rhombic inserts

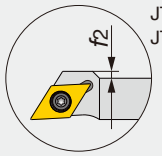


Cutting edge style **J2**



Without offset

JTDJ2CR/L1212F11
JTDJ2CR/L1212X11



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	f_2	r_ε**	Insert	Torque*
JTDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CL1212M11	12	12	150	20	12	12	-	0.8	DC**11T3...	1.2
JTDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

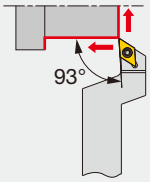
Designation	Clamp	Clamping screw	Wrench
JTDJ2CR/L**07	JCP-2	JDS-3525	P-2F
JTDJ2CR/L**11	JCP-3	JDS-5040	P-2.5F

Miniature Tool

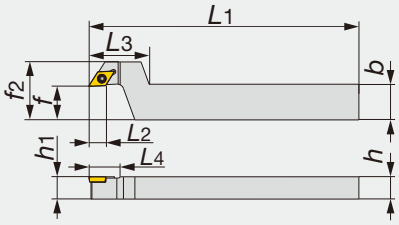
J-SERIES

JSDJCR-F

Screw-on stepped-head toolholder with 93° approach angle for positive 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	L_3	L_4	h_1	*f*	f_2	r_ε**	Insert	Torque*
JSDJCR1016X07-F15	10	16	120	12.5	27	14	10	15	26	0.2	DC**0702...	1.2
JSDJCR1216F07-F15	12	16	85	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216X07-F15	12	16	120	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216F11-F15	12	16	85	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1216X11-F15	12	16	120	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1620X11-F15	16	20	120	12.5	27	20	16	15	28	0.2	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
JSDJCR**07-F15	CSTB-2.5	T-8F
JSDJCR**11-F15	CSTB-4SD	T-8F

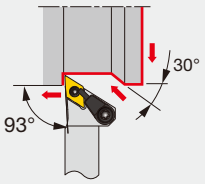
Reference pages

JTDJ2CR/L, JSDJCR-F: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

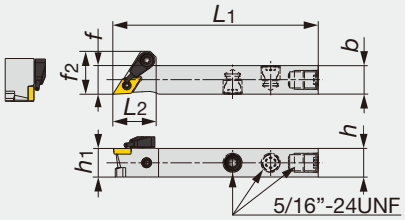
J-SERIES

JSDJ2CR/L-CHP

Screw-on toolholder without offset with 93° approach angle for positive 55° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	f_2	r_ε**	Insert	Torque*
JSDJ2CR/L1212F07-CHP	12	12	85	18	12	12	18	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11-CHP	12	12	85	19	12	12	20.5	0.2	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

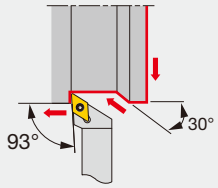
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSDJ2CR/L1212F07-CHP	CSTB-2.5	S-CU-CHP	T-8F
JSDJ2CR/L1212F11-CHP	CSTB-4SD	S-CU-CHP	T-8F

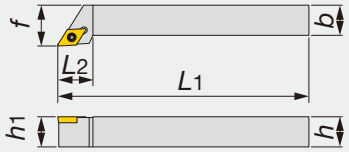
J-SERIES

JSDJCR/L

Screw-on toolholder with 93° approach angle for positive 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L_1	L_2	h_1	f	r_ε**	Insert	Torque*
JSDJCR/L0808H07	8	8	100	14	8	10	0.4	DC**0702...	1.2
JSDJCR/L1010H11	10	10	100	18	10	12	0.8	DC**11T3...	1.2
JSDJCR/L1212H07	12	12	100	14	12	16	0.4	DC**0702...	1.2
JSDJCR/L1212H11	12	12	100	18	12	16	0.8	DC**11T3...	1.2
JSDJCR/L1616H11	16	16	100	18	16	20	0.8	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

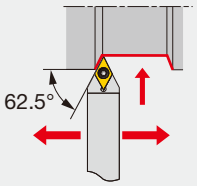
Designation	Clamping screw	Wrench
JSDJC**H07	CSTB-2.5	T-8F
JSDJC**H11	CSTB-4SD	T-8F

Reference pages

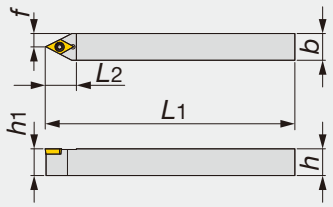
JSDJ2CR/L-CHP, JSDJCR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

J-SERIES
JSDNCN

Screw-on toolholder with 62.5° approach angle for positive 55° rhombic inserts



Cutting edge style **N**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSDNCN1010X07	10	10	120	15	10	5	0.2	DC**0702...	1.2
JSDNCN1010X11	10	10	120	21	10	5	0.2	DC**11T3...	1.2
JSDNCN1212F07	12	12	85	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212X07	12	12	120	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212F11	12	12	85	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1212H11	12	12	100	21	12	6	0.8	DC**11T3...	1.2
JSDNCN1212X11	12	12	120	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1616X11	16	16	120	21	16	8	0.2	DC**11T3...	1.2

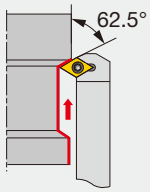
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

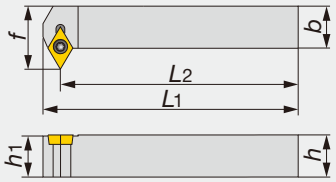
Designation	Clamping screw	Wrench
JSDNCN**07	CSTB-2.5	T-8F
JSDNCN**11	CSTB-4SD	T-8F

J-SERIES
JSDN3CR/L

Screw-on toolholder with 62.5° approach angle (N3-style) for positive 55° rhombic inserts



Cutting edge style **N3**



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSDN3CR1212H07	12	12	105	100	12	18	0.4	DC**0702...	1.2
JSDN3CR1616H11	16	16	107	100	16	25	0.8	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

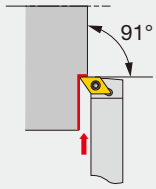
Designation	Clamping screw	Wrench
JSDN3CR1212H07	CSTB-2.5	T-8F
JSDN3CR1616H11	CSTB-4SD	T-8F

Reference pages

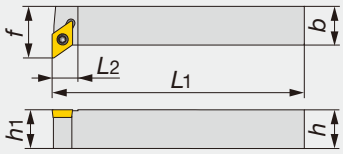
JSDNCN, JSDN3CR/L: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

J-SERIES
JSDFCR/L

Screw-on toolholder for facing with 91° approach angle for positive 55° rhombic inserts



Cutting edge style **F**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*rε***	Insert	Torque*
JSDFCR/L1212H07	12	12	100	8	12	16	0.4	DC**0702...	1.2
JSDFCR/L1616H11	16	16	100	10.5	16	22	0.8	DC**11T3...	1.2

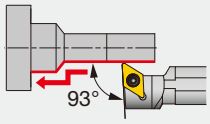
*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

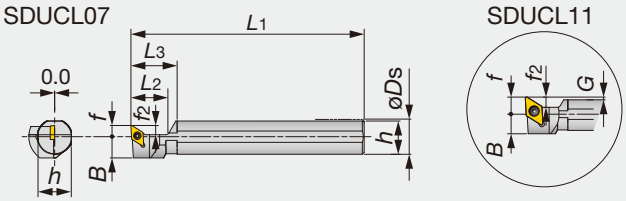
Designation	Clamping screw	Wrench
JSDFCR/L1212H07	CSTB-2.5	T-8F
JSDFCR/L1616H11	CSTB-4SD	T-8F

J-SERIES
JS-SDUCL

Screw-on toolholder with 93° approach angle for positive 55° rhombic inserts



Cutting edge style **U**



Left hand (L) shown.

Designation	*øDs*	*f*	*f*2	*L*1	*L*2	*L*3	*h*	B	G	*rε***	Insert	Torque*
JS19K-SDUCL07	19.05	6	5	125	20	25	18	11.5	-	0.4	DC**0702...	1.2
JS20K-SDUCL07	20	6	5	125	20	25	19	11.5	-	0.4	DC**0702...	1.2
JS22K-SDUCL07	22	6	5	125	20	25	21	11.5	-	0.4	DC**0702...	1.2
JS19K-SDUCL11	19.05	10	6	125	20	25	18	11.5	1.525	0.8	DC**11T3...	1.2
JS20K-SDUCL11	20	10	6	125	20	25	19	11.5	1	0.8	DC**11T3...	1.2
JS22K-SDUCL11	22	11	6	125	20	25	21	11.5	1	0.8	DC**11T3...	1.2
JS25K-SDUCL11	25.4	12	6	125	20	25	24	12.7	0.7	0.8	DC**11T3...	1.2

*Torque: Recommended torque (N·m) for clamping
***rε*: Standard corner radius

SPARE PARTS

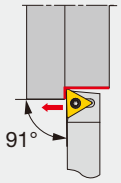
Designation	Clamping screw	Wrench
JS**K-SDUCL07	CSTB-2.5	T-8F
JS**K-SDUCL11	CSTB-4SD	T-8F

Reference pages

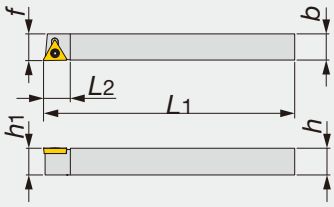
JSDFCR/L, JS-SDUCL: Inserts → **B114 -**, CBN → **B168 -**, PCD → **B177**

J-SERIES
JSTACR/L

Screw-on toolholder without offset with 91° approach angle for positive 60° triangle inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSTACR/L0808K08	8	8	125	10	8	8	0.2	TC**0802...	0.6
JSTACR/L1010K08	10	10	125	10	10	10	0.2	TC**0802...	0.6
JSTACR/L1212K11	12	12	125	12	12	12	0.4	TC**1102...	1.2
JSTACR/L1616H11	16	16	100	12	16	16	0.4	TC**1102...	1.2

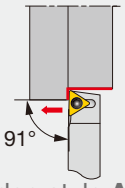
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

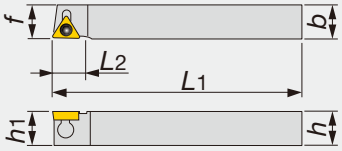
Designation	Clamping screw	Wrench
JSTACR/L**K08	CSTB-2L	T-6F
JSTACR/L**11	CSTB-2.5	T-8F

J-SERIES
JTTACR/L

Back clamp toolholder without offset with 91° approach angle for positive 60° triangle inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JTTACL0810K08	8	10	125	10	8	10	0.2	TC**0802...	0.9
JTTACR/L1212M11	12	12	150	12	12	12	0.4	TC**1102...	0.9
JTTACR/L1616M11	16	16	150	12	16	16	0.4	TC**1102...	0.9

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

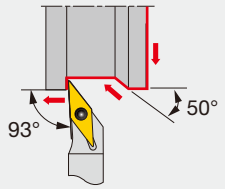
Designation	Clamp	Clamping screw	Wrench
JTTACL0810K08	JCP-1	JDS-3525	P-2F
JTTACR/L**M11	JCP-2	JDS-3525	P-2F

Reference pages

JSTACR/L, JTTACR/L: Inserts → **B131 -**, PCD → **B177**

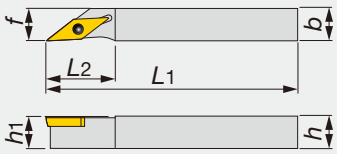
J-SERIES
JSVJ2BR/L

Screw-on toolholder without offset with 93° approach angle for positive 35° rhombic inserts



Cutting edge style **J2**

Without offset



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JSVJ2BR/L1010X11	10	10	120	21	10	10	0.2	VB**1103...	1.2
JSVJ2BL1010K11	10	10	125	21	10	10	0.2	VB**1103...	1.2
JSVJ2BR/L1212F11	12	12	85	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1212X11	12	12	120	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR1212K11	12	12	125	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1616X11	16	16	120	21	16	16	0.2	VB**1103...	1.2

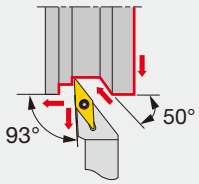
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

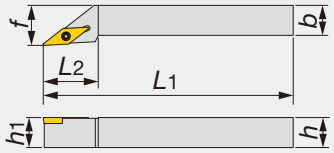
Designation	Clamping screw	Wrench
JSVJ2BR/L...	CSTB-2.5	T-8F

J-SERIES
JSVJBR/L

Screw-on toolholder with 93° approach angle for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JSVJBR/L1010H11	10	10	100	20	10	12	0.4	VB**1103...	1.2
JSVJBR/L1212H11	12	12	100	22	12	16	0.4	VB**1103...	1.2
JSVJBR/L1616H11	16	16	100	22	16	20	0.4	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
JSVJBR/L...	CSTB-2.5	T-8F

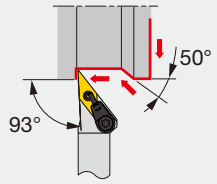
Reference pages

JSVJ2BR/L, JSVJBR/L: Inserts → **B145 -**, CBN → **B169 -**

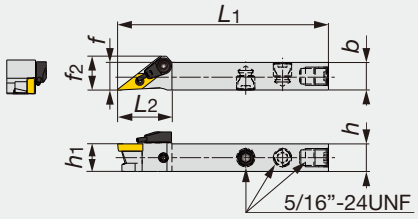
J-SERIES

JSVJ2BR/L-CHP

Screw-on toolholder without offset with 93° approach angle for positive 35° rhombic inserts, with channels for high pressure coolant



Cutting edge style **J2**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
JSVJ2BR/L1212F11-CHP	12	12	85	23.6	12	12	14.7	0.2	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

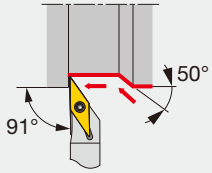
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSVJ2BR/L1212F11-CHP	CSTB-2.5	S-CU-CHP	T-8F

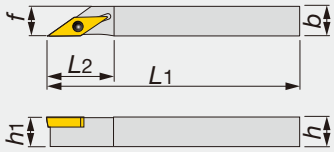
J-SERIES

JSVABR/L

Screw-on toolholder without offset with 91° approach angle for positive 35° rhombic inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
JSVABR/L1010K11	10	10	125	21	10	10	0.2	VB**1103...	1.2
JSVABL1212K11	12	12	125	21	12	12	0.2	VB**1103...	1.2
JSVABL1616K11	16	16	125	21	16	16	0.2	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

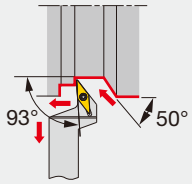
Designation	Clamping screw	Wrench
JSVABR/L...	CSTB-2.5	T-8F

Reference pages

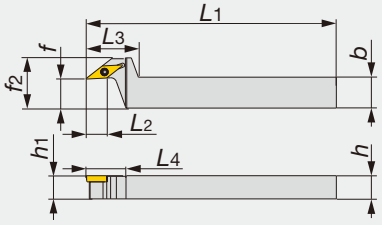
JSVJ2BR/L-CHP, JSVABR/L: Inserts → **B145 -**, CBN → **B169 -**

JSVJBR-F

Screw-on stepped-head toolholder with 93° approach angle for positive 35° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*L*3	*L*4	*h*1	*f*	*f*2	*r*ε**	Insert	Torque*
JSVJBR1216F11-F15	12	16	85	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1216X11-F15	12	16	120	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1620X11-F15	16	20	120	12.6	27	21	16	15	26	0.2	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
***r*ε: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
JSVJBR**-F15	CSTB-2.5	T-8F

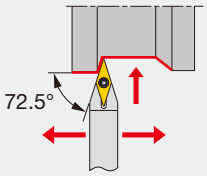
Miniature Tool

Reference pages

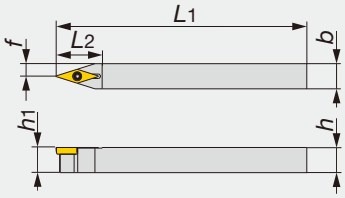
JSVJBR-F: Inserts → **B145 -**, CBN → **B169 -**

JSVNBN

Screw-on toolholder with 72.5° approach angle for positive 35° rhombic inserts



Cutting edge style **N**



Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
JSVNBN1010X11	10	10	120	22	10	5	0.2	VB**1103...	1.2
JSVNBN1212F11	12	12	85	22	12	6	0.2	VB**1103...	1.2
JSVNBN1212X11	12	12	120	22	12	6	0.2	VB**1103...	1.2
JSVNBN1616X11	16	16	120	22	16	8	0.2	VB**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

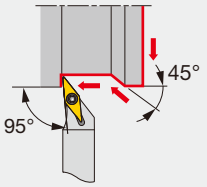
Designation	Clamping screw	Wrench
JSVNBN...	CSTB-2.5	T-8F

Reference pages

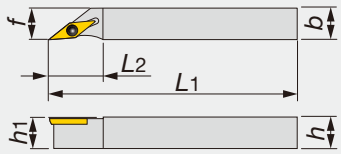
JSVNBN: Inserts → **B145 -**, CBN → **B169 -**

J-SERIES
JSVL2PR/L

Screw-on toolholder without offset with 95° approach angle for positive 35° rhombic inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JSVL2PR/L1010X08	10	10	120	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1010K08	10	10	125	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1212F08	12	12	85	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212F11	12	12	85	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212X08	12	12	120	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212X11	12	12	120	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212K08	12	12	125	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1616X08	16	16	120	16	16	16	0.2	VP**0802...	0.6
JSVL2PL1616K08	16	16	125	16	16	16	0.2	VP**0802...	0.6
JSVL2PR/L1616X11	16	16	120	21	16	16	0.2	VP**1103...	1.2

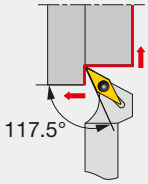
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

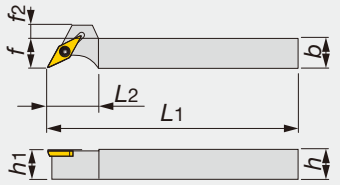
Designation	Clamping screw	Wrench
JSVL2PR/L**08	CSTB-2L	T-6F
JSVL2PR/L**11	CSTB-2.5	T-8F

J-SERIES
JSVP2PR/L

Screw-on toolholder without offset with 117.5° approach angle for positive 35° rhombic inserts



Cutting edge style **P2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*f*2	*r*ε**	Insert	Torque*
JSVP2PR/L1010K08	10	10	125	16	10	10	4	0.2	VP**0802...	0.6
JSVP2PR/L1010K11	10	10	125	20	10	10	8	0.2	VP**1103...	1.2
JSVP2PR/L1212K08	12	12	125	16	12	12	2	0.2	VP**0802...	0.6
JSVP2PR/L1212K11	12	12	125	20	12	12	6	0.2	VP**1103...	1.2
JSVP2PR/L1616K08	16	16	125	16	16	16	2	0.2	VP**0802...	0.6
JSVP2PR/L1616K11	16	16	125	20	16	16	6	0.2	VP**1103...	1.2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

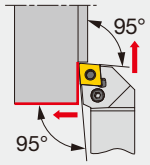
Designation	Clamping screw	Wrench
JSVP2PR/L**08	CSTB-2L	T-6F
JSVP2PR/L**11	CSTB-2.5	T-8F

Reference pages

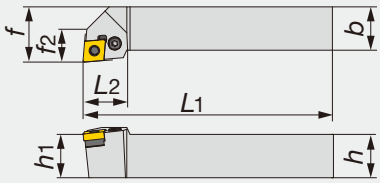
JSVL2PR/L, JSVP2PR/L: Inserts → **B149**

PCLNR

Lever lock type toolholder with 95° approach angle for negative 80° rhombic inserts



Cutting edge style **L**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PCLNR2020H12	20	20	100	26	20	25	18	0.8	CN**1204...	3

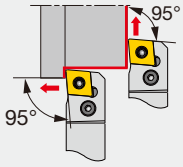
*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

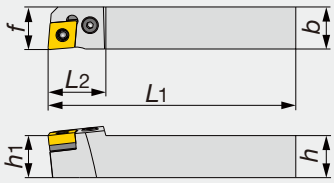
Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PCLNR2020H12	LSC42	LCS4	LCL4	LSP4	P-3

PCL2NR

Lever lock type toolholder without offset with 95° approach angle for negative 80° rhombic inserts



Cutting edge style **L2**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	rε**	Insert	Torque*
PCL2NR2020H12	20	20	100	26	20	20	0.8	CN**1204...	3

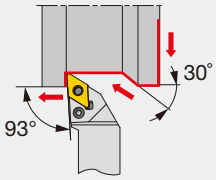
*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

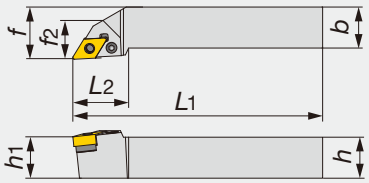
Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PCL2NR2020H12	LSC42	LCS4	LCL4	LSP4	P-3

PDJNR

Lever lock type toolholder with 93° approach angle for negative 55° rhombic inserts



Cutting edge style **J**



Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f2	rε**	Insert	Torque*
PDJNR2020H15	20	20	100	32	20	25	20	0.8	DN**1504...	3

*Torque: Recommended torque (N·m) for clamping
**rε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PDJNR2020H15	LSD42	LCS4	LCL4	LSP4	P-3

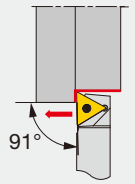
Reference pages

PCLNR, PCL2NR: Inserts → **B050 -**, CBN → **B163**

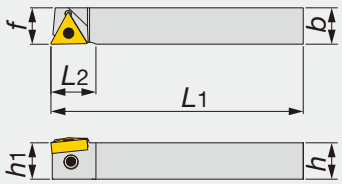
PDJNR: Inserts → **B061 -**, CBN → **B163**

J-SERIES
JTTANR/L

Back clamp toolholder without offset with 91° approach angle for negative 60° triangular inserts



Cutting edge style **A**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JTTANR/L1216K16	12	16	125	19.8	12	16	0.4	TN**1604...	1.2
JTTANR/L1616K16	16	16	125	19.8	16	16	0.4	TN**1604...	1.2

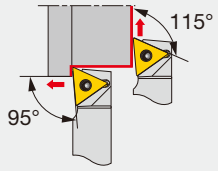
*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

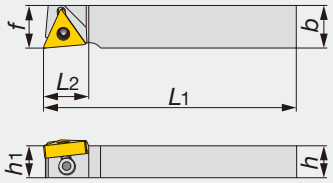
Designation	Clamp	Clamping screw	Wrench
JTTANR/L...	JCP-3N	JDS-5040	P-2.5F

J-SERIES
JTTLNR/L

Back clamp toolholder without offset with 95° approach angle for negative 60° triangular inserts



Cutting edge style **L**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	*L*1	*L*2	*h*1	*f*	*r*ε**	Insert	Torque*
JTTLNR/L1216F16	12	16	85	17	12	16	0.4	TN**1604...	1
JTTLNR/L1216X16	12	16	120	17	12	16	0.4	TN**1604...	1
JTTLNR/L1616X16	16	16	120	17	16	16	0.4	TN**1604...	1

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

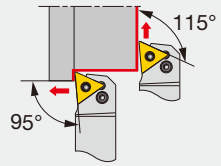
Designation	Clamp	Clamping screw	Wrench
JTTLNR/L...	JCP-3N	JDS-5040	P-2.5F

Reference pages

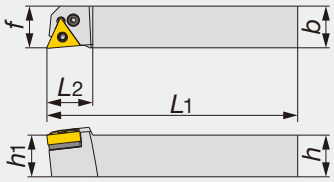
JTTANR/L, JTTLNR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176 -**

PTL2NR/L

Lever lock type toolholder without offset with 95° approach angle for negative 60° triangular inserts



Cutting edge style **L2**



Without offset

Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	h_1	*f*	r_ε**	Insert	Torque*
PTL2NR/L2020H16	20	20	100	22	20	20	0.4	TN**1604...	2

*Torque: Recommended torque (N·m) for clamping
**r_ε: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PTL2NR/L2020H16	LST317	LCS3	LCL3	LSP3	P-2.5

Miniature Tool

PARTS FOR COOLANT HOSE

Connecting hose

Fig. 1

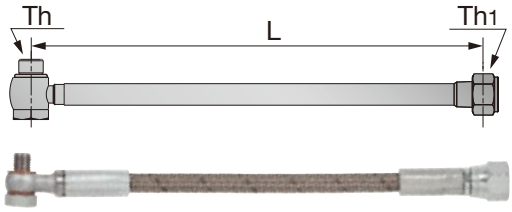
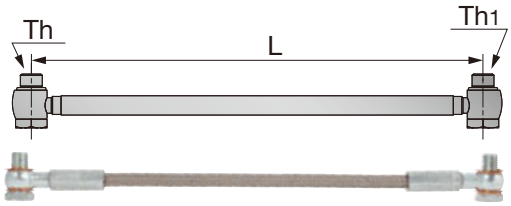
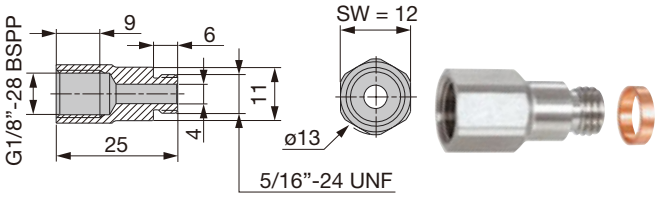


Fig. 2



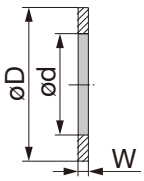
Designation	L	Th	Th1	Max. pressure (Mpa)	Fig.
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-5/16-7/16-200BS	200	5/16”-24UNF	7/16"-20 UNF	20	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16”-24UNF	G1/8"-28 BSPP	20	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2

Connector for small lathe with seal washer



Designation
CHP-CONECTOR/5/16-G1/8

Seal washer



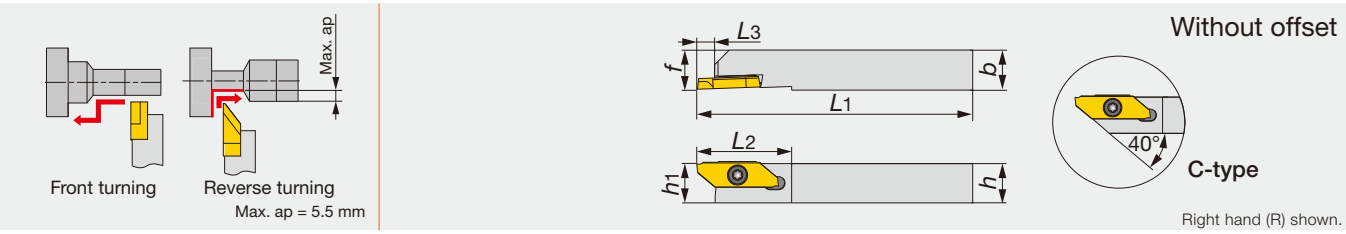
Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11	8	1
CHP-COPPER-SEAL5/16-2.5	11	8	2.5

Reference pages

PTL2NR/L: Inserts → **B080 -**, CBN → **B164 -**, PCD → **B176 -**

JSXGR/L

Screw-on toolholder without offset for front / reverse turning & external grooving



Designation	h	b	L1	L2	L3	h1	f	Insert
JSXGR/L1010K8-C	10	10	125	29	6.7	10	10	JXFR/L8..., JXRR/L8...
JSXGR/L1212K8-C	12	12	125	29	6.7	12	12	JXFR/L8..., JXRR/L8...
JSXGR/L1616K8	16	16	125	29	6.5	16	16	JXFR/L8..., JXRR/L8...
JSXGR/L2020K8	20	20	125	29	6.5	20	20	JXFR/L8..., JXRR/L8...
JSXGR/L2525K8	25	25	125	29	6.5	25	25	JXFR/L8..., JXRR/L8...

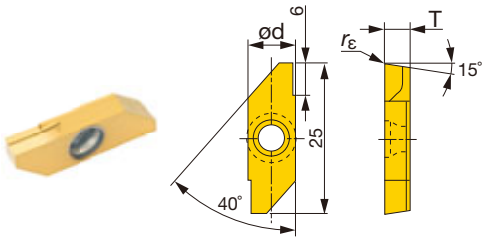
- Can be wrenched also from the back with a double-head screw.
- This toolholders can be used for JXF insert (front-turning), JXR insert (reverse-turning), JXG insert (grooving)

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSXGR/L...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXF (front turning, sharp edge)

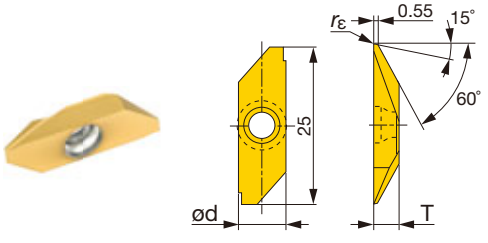


Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	Max. depth of cut
JXFR/L8000F	0.03	●		●		8	3.97	5.5
JXFR/L8010F	0.1	●		●		8	3.97	5.5

● : Line up

JXR (reverse turning, sharp edge)



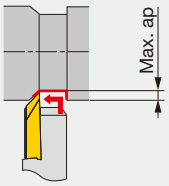
Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	Max. depth of cut
JXRR/L8000F	0.03	●		●		8	3.97	5.5
JXRR/L8010F	0.1	●		●		8	3.97	5.5

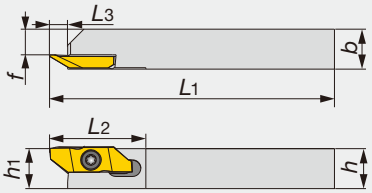
● : Line up

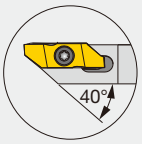
JSXBR/L

Screw-on toolholder for back turning and threading



Max. ap = 5.5 mm





C-type

Right hand (R) shown.

Designation	h	b	L_1	L_2	L_3	h_1	f	Insert
JSXBR/L1010K8-C	10	10	125	29	6.7	10	5.7	JXBR/L8..., JXT*R...
JSXBR/L1212K8-C	12	12	125	29	6.7	12	7.7	JXBR/L8..., JXT*R...
JSXBR/L1616K8	16	16	125	29	6.4	16	11.7	JXBR/L8..., JXT*R...
JSXBR/L2020K8	20	20	125	29	6.4	20	15.7	JXBR/L8..., JXT*R...
JSXBR/L2525K8	25	25	125	29	6.4	25	20.7	JXBR/L8..., JXT*R...

- Can be wrenched also from the back with a double-head screw.
- This toolholders can be used for JXB insert (back-turning), JXT insert (threading)

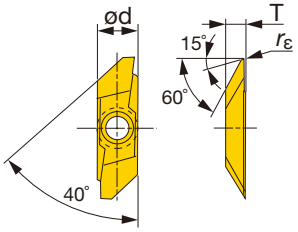
SPARE PARTS

Designation	Clamping screw	Wrench
JSXBR/L...	CSTB-4SD	T-8F

Miniature Tool

INSERT

JXB (sharp edge)

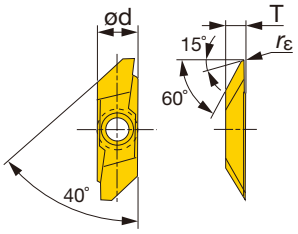


Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	Max. depth of cut
JXBR/L8000F	0.03	●	●	●	●	8	3.97	5.5
JXBR/L8005F	0.05	●	●	●	●	8	3.97	5.5
JXBR/L8010F	0.1	●	●	●	●	8	3.97	5.5
JXBR/L8015F	0.15	●	●	●	●	8	3.97	5.5

● : Line up

JXB (with horning)

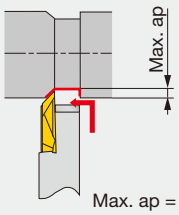


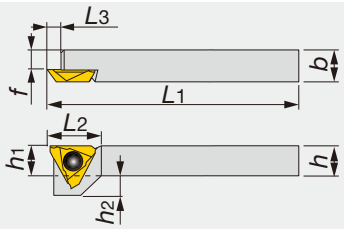
Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	ød	T	Max. depth of cut
JXBR/L8005	0.05	●	●	8	3.97	5.5
JXBR/L8010	0.1	●	●	8	3.97	5.5
JXBR/L8015	0.15	●	●	8	3.97	5.5

● : Line up

J-SERIES
JSTBR/L
Screw-on toolholder for back turning





Right hand (R) shown.

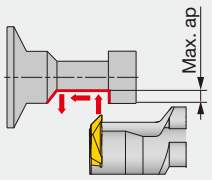
Designation	h	b	L1	L2	L3	h1	f	h2	Insert	Torque*
JSTBR/L1010X3	10	10	120	15	5	10	6	5	JTBR/L3...	1.2
JSTBL1010K3	10	10	125	15	5	10	6	5	JTBR/L3...	1.2
JSTBR/L1212F3	12	12	85	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1212X3	12	12	120	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1616X3	16	16	120	15	5	16	12	-	JTBR/L3...	1.2

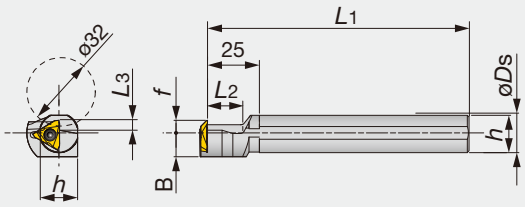
*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench
JSTBR/L...	CSTB-4SD	T-8F

J-SERIES
JS-TBL3
Screw-on toolholder for back turning





Designation	øDs	f	L1	L2	L3	h	B	Insert	Torque*
JS19K-TBL3	19.05	6	125	17	4.5	18	11.5	JTBR3...	3
JS20K-TBL3	20	6	125	17	4.5	19	11.5	JTBR3...	3
JS22K-TBL3	22	6	125	17	4.5	21	11.5	JTBR3...	3
JS25K-TBL3	25.4	10	125	17	4.5	24	12.7	JTBR3...	3

*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

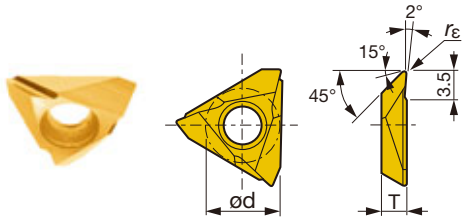
Designation	Clamping screw	Wrench
JS**-TBL3	CSTB-4S	T-15F

Reference pages

JSTBR/L, JS-TBL3: Inserts → **B348**, Standard cutting conditions → **B348**

INSERT

JTB (sharp edge)

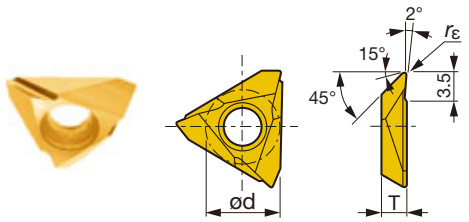


Right hand (R) shown.

Designation	rε	Coated				Cermet		Uncoated		ød	T	Max. depth of cut
		J740		SH725		NS9530		TH10				
		R	L	R	L	R	L	R	L			
JTBR/L3000F	0.03	●	●	●	●			●	●	9.438	3.18	2.5
JTBR/L3005F	0.05	●	●	●	●			●	●	9.438	3.18	2.5
JTBR/L3010F	0.1	●	●	●	●	●	●	●	●	9.438	3.18	2.5
JTBR/L3015F	0.15	●		●	●					9.438	3.18	2.5

● : Line up

JTB (with horning)



Right hand (R) shown.

Designation	rε	Coated		Coated cermet		ød	T	Max. depth of cut
		J740		J9530				
		R	L	R	L			
JTBR/L3005	0.05	●	●	●		9.438	3.18	2.5
JTBR/L3010	0.1	●	●	●		9.438	3.18	2.5

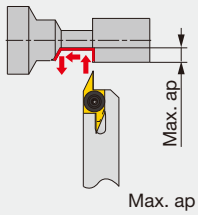
● : Line up

STANDARD CUTTING CONDITIONS (JTB type insert)

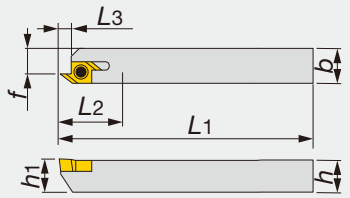
ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	General steel C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
	Free-cutting steel 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
M	Stainless steel X10CrNiS18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, Brass Si < 12% CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1

JSEGR/L

Screw-on toolholder for back turning



Max. ap = 3 mm



Designation	h	b	L1	L2	L3	h1	f	Insert	Torque*
JSEGR/L1010K10	10	10	125	-	3.3	10	7.5	J10ER/L...	1.2
JSEGR/L1212K10	12	12	125	-	3.3	12	9.5	J10ER/L...	1.2
JSEGR/L1616K10	16	16	125	-	3.3	16	13.5	J10ER/L...	1.2

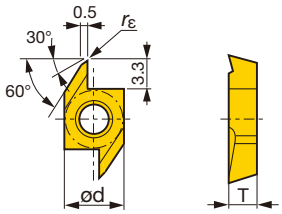
*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench
JSEGR/L...	CSTB-2.5	T-8F

INSERT

J10E (sharp edge)

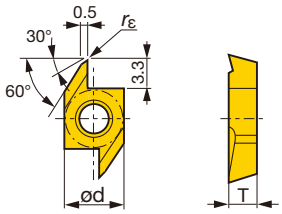


Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Coated SH725 R	Coated SH725 L	Cermet NS9530 R	Cermet NS9530 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	Max. depth of cut
J10ER/L005BF	0.05	●	●	●	●	●		●	●	6.35	3.18	3
J10ER/L010BF	0.1	●	●	●	●	●		●	●	6.35	3.18	3
J10ER/L015BF	0.15			●	●					6.35	3.18	3

● : Line up

J10E (with horning)



Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Coated cermet J9530 R	Coated cermet J9530 L	ød	T	Max. depth of cut
J10ER/L005B	0.05	●	●	●		6.35	3.18	3
J10ER/L010B	0.1	●	●	●		6.35	3.18	3

● : Line up

Reference pages

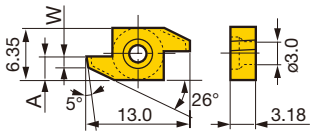
JSEGR/L: Inserts → **B349 -**, Standard cutting conditions → **B350**

STANDARD CUTTING CONDITIONS (J10E type insert)

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	General steel C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
	Free-cutting steel 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
M	Stainless steel X10CrNiS18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, Brass Si < 12% CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1

INSERT

10E (Insert blank)



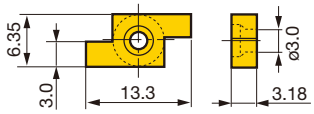
Right hand (R) shown.

Designation	Uncoated TH10 R	Uncoated TH10 L	W	A
10ER/L100B	●	●	1	2.5
10ER/L150B	●	●	1.5	3

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...).

10E (Insert blank)



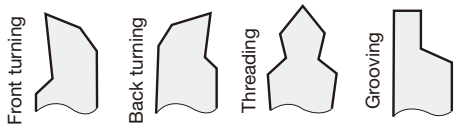
Right hand (R) shown.

Designation	Uncoated TH10 R	Uncoated TH10 L
10ER/L300	●	●

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...).

Formed examples of insert blanks



Notes:
- Front relief angle, side relief angle, edge width can be ground depending on the application.
- Insert blanks can be formed to a profiling tool which has a width up to 3 mm.

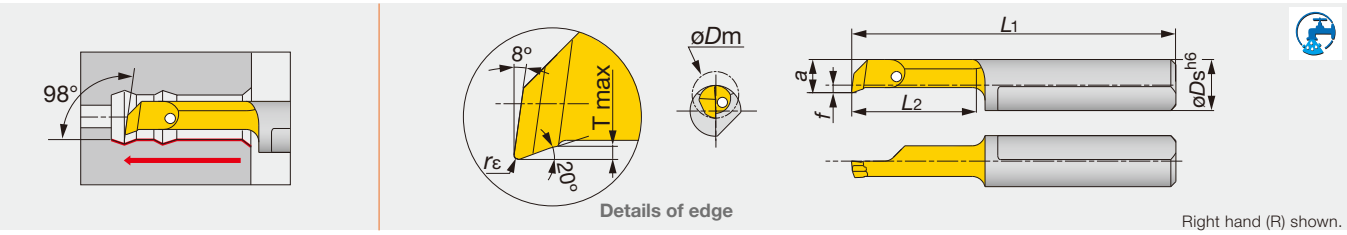
Standard cutting conditions

Operations	Workpiece material		Carbon steels	Stainless steels	Brass
Lateral feed (external turning)	Cutting speed (m/min)		~ 100	~ 50	~ 200
	Feed (mm/rev)	Roughing	~ 0.06	~ 0.03	~ 0.1
		Medium	~ 0.03	~ 0.025	~ 0.06
		Finishing	~ 0.02	~ 0.015	~ 0.04
Parting-off Grooving Forming	Cutting speed (m/min)		~ 80	~ 30	~ 150
	Feed (mm/rev)	Roughing	~ 0.02	~ 0.015	~ 0.05
		Medium	~ 0.015	~ 0.01	~ 0.03
		Finishing	~ 0.01	~ 0.008	~ 0.015

MEMO

JBT R/L

Solid boring bars for boring, profiling & chamfering



Designation	SH730	øDm	øDs	f	a	L1	L2	T max	$r_\varepsilon{}^{+0.05}_{0}$
JBTR04020004-D006	●	0.6	4	-	0.5	18.5	2	0.08	0.04
JBTR04030004-D006	●	0.6	4	-	0.5	19.5	3	0.08	0.04
JBTR04045005-D010	●	1	4	-	0.9	21	4.5	0.1	0.05
JBTR04065005-D010	●	1	4	-	0.9	23	6.5	0.1	0.05
JBTR04040005-D020	●	2	4	-	1.7	20.5	4	0.1	0.05
JBTR04090005-D020	●	2	4	-	1.7	25.5	9	0.1	0.05
JBTR04140005-D020	●	2	4	-	1.7	30.5	14	0.1	0.05
JBTR/L04090010-D028	●	3.5	4	0.6	2.6	25.5	9	0.2	0.1
JBTR/L04150010-D028	●	3.5	4	0.6	2.6	31.5	15	0.2	0.1
JBTR/L04190010-D028	●	3.5	4	0.6	2.6	35.5	19	0.2	0.1
JBTR/L04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBTR/L04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBTR/L04190010-D040	●	4	4	1.5	3.5	35.5	19	0.3	0.1
JBTR04230010-D040	●	4	4	1.5	3.5	39.5	23	0.3	0.1
JBTR04270010-D040	●	4	4	1.5	3.5	43.5	27	0.3	0.1
JBTR/L07090015-D050	●	5	7	0.9	4.4	25	9	0.5	0.15
JBTR/L07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
JBTR/L07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15
JBTR/L07240015-D050	●	5	7	0.9	4.4	40	24	0.5	0.15
JBTR/L07290015-D050	●	5	7	0.9	4.4	45	29	0.5	0.15
JBTR07340015-D050	●	5	7	0.9	4.4	50	34	0.5	0.15
JBTR/L07140015-D060	●	6	7	1.8	5.3	30	14	0.5	0.15
JBTR/L07210015-D060	●	6	7	1.8	5.3	37	21	0.5	0.15
JBTR/L07240015-D060	●	6	7	1.8	5.3	40	24	0.5	0.15
JBTR/L07290015-D060	●	6	7	1.8	5.3	45	29	0.5	0.15
JBTR07340015-D060	●	6	7	1.8	5.3	50	34	0.5	0.15
JBTR07410015-D060	●	6	7	1.8	5.3	57	41	0.5	0.15
JBTR/L07190015-D068	●	6.8	7	2.8	6.3	35	19	0.6	0.15
JBTR07240015-D068	●	6.8	7	2.8	6.3	40	24	0.6	0.15
JBTR/L07290015-D068	●	6.8	7	2.8	6.3	45	29	0.6	0.15
JBTR/L07340015-D070	●	7	7	2.8	6.3	50	34	0.6	0.15
JBTR07390015-D070	●	7	7	2.8	6.3	55	39	0.6	0.15
JBTR07440015-D070	●	7	7	2.8	6.3	60	44	0.6	0.15
JBTR07490015-D070	●	7	7	2.8	6.3	65	49	0.6	0.15

● : Line up

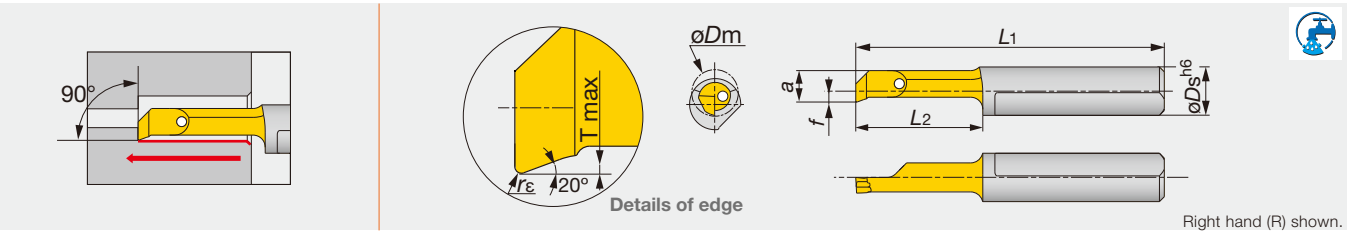
Reference pages

Standard cutting conditions → **B359**

TINYMINITURN

JBP R

Solid boring bars for boring & chamfering



Right hand (R) shown.

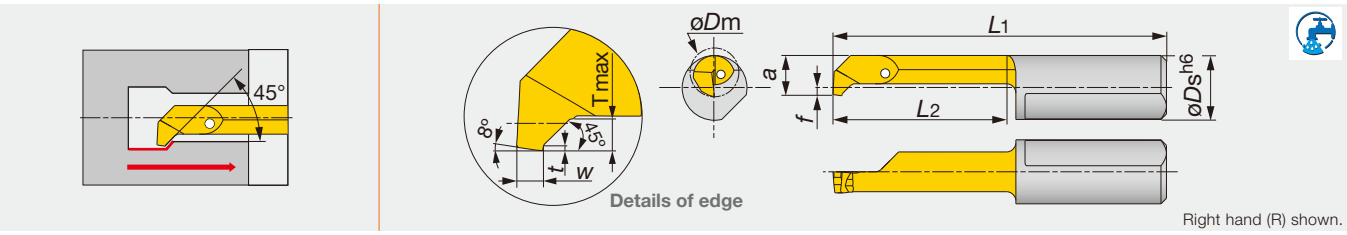
Designation	SH730	øDm	øDs	f	a	L1	L2	T max	$r_\varepsilon^{+0.05}_{0}$
JBPR04090010-D028	●	3.5	4	0.9	2.6	25.5	9	0.2	0.1
JBPR04150010-D028	●	3.5	4	0.9	2.6	31.5	15	0.2	0.1
JBPR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
JBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

● : Line up

TINYMINITURN

JBU R

Solid boring bars for back boring & chamfering



Right hand (R) shown.

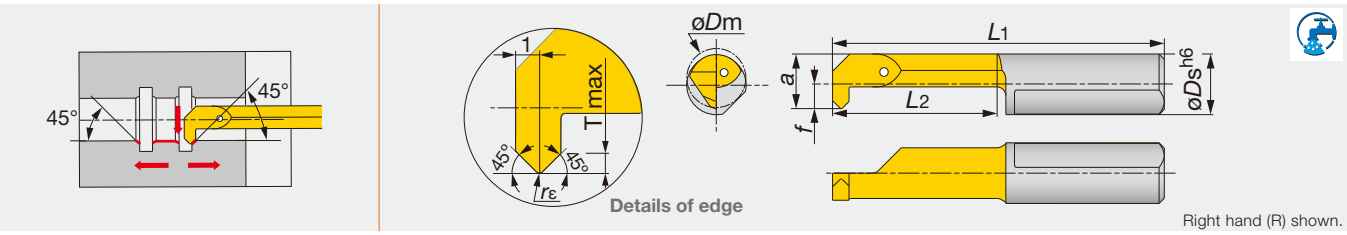
Designation	SH730	øDm	øDs	f	a	L1	L2	t	T max	$W^{+0.05}_{0}$
JBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1
JBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1

● : Line up

TINYMINITURN

JBC R

Solid boring bars for Boring & 45° chamfering



Right hand (R) shown.

Designation	SH730	øDm	øDs	f	a	L1	L2	T max	$r_\varepsilon^{\pm0.05}$
JBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
JBCR07190020-D050	●	5	7	0.9	4.4	35	19	0.7	0.2
JBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

● : Line up

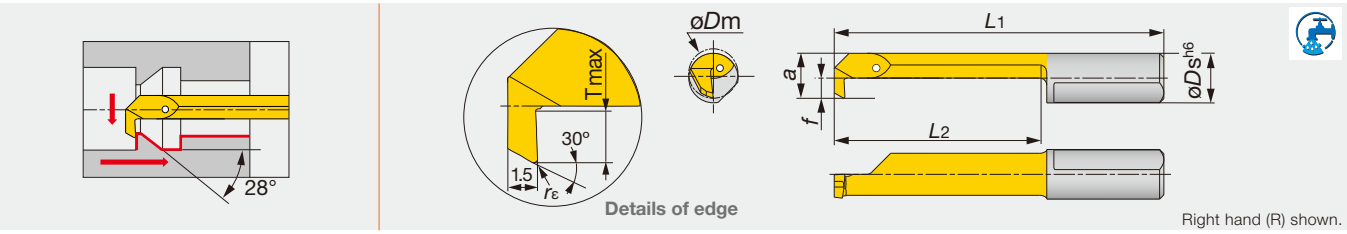
Reference pages

Standard cutting conditions → **B359**

TINYMINITURN

JBB R

Solid boring bars for back boring



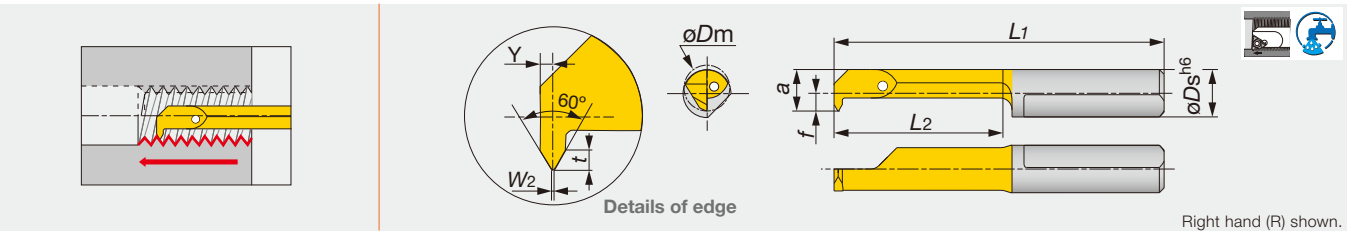
Designation	SH730	øDm	øDs	f	a	L1	L2	T max	rε +0.05
JBBR04140020-D030	●	3	4	0.6	2.6	30	14	0.5	0.2
JBBR04190020-D030	●	3	4	0.6	2.6	35	19	0.5	0.2
JBBR04140015-D040	●	4	4	1.5	3.5	30	14	0.8	0.15
JBBR04240015-D040	●	4	4	1.5	3.5	40	24	0.8	0.15
JBBR07190020-D050	●	5	7	0.9	4.4	35	19	1	0.2
JBBR07290020-D050	●	5	7	0.9	4.4	45	29	1	0.2
JBBR07190020-D060	●	6	7	1.8	5.3	35	19	1.8	0.2
JBBR07290020-D060	●	6	7	1.8	5.3	45	29	1.8	0.2
JBBR07190020-D070	●	7	7	2.8	6.3	35	19	2.5	0.2
JBBR07290020-D070	●	7	7	2.8	6.3	45	29	2.5	0.2

● : Line up

TINYMINITURN

JBI R

Solid boring bars for threading (metric)



Designation	SH730	Pitch	øDm	W2 -0 0.02	øDs	f	a	L1	L2	t	Y
JBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	1.25	6	0.15	7	1.8	5.3	30	14	0.7	0.65
JBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75
JBIR07140150-D070	●	1.5	7	0.18	7	2.8	6.3	30	14	0.8	0.75

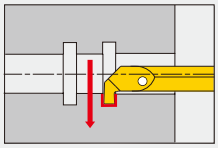
● : Line up

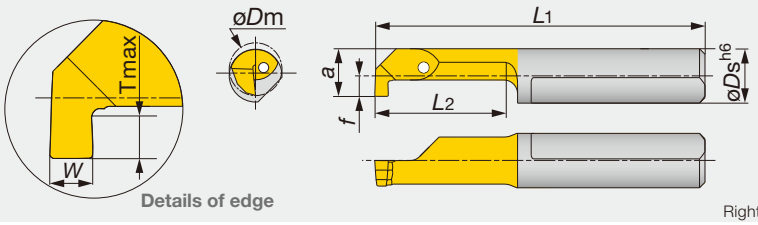
Reference pages

Standard cutting conditions → **B359**

JBG R/L

Solid boring bars for internal grooving





Right hand (R) shown.

Designation	SH730	$W^{+0.05}_{0}$	øDm	øDs	f	a	L1	L2	T max
JBGR04050050-D020	●	0.5	2	4	0.2	1.8	21	5	0.4
JBGR04100050-D020	●	0.5	2	4	0.2	1.8	26	10	0.4
JBGR04050070-D030	●	0.7	3	4	0.7	2.7	21	5	0.6
JBGR04100070-D030	●	0.7	3	4	0.7	2.7	26	10	0.6
JBGR04090100-D040	●	1	4	4	1.5	3.5	25.5	9	0.8
JBGR04150100-D040	●	1	4	4	1.5	3.5	31.5	15	0.8
JBGR07090100-D050	●	1	5	7	0.9	4.4	25	9	1
JBGR07140100-D050	●	1	5	7	0.9	4.4	30	14	1
JBGR07090150-D050	●	1.5	5	7	0.9	4.4	25	9	1
JBGR07140150-D050	●	1.5	5	7	0.9	4.4	30	14	1
JBGR07090200-D050	●	2	5	7	0.9	4.4	25	9	1
JBGR07190200-D050	●	2	5	7	0.9	4.4	35	19	1
JBGR/L07090100-D060	●	1	6	7	1.8	5.3	25	9	1.8
JBGR07140100-D060	●	1	6	7	1.8	5.3	30	14	1.8
JBGR07210100-D060	●	1	6	7	1.8	5.3	37	21	1.8
JBGR07290100-D060	●	1	6	7	1.8	5.3	45	29	1.8
JBGR/L07090150-D060	●	1.5	6	7	1.8	5.3	25	9	1.8
JBGR07140150-D060	●	1.5	6	7	1.8	5.3	30	14	1.8
JBGR07210150-D060	●	1.5	6	7	1.8	5.3	37	21	1.8
JBGR07240150-D060	●	1.5	6	7	1.8	5.3	40	24	1.8
JBGR07290150-D060	●	1.5	6	7	1.8	5.3	45	29	1.8
JBGR07090200-D060	●	2	6	7	1.8	5.3	25	9	1.8
JBGR07140200-D060	●	2	6	7	1.8	5.3	30	14	1.8
JBGR07210200-D060	●	2	6	7	1.8	5.3	37	21	1.8
JBGR07240200-D060	●	2	6	7	1.8	5.3	40	24	1.8
JBGR07290200-D060	●	2	6	7	1.8	5.3	45	29	1.8
JBGR07090100-D068	●	1	6.8	7	2.7	6.2	25	9	2.5
JBGR07140100-D068	●	1	6.8	7	2.7	6.2	30	14	2.5
JBGR07210100-D068	●	1	6.8	7	2.7	6.2	37	21	2.5
JBGR07090150-D068	●	1.5	6.8	7	2.7	6.2	25	9	2.5
JBGR07140150-D068	●	1.5	6.8	7	2.7	6.2	30	14	2.5
JBGR07210150-D068	●	1.5	6.8	7	2.7	6.2	37	21	2.5
JBGR07290150-D068	●	1.5	6.8	7	2.7	6.2	45	29	2.5
JBGR07090200-D068	●	2	6.8	7	2.7	6.2	25	9	2.5
JBGR/L07140200-D068	●	2	6.8	7	2.7	6.2	30	14	2.5
JBGR07210200-D068	●	2	6.8	7	2.7	6.2	37	21	2.5
JBGR07250200-D068	●	2	6.8	7	2.7	6.2	40	25	2.5
JBGR07290200-D068	●	2	6.8	7	2.7	6.2	45	29	2.5

* Corner radius : less than 0.1 mm.

● : Line up

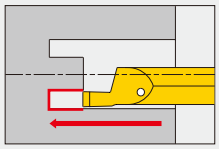
Reference pages

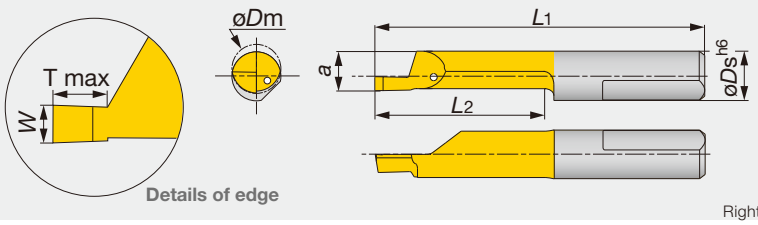
Standard cutting conditions → **B360**

TINYMTURN

JBF R/L

Solid boring bars for face grooving





Right hand (R) shown.

Designation	SH730	$W^{+0.05}_{0}$	øDm	øDs	a	L1	L2	T max
JBFR07110100-D060	●	1	6	7	5.2	26	10	1.5
JBFR07110150-D060	●	1.5	6	7	5.2	26	10	2
JBFR07110200-D060	●	2	6	7	5.2	26	10	3
JBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
JBFR07110150-D080	●	1.5	8	7	5.9	27	11	2.5
JBFR07110200-D080	●	2	8	7	5.9	27	11	3
JBFR07110250-D080	●	2.5	8	7	5.9	27	11	3.5
JBFR07110300-D080	●	3	8	7	5.9	27	11	3.5
JBFR/L07210150-D080	●	1.5	8	7	5.9	36	21	2.5
JBFR07210200-D080	●	2	8	7	5.9	36	21	3
JBFR07210250-D080	●	2.5	8	7	5.9	36	21	3.5
JBFR07210300-D080	●	3	8	7	5.9	36	21	3.5
JBFR/L07300200-D080	●	2	8	7	5.9	46	30	3
JBFR07300300-D080	●	3	8	7	5.9	46	30	3.5
JBFR07200200-D080	●	2	8	7	5.9	36	20	3
JBFR07200250-D150	●	2.5	15	7	5.9	36	20	20
JBFR07200300-D150	●	3	15	7	5.9	36	20	20
JBFR07300300-D150	●	3	15	7	5.9	46	30	30

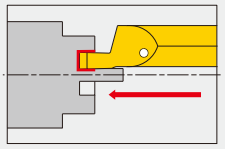
* Corner radius : less than 0.1 mm.

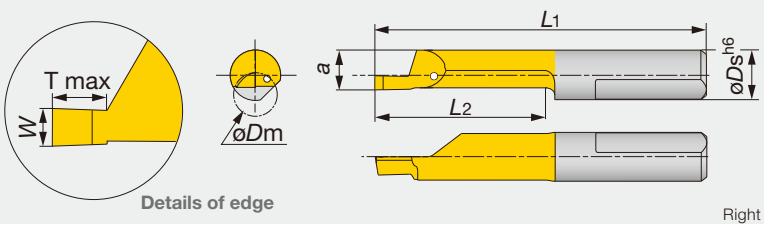
● : Line up

TINYMTURN

JBS R

Solid boring bars for face grooving (for shaft machining)





Right hand (R) shown.

Designation	SH730	$W^{+0.05}_{0}$	øDm	øDs	a	L1	L2	T max
JBSR07200200-D060	●	2	6	7	5.2	36	20	4

* Corner radius : less than 0.1 mm.

● : Line up

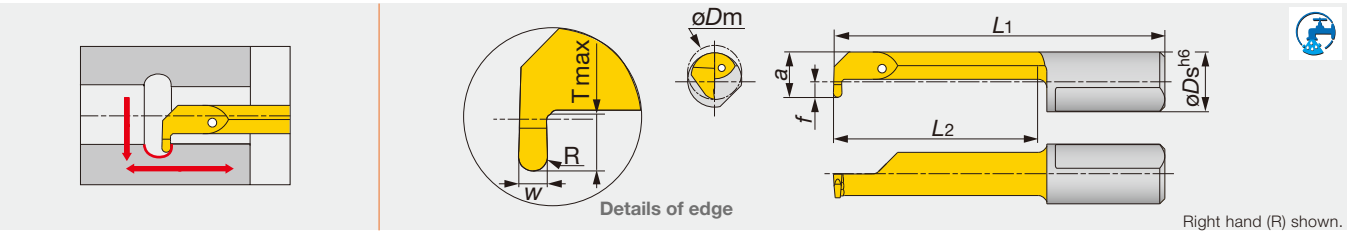
Reference pages

Standard cutting conditions → **B360**

TINYMTURN

JBR R

Solid boring bars for Boring & profiling (full radius type)



Right hand (R) shown.

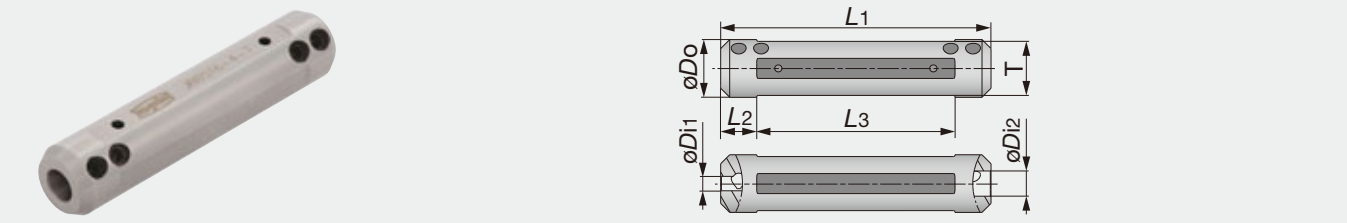
Designation	SH730	$W^{+0.05}_{0}$	øDm	øDs	f	a	L1	L2	T max	R
JBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
JBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
JBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : Line up

TINYMTURN

JBBS

Sleeve for external coolant supply



Designation	øDo	øDi1	øDi2	L1	L2	L3	T
JBBS12-4-4	12	4	4	75	10	55	10.3
JBBS127-4-4	12.7	4	4	76.2	10	56.2	11.6
JBBS14-4-4	14	4	4	75	10	55	12
JBBS159-4-7	15.875	4	7	76.2	10	56.2	14
JBBS16-4-7	16	4	7	75	10	55	15
JBBS19-4-7	19.05	4	7	89	10	69	17.2
JBBS20-4-7	20	4	7	90	10	70	18
JBBS22-4-7	22	4	7	90	10	70	20
JBBS25-4-7	25	4	7	100	10	80	23
JBBS254-4-7	25.4	4	7	90	10	70	23.4

SPARE PARTS

Designation	Clamping screw	Wrench
JBBS12-4-4	SSHM5-4PF-S	P-2.5
JBBS127-4-4	SSHM5-6PF-S	P-2.5
JBBS14-4-4	SSHM5-4PF-S	P-2.5
JBBS**-4-7	SSHM5-6PF-S	P-2.5

Miniature Tool

Reference pages

Standard cutting conditions → **B359**

JBBS-C

Sleeve for internal coolant supply

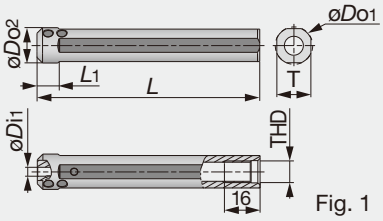


Fig. 1

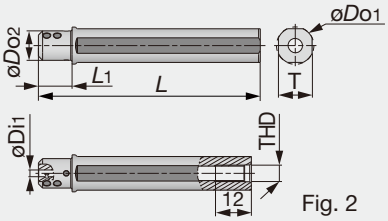


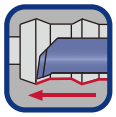
Fig. 2

Designation	øDo1	øDo2	øDi1	L	L1	T	THD	Fig.
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	R1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	R1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	R1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	R1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	R1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	R1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	R1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	R1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	R1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	R1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	R1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	R1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	R1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	R1/8	2

SPARE PARTS

Designation	Clamping screw	Wrench
JBBS**-4-L100C	SSHM5-6PF-S	P-2.5
JBBS**-7-L100C	SSHM5-4PF-S	P-2.5

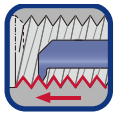
STANDARD CUTTING CONDITIONS



Boring, profiling, chamfering, back boring

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steels C15, C25, etc.	SH730	40 - 140	0.01 - 0.08 *
	Carbon steels, Alloy steels C55, 42CrMoS4, etc.	SH730	40 - 140	0.01 - 0.08 *
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.08 *
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.08 *
K	Grey cast irons 250, 300, etc.	SH730	30 - 100	0.01 - 0.08 *
	Ductile cast irons 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.08 *
N	Aluminium alloys, copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.08 *
S	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.08 *
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.08 *

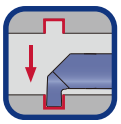
* JBTR/L04020004-D006,
JBTR/L04030004-D006
Max. *f* = 0.01 mm/rev



Threading (metric thread)

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Number of passes Pitch (mm) 0.5	0.75	1	1.25	1.5
P	Low carbon steels C15, C25, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Carbon steels, Alloy steels C55, 42CrMoS4, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	8	10	12	15	18
K	Grey cast irons 250, 300, etc.	SH730	30 - 100	7	9	12	14	17
	Ductile cast irons 400-15, 600-3, etc.	SH730	30 - 100	7	9	12	14	17
N	Aluminium alloys, copper alloys Si < 12%	SH730	90 - 200	6	8	10	12	15

STANDARD CUTTING CONDITIONS



Internal grooving

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steels C15, C25, etc.	SH730	40 - 140	0.01 - 0.03
	Carbon steels, Alloy steels C55, 42CrMoS4, etc.	SH730	40 - 140	0.01 - 0.03
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.03
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.03
K	Grey cast irons 250, 300, etc.	SH730	30 - 100	0.01 - 0.03
	Ductile cast irons 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.03
N	Aluminium alloys, copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.03
S	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.03
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.03

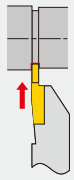
Face grooving

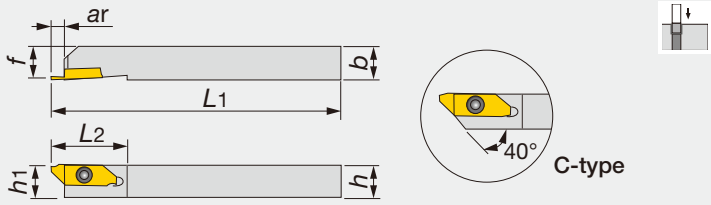
ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steels C15, C25, etc.	SH730	40 - 140	0.01 - 0.05
	Carbon steels, Alloy steels C55, 42CrMoS4, etc.	SH730	40 - 140	0.01 - 0.05
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.05
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.05
K	Grey cast irons 250, 300, etc.	SH730	30 - 100	0.01 - 0.05
	Ductile cast irons 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.05
N	Aluminium alloys, copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.05
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.05

MEMO

JSXGR/L

Screw-on toolholder without offset for front / reverse turning & external grooving





Right hand (R) shown.

Designation	W	ar	h	b	L_1	L_2	h_1	f	Insert
JSXGR/L1010K8-C	0.7 - 2	6.7	10	10	125	29	10	10	JX*R/L8...
JSXGR/L1212K8-C	0.7 - 2	6.7	12	12	125	29	12	12	JX*R/L8...
JSXGR/L1616K8	0.7 - 2	6.5	16	16	125	29	16	16	JX*R/L8...
JSXGR/L2020K8	0.7 - 2	6.5	20	20	125	29	20	20	JX*R/L8...
JSXGR/L2525K8	0.7 - 2	6.5	25	25	125	29	25	25	JX*R/L8...

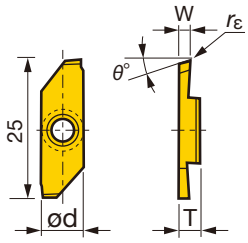
- Can be wrenched also from the back with a double-head screw.
- This toolholders can be used for JXG insert (grooving), JXF insert (front-turning), JXK insert (reverse-turning).

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSXGR/L...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXG (handed insert with sharp edge)



Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	$W^{+0.05}_{0}$	θ°	Max. groove depth
JXGR/L8070FA	0	●	●	●	●	8	3.97	0.7	15	4.5
JXGR/L8070FA-005	0.05	●				8	3.97	0.7	15	4.5
JXGR/L8100FA	0	●	●	●	●	8	3.97	1	15	6
JXGR/L8100FA-005	0.05	●				8	3.97	1	15	6
JXGR/L8100FA45	0	●		●		8	3.97	1	15	4.5
JXGR/L8100FA45-005	0.05	●				8	3.97	1	15	4.5
JXGR/L8150FA	0	●	●	●	●	8	3.97	1.5	15	6
JXGR/L8150FA-005	0.05	●				8	3.97	1.5	15	6
JXGR/L8150FA50	0	●		●		8	3.97	1.5	15	5
JXGR/L8150FA50-005	0.05	●				8	3.97	1.5	15	5
JXGR/L8180FA	0	●		●		8	3.97	1.8	15	6
JXGR/L8180FA-005	0.05	●				8	3.97	1.8	15	6
JXGR/L8200FA	0	●	●	●	●	8	3.97	2	15	6
JXGR/L8200FA-005	0.05	●				8	3.97	2	15	6
JXGR/L8200FN	0	●	●	●	●	8	3.97	2	0	6
JXGR/L8200FN-005	0.05	●				8	3.97	2	0	6

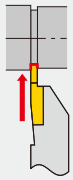
● : Line up

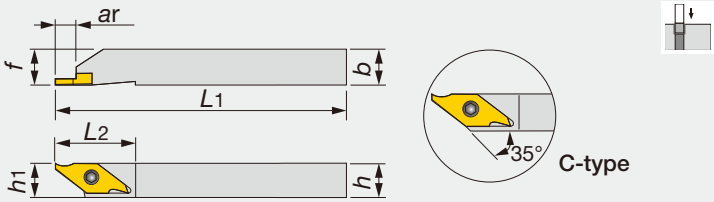
Reference pages

Standard cutting conditions → **B364**

JSVGR/L

External grooving toolholders





Right hand (R) shown.

Designation	W	ar	h	b	L_1	L_2	h_1	f	Insert
JSVGR/L1010K-C	0.33 - 2	6.2	10	10	125	23	10	10	JVGR/L...
JSVGR/L1212K-C	0.33 - 2	6.2	12	12	125	23	12	12	JVGR/L...
JSVGR/L1616K	0.33 - 2	6.2	16	16	125	23	16	16	JVGR/L...

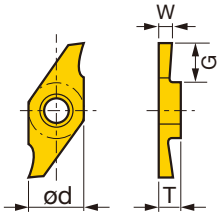
• Recommend clamping torque: 2.3 N·m

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSVGR/L...	CSTB-3S	T-9F	(T-8L)

INSERT

JVG (handed insert with sharp edge)



Right hand (R) shown.

Designation	Coated				Cermet		Uncoated		ød	T	$W^{+0.05}_{0}$	G	Max. groove depth
	SH725		J740		NS9530		TH10						
	R	L	R	L	R	L	R	L					
JVGR/L033F	●	●	●				●		7.94	3.18	0.33	0.8	0.7
JVGR/L050F	●	●	●				●		7.94	3.18	0.5	1.2	1.1
JVGR/L075F	●	●	●				●		7.94	3.18	0.75	2	1.9
JVGR/L095F	●	●	●				●		7.94	3.18	0.95	2	1.9
JVGR/L100F	●	●	●		●	●	●	●	7.94	3.18	1	6	5.5
JVGR/L125F	●	●	●				●		7.94	3.18	1.25	5.5	5
JVGR/L150F	●	●	●		●	●	●	●	7.94	3.18	1.5	6	5.5
JVGR/L200F	●	●	●		●		●		7.94	3.18	2	6	5.5

● : Line up

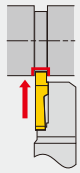
Reference pages

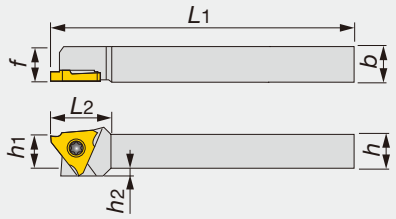
Standard cutting conditions → **B364**

STANDARD CUTTING CONDITIONS (JXG type, JVG type insert)

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	General steel C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
	Free-cutting steel 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
M	Stainless steel X10CrNiS18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, Brass Si < 12% CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1

J-SERIES
JSTGR/L
External grooving toolholders





Right hand (R) shown.

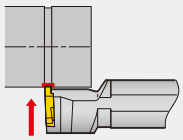
Designation	W	h	b	L1	L2	h1	f	h2	Insert
JSTGR/L1010X3	0.33 - 3	10	10	120	18.5	10	10	2	JTGR/L3...
JSTGR/L1212F3	0.33 - 3	12	12	85	18.5	12	12	-	JTGR/L3...
JSTGR/L1212X3	0.33 - 3	12	12	120	18.5	12	12	-	JTGR/L3...
JSTGR/L1616X3	0.33 - 3	16	16	120	18.5	16	16	-	JTGR/L3...
JSTGL1616K3	0.33 - 3	16	16	125	18.5	16	16	-	JTGR/L3...

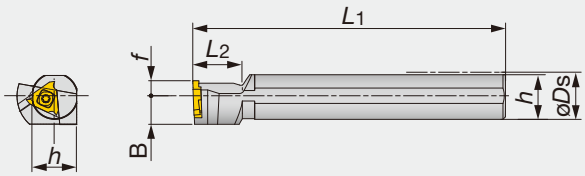
• Recommend clamping torque: 1.2 N·m

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)

J-SERIES
JS-TGL3
External grooving toolholders





Left hand (L) shown.

Designation	W	øDs	f	L1	L2	h	B	Insert
JS19K-TGL3	0.33 - 3	19.05	6	125	20	18	11.5	JTGR3...
JS20K-TGL3	0.33 - 3	20	6	125	20	19	11.5	JTGR3...
JS22K-TGL3	0.33 - 3	22	6	125	20	21	11.5	JTGR3...
JS25K-TGL3	0.33 - 3	25.4	10	125	20	24	12.7	JTGR3...

• Left hand toolholders (TGL3) are used with right hand inserts (JTGR3). • Recommend clamping torque: 3.0 N·m

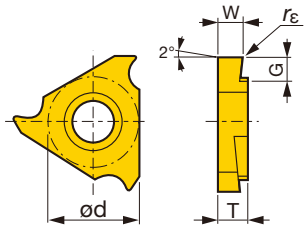
SPARE PARTS

Designation	Clamping screw	Wrench
JS**-TGL3	CSTB-4S	T-15F

Reference pages

JSTGR/L, JS-TGL3: Inserts → **B366 -**, Standard cutting conditions → **B367**

JTG (sharp edge)

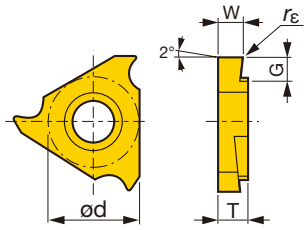


Right hand (R) shown.

Designation	$W^{+0.05}_{0}$	rε	Coated SH725 R	Coated SH725 L	Coated J740 R	Coated J740 L	Cermet NS9530 R	Cermet NS9530 L	Uncoated TH10 R	Uncoated TH10 L	ød	T	G	Max. groove depth
JTGR/L3033F	0.33	0.03	●		●	●			●	●	9.525	3.18	0.8	0.7
JTGR/L3033F-005	0.33	0.05	●								9.525	3.18	0.8	0.7
JTGR/L3043F	0.43	0.03			●						9.525	3.18	1.2	1.1
JTGR/L3050F	0.5	0.03	●	●	●	●	●		●	●	9.525	3.18	1.2	1.1
JTGR/L3050F-005	0.5	0.05	●	●							9.525	3.18	1.2	1.1
JTGR/L3065F	0.65	0.03	●		●						9.525	3.18	2	1.9
JTGR/L3065F-010	0.65	0.1	●								9.525	3.18	2	1.9
JTGR/L3075F	0.75	0.03	●	●	●	●	●	●	●	●	9.525	3.18	2	1.9
JTGR/L3075F-010	0.75	0.1	●	●							9.525	3.18	2	1.9
JTGR/L3080F	0.8	0.03	●		●						9.525	3.18	2	1.9
JTGR/L3080F-010	0.8	0.1	●								9.525	3.18	2	1.9
JTGR/L3085F	0.85	0.03	●		●						9.525	3.18	2	1.9
JTGR/L3095F	0.95	0.03	●	●	●	●	●		●	●	9.525	3.18	2	1.9
JTGR/L3095F-010	0.95	0.1	●	●							9.525	3.18	2	1.9
JTGR/L3100F	1	0.05	●	●	●	●	●		●	●	9.525	3.18	2.2	2.1
JTGR/L3100F-010	1	0.1	●	●							9.525	3.18	2.2	2.1
JTGR/L3110F	1.1	0.05	●		●						9.525	3.18	2.2	2.1
JTGR/L3120F	1.2	0.05	●		●						9.525	3.18	2.2	2.1
JTGR/L3120F-010	1.2	0.1	●								9.525	3.18	2.2	2.1
JTGR/L3125F	1.25	0.05	●	●	●	●	●		●	●	9.525	3.18	2.2	2.1
JTGR/L3125F-010	1.25	0.1	●	●							9.525	3.18	2.2	2.1
JTGR/L3130F	1.3	0.05	●		●						9.525	3.18	2.2	2.1
JTGR/L3140F	1.4	0.05	●		●						9.525	3.18	2.2	2.1
JTGR/L3140F-010	1.4	0.1	●								9.525	3.18	2.2	2.1
JTGR/L3145F	1.45	0.05	●		●	●	●		●	●	9.525	3.18	2.2	2.1
JTGR/L3145F-010	1.45	0.1	●								9.525	3.18	2.2	2.1
JTGR/L3150F	1.5	0.05	●	●	●	●	●		●	●	9.525	3.18	2.2	2.1
JTGR/L3150F-010	1.5	0.1	●	●							9.525	3.18	2.2	2.1
JTGR/L3175F	1.75	0.05	●		●	●	●	●	●	●	9.525	3.18	2.2	2.1
JTGR/L3175F-010	1.75	0.1	●								9.525	3.18	2.2	2.1
JTGR/L3180F	1.8	0.05	●		●						9.525	3.18	2.2	2.1
JTGR/L3200F	2	0.05	●	●	●	●	●		●	●	9.525	3.18	2.7	2.6
JTGR/L3200F-010	2	0.1	●	●							9.525	3.18	2.7	2.6
JTGR/L3225F	2.25	0.05	●		●						9.525	3.18	2.7	2.6
JTGR/L3250F	2.5	0.05	●	●	●	●	●		●	●	9.525	3.18	2.7	2.6
JTGR/L3250F-010	2.5	0.1	●	●							9.525	3.18	2.7	2.6
JTGR/L3275F	2.75	0.05			●						9.525	3.18	2.7	2.6
JTGR/L3300F	3	0.05	●		●						9.525	3.18	2.7	2.6
JTGR/L3300F-010	3	0.1	●								9.525	3.18	2.7	2.6

● : Line up

JTG (with horning)



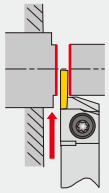
Right hand (R) shown.

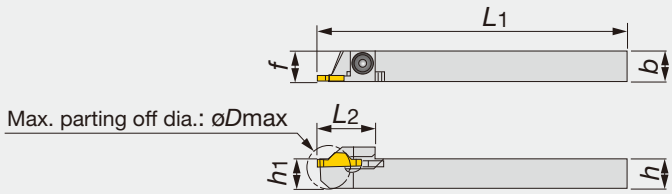
Designation	rε	Coated cermet J9530 R	Coated cermet J9530 L	ød	T	$W^{+0.05}_{0}$	G	Max. groove depth
JTGR/L3100	0.05	●		9.525	3.18	1	2.2	2.1
JTGR/L3125	0.05	●		9.525	3.18	1.25	2.2	2.1
JTGR/L3150	0.05	●		9.525	3.18	1.5	2.2	2.1
JTGR/L3200	0.05	●		9.525	3.18	2	2.7	2.6

● : Line up

STANDARD CUTTING CONDITIONS (JTG type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	General steel C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
	Free-cutting steel 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
M	Stainless steel X10CrNiS18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, Brass Si < 12% CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1





Right hand (R) shown.

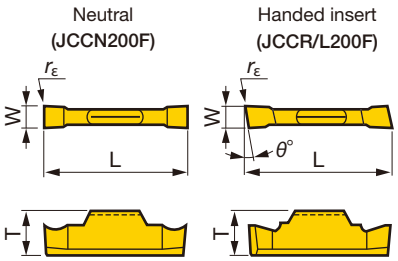
Designation	W	øDmax	h	b	L1	L2	h1	f	Insert
JCCWSR/L1010K2	2	20	10	10	125	19	10	10	JCC*200F...
JCCWSR/L1212K2	2	20	12	12	125	19	12	12	JCC*200F...
JCCWSR/L1616K2	2	20	16	16	125	19	16	16	JCC*200F...
JCCWSR/L2020K2	2	20	20	20	125	19	20	20	JCC*200F...
JCCWSR/L2525K2	2	20	25	25	125	19	25	25	JCC*200F...

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JCCWSR/L...	CSTB-4S	T-15F	(T-15L)

INSERT

JCC (sharp edge)

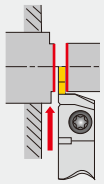


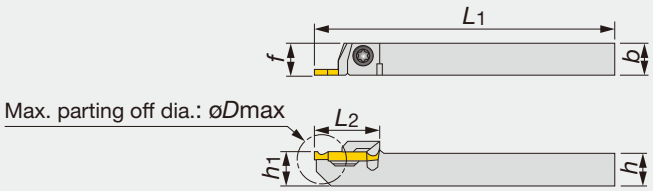
Right hand (R) shown.

Designation	rε	Coated J740 R	Coated J740 N	Coated J740 L	Uncoated TH10 R	Uncoated TH10 N	Uncoated TH10 L	T	W	L	θ°
JCCN200F	0		●			●		4.8	2	15	-
JCCN200F-005	0.05		●					4.8	2	15	-
JCCR/L200F	0	●		●	●		●	4.8	2	15	15
JCCR/L200F-005	0.05	●		●				4.8	2	15	15

● : Line up

Reference pages
Standard cutting conditions → **B369**





Right hand (R) shown.

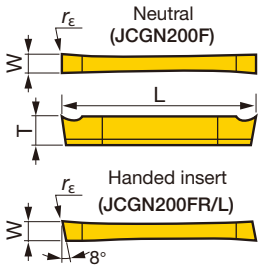
Designation	W	øDmax	h	b	L1	L2	h1	f	Insert
JCGWSR/L1010K2	2	20	10	10	125	20	10	10	JCGN200F...
JCGWSR/L1212K2	2	20	12	12	125	20	12	12	JCGN200F...
JCGWSR/L1616K2	2	20	16	16	125	20	16	16	JCGN200F...

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JCGWSR/L...	CSTB-4S	T-15F	(T-15L)

INSERT

JCG (sharp edge)



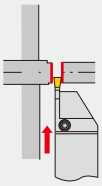
Right hand (R) shown.

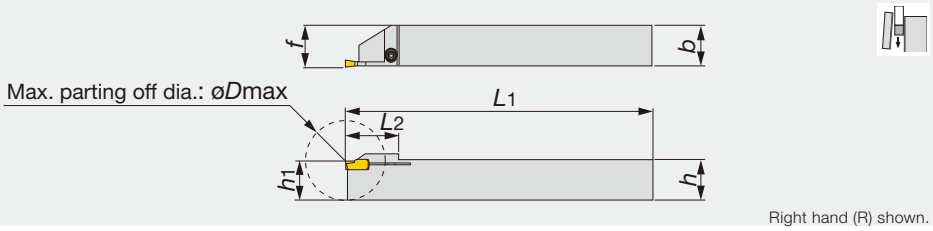
Designation	rε	Coated J740 R	Coated J740 N	Coated J740 L	Uncoated TH10 R	Uncoated TH10 N	Uncoated TH10 L	T	W	L
JCGN200F	0.05		●			●		3	2	20
JCGN200FR/L	0.05	●		●	●		●	3	2	20

● : Line up

STANDARD CUTTING CONDITIONS (JCC type, JCG type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	General steel C45, etc.	J740	10 - 100	0.01 - 0.1
P	Free-cutting steel 11SMn28, etc.	J740	10 - 100	0.01 - 0.1
M	Stainless steel X10CrNiS18-9, etc.	J740	10 - 100	0.01 - 0.1
N	Aluminium alloys, Brass Si < 12% CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1





Designation	W	øDmax	h	b	L1	L2	h1	f	Insert
JCGSSR/L1010-20	2	20	10	10	125	15	10	10.2	GE20...
JCGSSR/L1212-20	2	25	12	12	125	19	12	12.2	GE20...
JCGSSR/L1616-20	2	32	16	16	125	22.5	16	16.2	GE20...

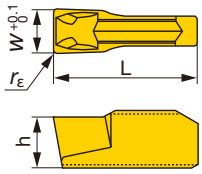
SPARE PARTS

Designation	Clamping screw	Wrench
JCGSSR/L...	CSTB-3	T-9F

Miniature Tool

INSERT

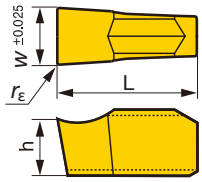
GE20



Designation	rε	Coated GH730	Cermet NS9530	W	L	h
GE20	0.2	●	●	2	10	3.5

● : Line up

For aluminium and non-ferrous metals



Designation	rε	Uncoated KS05F	W	L	h
GE20-AL	0.2	●	2	10	3.5

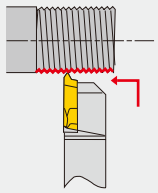
● : Line up

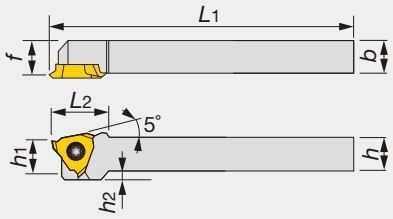
Reference pages
Standard cutting conditions → **B371**

STANDARD CUTTING CONDITIONS (GE type insert)

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steels Alloy steels (~ 150HB)	NS9530	100 ~ 200	0.05 - 0.14
		GH730	50 ~ 180	0.05 - 0.14
	Medium carbon steels Alloy steels (150 ~ 250HB)	NS9530	80 ~ 180	0.05 - 0.14
		GH730	50 ~ 150	0.05 - 0.14
	High carbon steels Alloy steels (250HB ~)	NS9530	80 ~ 150	0.05 - 0.14
		GH730	50 ~ 120	0.05 - 0.14
M	Stainless steels	GH730	50 ~ 120	0.05 - 0.14
K	Gray and ductile cast irons	GH730	50 ~ 180	0.05 - 0.14
N	Aluminium alloys Non-ferrous metals	KS05F	200 ~ 300	0.03 - 0.1

J-SERIES
JSTTR/L
External threading toolholders





Right hand (R) shown.

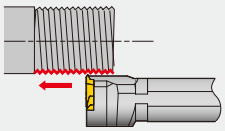
Designation	h	b	L1	L2	h1	f	h2	Insert
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L3...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1616X3	16	16	120	18.5	16	15.5	-	JTTR/L3...

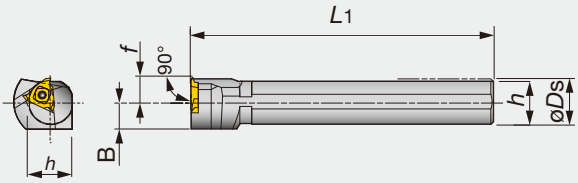
• Recommend clamping torque: 1.2 N·m

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSTTR/L...	CSTB-4SD	T-8F	(T-8L)

J-SERIES
JS-TTL3
External threading toolholders





Left hand (L) shown.

Designation	øDs	f	L1	h	B	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

• Recommend clamping torque: 3.5 N·m

SPARE PARTS

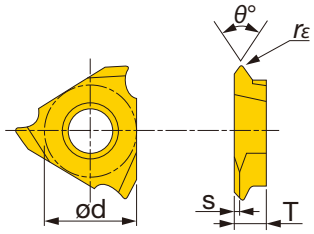
Designation	Clamping screw	Wrench
JS**-TTL3	CSTB-4S	T-15F

Reference pages

JSTTR/L, JS-TTL3: Inserts → **B373**

INSERT

JTT (sharp edge)

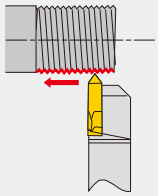


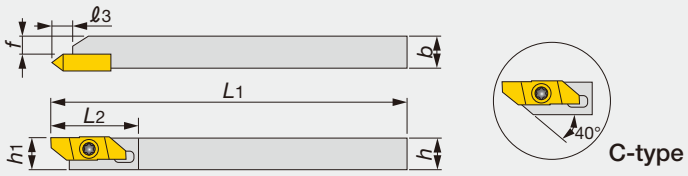
Right hand (R) shown.

Designation	rε	Coated				Cermet		Uncoated		θ°	ød	T	s
		SH725		J740		NS9530		TH10					
		R	L	R	L	R	L	R	L				
JTTR/L3005F-55	0.05	●		●						55	9.525	3.18	0.6
JTTR/L3005F	0.05	●	●	●		●		●		60	9.525	3.18	0.9
JTTR/L3010F	0.1	●	●	●		●		●		60	9.525	3.18	0.9

Machinable pitch range: 0.5 to 1 mm

● : Line up





Right hand (R) shown.

Designation	h	b	L1	L2	ℓ3	h1	f	Insert
JSXBR1010K8-C	10	10	125	29	6.4	10	5.7	JXT*R...
JSXBR1212K8-C	12	12	125	29	6.4	12	7.7	JXT*R...
JSXBR1616K8	16	16	125	29	6.4	16	11.7	JXT*R...
JSXBR2020K8	20	20	125	29	6.4	20	15.7	JXT*R...
JSXBR2525K8	25	25	125	29	6.4	25	20.7	JXT*R...

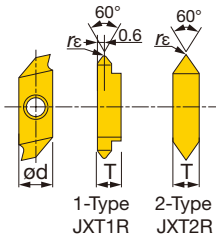
- Can be wrenched from back side with both end torx screw.
- This toolholder is compatible with JXB-type inserts and JXT-type inserts.

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional parts)
JSXBR...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXT (sharp edge)

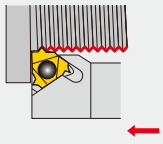


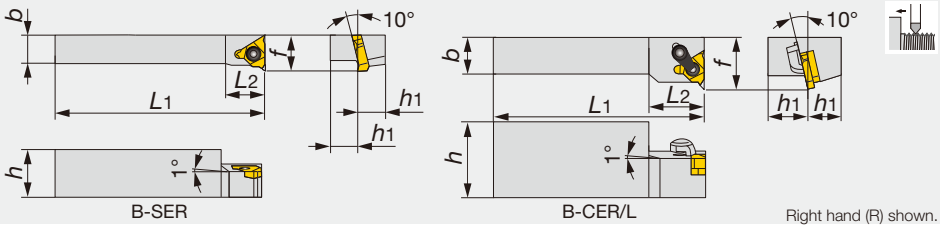
Designation	rε	Coated J740	Uncoated TH10	θ°	ød	T
JXT1R6000F	0.03	●	●	60	8	3.97
JXT2R6000F	0.03	●	●	60	8	3.97

Machinable pitch range: 0.5 to 1 mm

● : Line up

TUNGTHREAD
B-S/CER/L
External threading toolholders



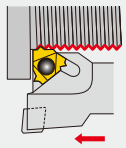


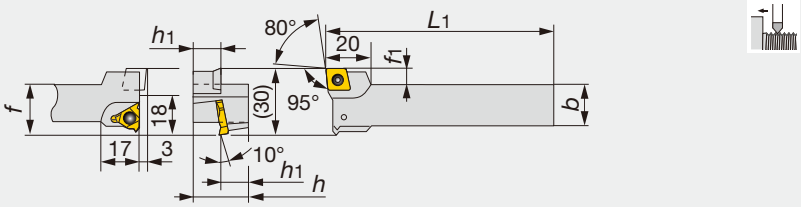
Designation	h	b	L1	L2	h1	f	Insert
B-SER10H16	20	10	100	15	10	16	16ER/L...
B-SER12K16	24	12	125	18	12	18	16ER/L...
B-CER/L16M16	32	16	150	24	16	22	16ER/L...

SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench
B-SER**16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F

TUNGTHREAD
BC-SER/L
External threading toolholders



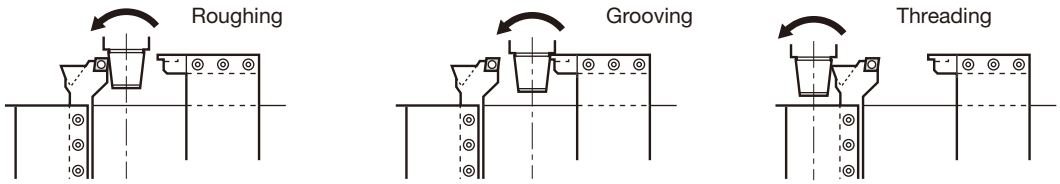


Designation	h	b	L1	h1	f	f1	Insert
BC-SER12K16	24	16	125	12	23	7	16ER/L..., CC*T09T3...

SPARE PARTS

Designation	Clamping screw	Wrench
BC-SER**16	CSTB-3.5	T-15F

● **Tooling examples using BC-type toolholders**



Reference pages

B-S/CER/L: Inserts → **B384 -**, Standard cutting conditions → **B382**

BC-SER/L: Inserts → **B104 -** (CC*T09T3...), **B384 -** (16ER/L...),
PCD → **B177**, Standard cutting conditions → **B382**

TUNGTHREAD

Inserts and toolholders for threading

B384

Threading Tool for Oil and Gas

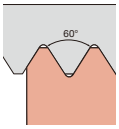
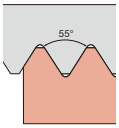
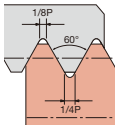
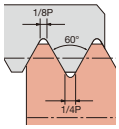
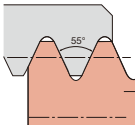
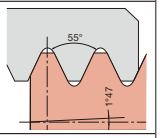
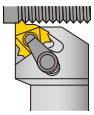
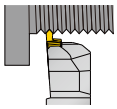
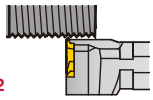
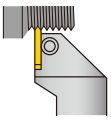
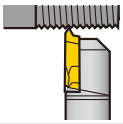
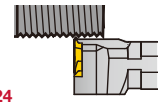
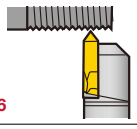
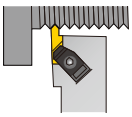
Tool series for threading oil well goods

B427

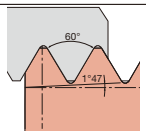
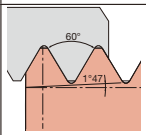
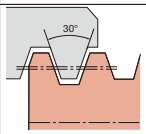
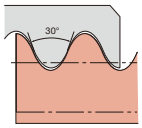
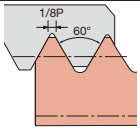
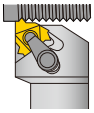
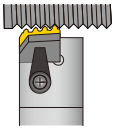
TungThread

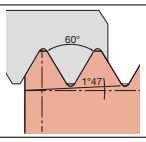
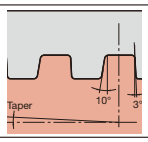
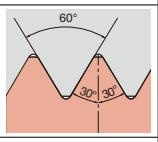
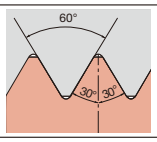
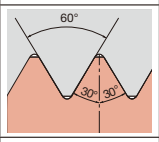
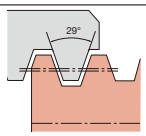
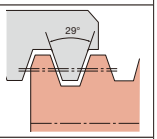
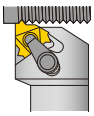
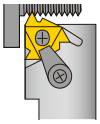
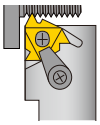
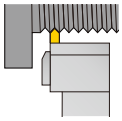
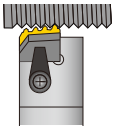
Tungaloy **B377**

Applicable tool for each external thread type

Thread type	Partial profile		Full profile				
	60°	55°	ISO metric	Unified	Whitworth	Parallel pipe thread	Taper pipe thread
	-	-	M	UNC, UNF UNEF	BSW, BSF W	G BSP, PF	R, PT, BSPT
Thread form / Tool type							
ST type  B398	0.5 ~ 6 mm 48 ~ 4TPI B384	0.5 ~ 5 mm 48 ~ 5TPI B385	0.5 ~ 6 mm B386	32 ~ 5TPI B388	28 ~ 5TPI B390		28 ~ 11TPI B391
TETRAMCUT STCR/L-18  B421	0.8 ~ 3 mm 32 ~ 8TPI B423	—	—	—	—		—
TETRAMCUT JS-STCL18  B422	0.8 ~ 3 mm 32 ~ 8TPI B423	—	—	—	—		—
TT-R/L  B420	~ 3 mm ~ 8TPI B419	~ 3 mm ~ 8TPI B419	—	—	—		—
JSTTR/L  B424	0.5 ~ 1 mm 48 ~ 25TPI B425	0.5 ~ 1 mm 48 ~ 25TPI B425	—	—	—		—
JS-TTL3  B424	0.5 ~ 1 mm 48 ~ 25TPI B425	0.5 ~ 1 mm 48 ~ 25TPI B425	—	—	—		—
JSXBR/L  B426	0.5 ~ 1 mm 48 ~ 25TPI B426	—	—	—	—		—
TUNGT-CLAMP  C021	1.27 ~ 4.23 mm 20 ~ 6TPI C023	—	—	—	—		—

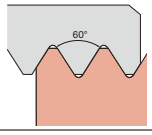
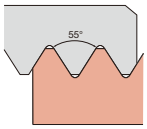
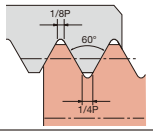
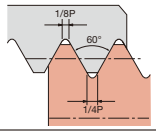
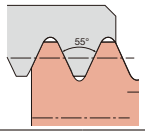
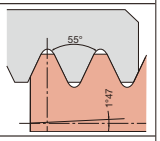
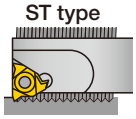
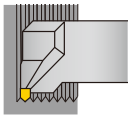
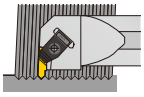
The page number for the product details is shown in red.

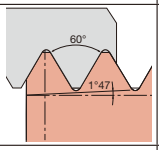
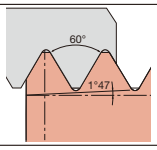
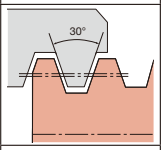
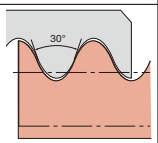
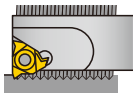
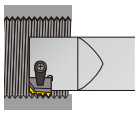
Thread type	Full profile					
	National taper pipe		30° Trapezoidal	DIN 405 Round	UNJ	
	NPT	NPTF	TR	Rd	UNJC,UNJF	
Thread form / Tool type						
ST type  B398	27 ~ 8TPI B392	27 ~ 8TPI B393	1.5 ~ 6 mm B394	8TPI, 6TPI B396	32 ~ 8TPI B396	
Chaser  B434	11.5TPI, 8TPI B434	——	——	——	——	

Thread type	Full profile						
	API Tubing & Casing		API Rotary Shoulder Connection			ACME	STUB ACME
	Round	Buttress	V-0.038R	V-0.040	V-0.050		
Thread form / Tool type							
ST type  B398	10TPI, 8TPI B395	5TPI (0.75TPF) B395	——	——	——	12 ~ 5TPI B394	——
Lay down (Single side)  B427	——	5TPI (0.75TPF) 5TPI (1TPF) B428	——	——	——	——	——
Lay down (Double side)  B429	——	——	4TPI (2TPF) 4TPI (3TPF) B430	5TPI (3TPF) B430	4TPI (2TPF) 4TPI (3TPF) B430	——	——
On edge  B431	10TPI, 8TPI B433	5TPI (0.75TPF) 5TPI (1TPF) B433	——	——	——	16 ~ 3TPI B433	16 ~ 3TPI B433
Chaser  B434	10TPI, 8TPI B434	5TPI (0.75TPF) B434	——	——	——	——	——

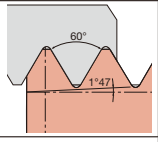
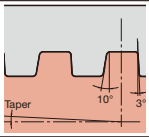
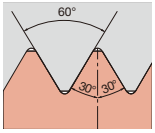
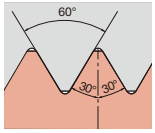
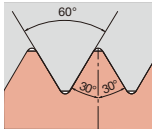
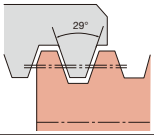
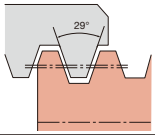
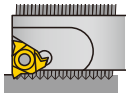
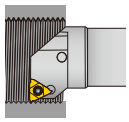
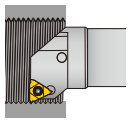
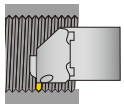
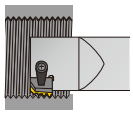
The page number for the product details is shown in red.

Applicable tool for each internal thread type

Thread type	Partial profile		Full profile				
	60°	55°	ISO metric	Unified	Whitworth	Parallel pipe thread	Taper pipe thread
	-	-	M	UNC, UNF UNEF	BSW, BSF W	G, Rp BSP, PF, PS	Rc, PT, BSPT
Thread form / Tool type							
ST type  B399	0.5 ~ 6 mm 48 ~ 4TPI B384	0.5 ~ 5 mm 48 ~ 5TPI B385	0.5 ~ 6 mm B386	32 ~ 5TPI B388	28 ~ 5TPI B390		19 ~ 11TPI B391
TT-R/L  B420	~ 3 mm ~ 8TPI B419	~ 3 mm ~ 8TPI B419	——	——	——		——
TUNGT-CLAMP  C022	2.11 ~ 5.08 mm 12 ~ 5TPI C023	——	——	——	——		——

Thread type	Full profile				
	National taper pipe		30° Trapezoidal	DIN 405 Round	
	NPT	NPTF	TR	Rd	
Thread form / Tool type					
ST type  B399	27 ~ 8TPI B392	14 ~ 8TPI B393	1.5 ~ 5 mm B394	6TPI B396	
Chaser  B435	11.5TPI, 8TPI B435	——	——	——	

The page number for the product details is shown in red.

Thread type	Full profile						
	API Tubing & Casing		API Rotary Shoulder Connection			ACME	STUB ACME
	Round	Buttress	V-0.038R	V-0.040	V-0.050		
Thread form / Tool type							
ST type  B399	10TPI, 8TPI B395	5TPI (0.75TPF) B395	——	——	——	12 ~ 5TPI B394	——
Lay down (Single side)  B428	——	5TPI (0.75TPF) 5TPI (1TPF) B428	——	——	——	——	——
Lay down (Double side)  B430	——	——	4TPI (2TPF) 4TPI (3TPF) B430	5TPI (3TPF) B430	4TPI (2TPF) 4TPI (3TPF) B430	——	——
On edge  B432	10TPI, 8TPI B433	5TPI (0.75TPF) 5TPI (1TPF) B433	——	——	——	——	——
Chaser  B435	10TPI, 8TPI B435	5TPI (0.75TPF) B435	——	——	——	——	——

The page number for the product details is shown in red.

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Cutting speed: *Vc* (m/min)			
			AH725	T313V	NS9530	TH10
P	Carbon steels	< 200HB	80 - 180	100 - 200	150 - 200	-
		> 200HB	60 - 160	100 - 150	100 - 170	-
M	Stainless steels	-	50 - 130	70 - 130	-	-
K	Cast irons	-	-	70 - 150	-	70 - 90
N	Non-ferrous metals	-	-	-	-	100 - 500
S	Heat-resisting alloys	-	-	-	-	10 - 40
H	Hard materials	50 ~ 60HRC	-	-	-	10 - 30

DESIGNATION SYSTEM FOR TAC INSERTS

16 I R 175 ISO - B

❶ ❷ ❸ ❹ ❺ ❻

❶ Insert size

Symbol	I. C. dia (mm)
06	-
11	6.35
16	9.525
22	12.7
27	15.875

❷ External or Internal

E	External
I	Internal

❸ Hand of insert

R	Right hand
L	Left hand

❹ Pitch (TPI)

Partial-profile inserts	
A	Pitch: 0.5 ~ 1.5 mm TPI: 48 ~ 16
AG	Pitch: 0.5 ~ 3 mm TPI: 48 ~ 8
G	Pitch: 1.75 ~ 3 mm TPI: 14 ~ 8
N	Pitch: 3.5 ~ 5 mm TPI: 7 ~ 5
Z	Pitch: 4 ~ 6 mm TPI: 6 ~ 4

Full-profile inserts

pitch (mm)×10 or 100
TPI (Thread Per Inch)
(Examples)
05: 0.5 mm pitch×10
175: 1.75 mm pitch×100
14: 14 TPI

❺ Thread type

Partial-profile inserts	
60°	60° thread angle
55°	55° thread angle
TR	30° trapezoidal
ACME	29° trapezoidal
Full-profile inserts	
ISO	Metric
UN	Unified
W	Whitworth
PT	Taper pipe
NPT	National taper pipe
NPTF	National taper pipe
RAPI	API round
RD	API round
BAPI	API buttress
RD	Round (DIN405)
UNJ	UNJ

❻ Chipbreaker

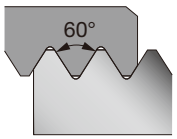
B	With (Basic selection)
M	With
CB	With
-	Without

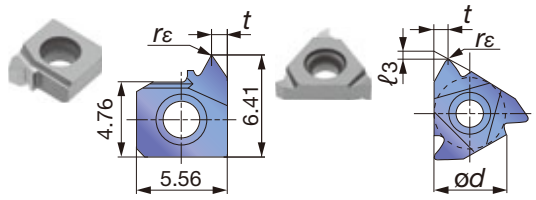
Note: Please identify new designation system for internal inserts.
-i.e."N"→"I"
(Example) Conventional: 16NR15ISO
New: 16IR15ISO

Threading Tool

MEMO

60° thread angle





Right hand insert for internal threading shown.

Right hand insert for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Partial-profile insert

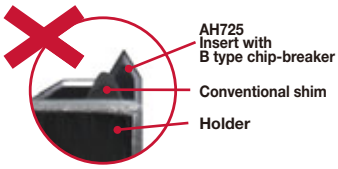
Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Un-coated						Coated		Un-coated				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	0.5~1.5	48~16	R									6IRA60	●		●	-	0.9	-	0.04
11	0.5~1.5	48~16	R									11IRA60	●	●	●	6.35	0.9	0.7	0.04
11	0.5~1.5	48~16	L									11ILA60	●	●	●	6.35	0.9	0.7	0.04
16	0.5~1.5	48~16	R	16ERA60	●	●	●	9.525	0.9	0.7	0.06	16IRA60	●	●	●	9.525	0.9	0.7	0.04
16	0.5~1.5	48~16	L	16ELA60	●	●	●	9.525	0.9	0.7	0.06	16ILA60	●	●	●	9.525	0.9	0.7	0.04
16	0.5~3	48~8	R	16ERAG60	●	●		9.525	1.6	1.2	0.06	16IRAG60	●	●		9.525	1.6	1.2	0.04
16	1.75~3	14~8	R	16ERG60	●	●	●	9.525	1.6	1.2	0.22	16IRG60	●	●	●	9.525	1.6	1.2	0.12
16	1.75~3	14~8	L	16ELG60	●	●		9.525	1.6	1.2	0.22	16ILG60	●	●	●	9.525	1.6	1.2	0.12
22	3.5~5	7~5	R	22ERN60	●	●	●	12.7	2.5	1.7	0.44	22IRN60	●	●	●	12.7	2.5	1.7	0.25
22	3.5~5	7~5	L	22ELN60	●	●		12.7	2.5	1.7	0.44	22ILN60	●	●		12.7	2.5	1.7	0.25
27	4~6	6~4	R	27ERZ60	●	●		15.875	3.2	2.2	0.5	27IRZ60	●	●		15.875	3.2	2.2	0.28

Partial-profile insert with chipbreaker

Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated	Cermet							Coated	Cermet					
					AH725	NS9530							AH725	NS9530					
11	0.5~1.5	48~16	R									11IRA60-B	●			6.35	0.9	0.7	0.04
11	0.5~1.5	48~16	R									11IRA60-M		●		6.35	0.9	0.7	0.04
16	0.5~1.5	48~16	R	16ERA60-B	●*			9.525	0.9	0.8	0.05	16IRA60-B	●*			9.525	0.9	0.8	0.05
16	0.5~1.5	48~16	R	16ERA60-M		●		9.525	0.9	0.7	0.06	16IRA60-M		●		9.525	0.9	0.7	0.04
16	0.5~3	48~8	R	16ERAG60-B	●*			9.525	1.7	1.2	0.06	16IRAG60-B	●*			9.525	1.7	1.2	0.05
16	0.5~3	48~8	R	16ERAG60-M	●	●		9.525	1.6	1.2	0.06	16IRAG60-M	●	●		9.525	1.6	1.2	0.04
16	1.75~3	14~8	R	16ERG60-B	●*			9.525	1.7	1.2	0.17	16IRG60-B	●*			9.525	1.7	1.2	0.1
16	1.75~3	14~8	R	16ERG60-M		●		9.525	1.6	1.2	0.22	16IRG60-M		●		9.525	1.6	1.2	0.14
22	3.5~5	7~5	R	22ERN60-B	●			12.7	2.5	1.7	0.32	22IRN60-B	●			12.7	2.5	1.7	0.19

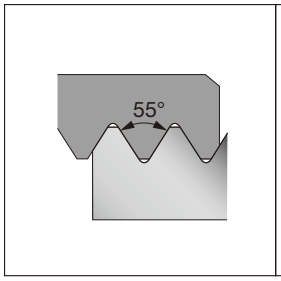
Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

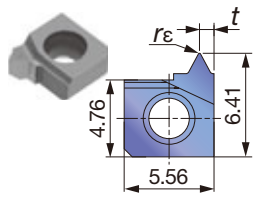
Please check the items used and replace shims if necessary (see page B397).



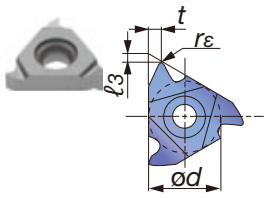
● : Line up / Packing Quantity = 5 pcs.

55° thread angle





Right hand insert
for internal threading shown.



Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Partial-profile insert

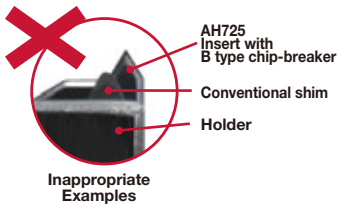
Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Un-coated						Coated		Un-coated				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	0.5~1.5	48~16	R									6IRA55	●		●	-	0.9	-	0.07
11	0.5~1.5	48~16	R									11IRA55	●	●	●	6.35	0.9	0.7	0.07
16	0.5~1.5	48~16	R	16ERA55	●	●	●	9.525	0.9	0.7	0.07	16IRA55	●	●	●	9.525	0.9	0.7	0.07
16	0.5~3	48~8	R	16ERAG55	●			9.525	1.7	1.2	0.07	16IRAG55	●			9.525	1.7	1.2	0.07
16	1.75~3	14~8	R	16ERG55	●	●	●	9.525	1.6	1.2	0.25	16IRG55	●	●	●	9.525	1.7	1.2	0.25
22	3.5~5	7~5	R	22ERN55	●	●	●	12.7	2.5	1.7	0.5	22IRN55	●	●	●	12.7	2.5	1.7	0.5

Partial-profile insert with chipbreaker

Insert size	Pitch	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade	ød	t	ℓ3	rε	Designation	Grade	ød	t	ℓ3	rε
					Coated						Coated				
					AH725						AH725				
16	0.5~3	48~16	R	16ERAG55-B	●*	9.525	1.7	1.2	0.07	16IRAG55-B	●*	9.525	1.7	1.2	0.05
16	1.75~3	14~8	R	16ERG55-B	●*	9.525	1.7	1.2	0.23	16IRG55-B	●*	9.525	1.7	1.2	0.2

Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

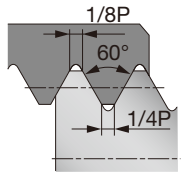
Please check the items used and replace shims if necessary (see page B397).

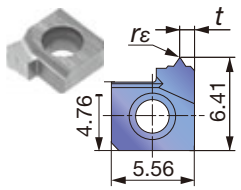


Threading Tool

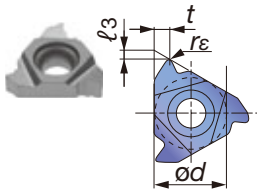
● : Line up / Packing Quantity = 5 pcs.

ISO metric





Right hand insert
for internal threading shown.



Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Full-profile insert

Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Un-coated						Coated		Un-coated				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	0.75		R									6IR075ISO	●		●	-	0.5	-	0.05
6	1		R									6IR10ISO	●		●	-	0.9	-	0.07
6	1.25		R									6IR125ISO	●		●	-	0.9	-	0.09
6	1.5		R									6IR15ISO	●		●	-	0.9	-	0.11
6	1.75		R									6IR175ISO	●		●	-	0.9	-	0.12
6	2		R									6IR20ISO	●		●	-	0.9	-	0.14
11	0.5		R									11IR05ISO	●		●	6.35	0.5	1.2	0.04
11	0.75		R									11IR075ISO	●			6.35	0.5	1.2	0.05
11	1		R									11IR10ISO	●	●	●	6.35	0.9	0.7	0.07
11	1		L									11IL10ISO	●			6.35	0.9	0.7	0.07
11	1.25		R									11IR125ISO	●			6.35	0.9	0.7	0.09
11	1.25		L									11IL125ISO	●			6.35	0.9	0.7	0.09
11	1.5		R									11IR15ISO	●	●	●	6.35	0.9	0.7	0.11
11	1.5		L									11IL15ISO	●			6.35	0.9	0.7	0.11
11	1.75		R									11IR175ISO	●	●		6.35	0.9	0.7	0.12
11	1.75		L									11IL175ISO	●			6.35	0.9	0.7	0.12
11	2		R									11IR20ISO	●	●		6.35	0.9	0.7	0.14
11	2		L									11IL20ISO	●			6.35	0.9	0.7	0.14
16	0.5		R	16ER05ISO	●		●	9.525	0.5	1.2	0.06	16IR05ISO	●			9.525	0.5	1.2	0.04
16	0.75		R	16ER075ISO	●	●	●	9.525	0.5	1.2	0.09	16IR075ISO	●			9.525	0.5	1.2	0.05
16	1		R	16ER10ISO	●	●	●	9.525	0.9	0.7	0.13	16IR10ISO	●	●	●	9.525	0.9	0.7	0.07
16	1		L	16EL10ISO				9.525	0.9	0.7	0.13	16IL10ISO	●			9.525	0.9	0.7	0.07
16	1.25		R	16ER125ISO	●	●		9.525	0.9	0.7	0.16	16IR125ISO	●			9.525	0.9	0.7	0.09
16	1.25		L	16EL125ISO				9.525	0.9	0.7	0.16	16IL125ISO	●			9.525	0.9	0.7	0.09
16	1.5		R	16ER15ISO	●	●	●	9.525	0.9	0.7	0.19	16IR15ISO	●	●	●	9.525	0.9	0.7	0.11
16	1.5		L	16EL15ISO	●	●		9.525	0.9	0.7	0.19	16IL15ISO	●			9.525	0.9	0.7	0.11
16	1.75		R	16ER175ISO	●	●		9.525	1.6	1.2	0.22	16IR175ISO	●	●		9.525	1.6	1.2	0.12
16	2		R	16ER20ISO	●	●	●	9.525	1.6	1.2	0.25	16IR20ISO	●	●	●	9.525	1.6	1.2	0.14
16	2		L	16EL20ISO	●			9.525	1.6	1.2	0.25	16IL20ISO	●			9.525	1.6	1.2	0.14
16	2.5		R	16ER25ISO	●	●	●	9.525	1.6	1.2	0.31	16IR25ISO	●	●	●	9.525	1.6	1.2	0.18
16	3		R	16ER30ISO	●	●	●	9.525	1.6	1.2	0.38	16IR30ISO	●	●	●	9.525	1.6	1.2	0.21
16	3		L	16EL30ISO				9.525	1.6	1.2	0.38	16IL30ISO	●			9.525	1.6	1.2	0.21

● : Line up / Packing Quantity = 5 pcs.

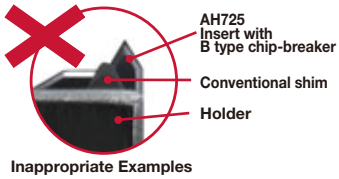
Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Un-coated						Coated		Un-coated				
					AH725	T313V	TH10						AH725	T313V	TH10				
22	3.5		R	22ER35ISO	●	●		12.7	2.5	1.7	0.44	22IR35ISO	●	●		12.7	2.5	1.7	0.25
22	4		R	22ER40ISO	●	●		12.7	2.5	1.7	0.5	22IR40ISO	●	●		12.7	2.5	1.7	0.28
22	4.5		R	22ER45ISO	●			12.7	2.5	1.7	0.56	22IR45ISO	●			12.7	2.5	1.7	0.32
22	5		R	22ER50ISO	●	●		12.7	2.5	1.7	0.63	22IR50ISO	●	●		12.7	2.5	1.7	0.35
27	6		R	27ER60ISO	●	●		15.875	3.2	2.2	0.75	27IR60ISO	●	●		15.875	3.2	2.2	0.42

Full-profile insert with chipbreaker

Insert size	Pitch	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Cermet						Coated		Cermet				
					AH725		NS9530						AH725		NS9530				
11	0.5		R									11IR05ISO-B	●			6.35	0.5	1.2	0.04
11	0.5		R									11IR05ISO-M			●	6.35	0.5	1.2	0.04
11	0.75		R									11IR075ISO-B	●			6.35	0.5	1.2	0.05
11	0.75		R									11IR075ISO-M			●	6.35	0.5	1.2	0.05
11	1		R									11IR10ISO-B	●			6.35	0.9	0.7	0.08
11	1		R									11IR10ISO-M			●	6.35	0.9	0.7	0.08
11	1.25		R									11IR125ISO-B	●			6.35	0.9	0.7	0.1
11	1.25		R									11IR125ISO-M			●	6.35	0.9	0.7	0.1
11	1.5		R									11IR15ISO-B	●			6.35	0.9	0.7	0.12
11	1.5		R									11IR15ISO-M			●	6.35	0.9	0.7	0.12
11	1.75		R									11IR175ISO-B	●			6.35	0.9	0.7	0.12
11	1.75		R									11IR175ISO-M			●	6.35	0.9	0.7	0.12
11	2		R									11IR20ISO-B	●			6.35	0.9	0.7	0.14
11	2		R									11IR20ISO-M			●	6.35	0.9	0.7	0.14
16	0.5		R	16ER05ISO-M			●	9.525	0.5	1.2	0.06								
16	0.75		R	16ER075ISO-B	●*			9.525	0.6	0.6	0.08								
16	0.75		R	16ER075ISO-M			●	9.525	0.5	1.2	0.09								
16	1		R	16ER10ISO-B	●*			9.525	0.7	0.7	0.11	16IR10ISO-B	●*			9.525	0.7	0.6	0.05
16	1		R	16ER10ISO-M	●		●	9.525	0.9	0.7	0.13	16IR10ISO-M			●	9.525	0.9	0.7	0.08
16	1.25		R	16ER125ISO-B	●*			9.525	0.9	0.8	0.14	16IR125ISO-B	●*			9.525	0.9	0.8	0.07
16	1.25		R	16ER125ISO-M			●	9.525	0.9	0.7	0.16	16IR125ISO-M			●	9.525	0.9	0.7	0.1
16	1.5		R	16ER15ISO-B	●*			9.525	1	0.8	0.19	16IR15ISO-B	●*			9.525	1	0.8	0.08
16	1.5		R	16ER15ISO-M	●		●	9.525	0.9	0.7	0.19	16IR15ISO-M	●		●	9.525	0.9	0.7	0.12
16	1.75		R	16ER175ISO-B	●*			9.525	1.2	0.9	0.2	16IR175ISO-B	●*			9.525	1.2	0.9	0.10
16	1.75		R	16ER175ISO-M			●	9.525	1.6	1.2	0.22	16IR175ISO-M			●	9.525	1.6	1.2	0.14
16	2		R	16ER20ISO-B	●*			9.525	1.3	1	0.24	16IR20ISO-B	●*			9.525	1.3	1	0.11
16	2		R	16ER20ISO-M	●		●	9.525	1.6	1.2	0.25	16IR20ISO-M			●	9.525	1.6	1.2	0.14
16	2.5		R	16ER25ISO-B	●*			9.525	1.5	1.1	0.3	16IR25ISO-B	●*			9.525	1.5	1.1	0.14
16	2.5		R	16ER25ISO-M			●	9.525	1.6	1.2	0.31	16IR25ISO-M			●	9.525	1.6	1.2	0.18
16	3		R	16ER30ISO-B	●*			9.525	1.6	1.2	0.38	16IR30ISO-B	●*			9.525	1.5	1.1	0.18
16	3		R	16ER30ISO-M			●	9.525	1.6	1.2	0.38	16IR30ISO-M			●	9.525	1.6	1.2	0.21
22	3.5		R	22ER35ISO-B	●			12.7	2.3	1.6	0.48								
22	4		R	22ER40ISO-B	●			12.7	2.3	1.6	0.52								

Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

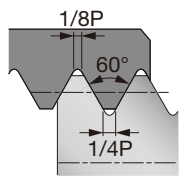
Please check the items used and replace shims if necessary(see page B397).

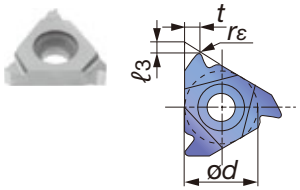


Inappropriate Examples

● : Line up / Packing Quantity = 5 pcs.

Unified





Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert: Designation	Grade: Coated: AH725	Grade: Coated: T313V	ød	t	ℓ3	rε	Internal insert: Designation	Grade: Coated: AH725	Grade: Coated: T313V	ød	t	ℓ3	rε
11	(0.794)	32	R								11IR32UN	●		6.35	0.5	1.2	0.06
11	(0.907)	28	R								11IR28UN	●		6.35	0.5	1.2	0.06
11	(1.058)	24	R								11IR24UN	●		6.35	0.9	0.7	0.07
11	(1.27)	20	R								11IR20UN	●		6.35	0.9	0.7	0.09
11	(1.411)	18	R								11IR18UN	●		6.35	0.9	0.7	0.1
11	(1.588)	16	R								11IR16UN	●		6.35	0.9	0.7	0.11
11	(1.814)	14	R								11IR14UN	●		6.35	0.9	0.7	0.13
16	(0.794)	32	R	16ER32UN	●		9.525	0.5	1.2	0.1	16IR32UN	●		9.525	0.5	1.2	0.06
16	(0.907)	28	R	16ER28UN	●		9.525	0.5	1.2	0.11	16IR28UN	●		9.525	0.5	1.2	0.06
16	(1.058)	24	R	16ER24UN	●		9.525	0.9	0.7	0.13	16IR24UN	●		9.525	0.9	0.7	0.07
16	(1.27)	20	R	16ER20UN	●		9.525	0.9	0.7	0.16	16IR20UN	●		9.525	0.9	0.7	0.09
16	(1.411)	18	R	16ER18UN	●		9.525	0.9	0.7	0.18	16IR18UN	●		9.525	0.9	0.7	0.1
16	(1.588)	16	R	16ER16UN	●	●	9.525	0.9	0.7	0.2	16IR16UN	●	●	9.525	0.9	0.7	0.11
16	(1.814)	14	R	16ER14UN	●	●	9.525	1.6	1.2	0.23	16IR14UN	●	●	9.525	1.6	1.2	0.13
16	(1.954)	13	R	16ER13UN	●		9.525	1.6	1.2	0.24	16IR13UN	●		9.525	1.6	1.2	0.14
16	(2.117)	12	R	16ER12UN	●	●	9.525	1.6	1.2	0.27	16IR12UN	●	●	9.525	1.6	1.2	0.15
16	(2.309)	11	R	16ER11UN	●		9.525	1.6	1.2	0.29	16IR11UN	●		9.525	1.6	1.2	0.16
16	(2.54)	10	R	16ER10UN	●		9.525	1.6	1.2	0.32	16IR10UN	●		9.525	1.6	1.2	0.18
16	(2.822)	9	R	16ER9UN	●		9.525	1.6	1.2	0.35	16IR9UN	●		9.525	1.6	1.2	0.2
16	(3.175)	8	R	16ER8UN	●	●	9.525	1.6	1.2	0.4	16IR8UN	●	●	9.525	1.6	1.2	0.22
22	(3.629)	7	R	22ER7UN	●		12.7	2.5	1.7	0.45	22IR7UN	●		12.7	2.5	1.7	0.25
22	(4.233)	6	R	22ER6UN	●		12.7	2.5	1.7	0.53	22IR6UN	●		12.7	2.5	1.7	0.3
22	(5.08)	5	R	22ER5UN	●		12.7	2.5	1.7	0.64	22IR5UN	●		12.7	2.5	1.7	0.36

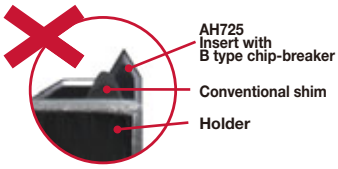
● : Line up / Packing Quantity = 5 pcs.

Full-profile insert with chipbreaker

Insert size	Pitch	TPI	Hand of cut	External insert							Internal insert						
				Designation	Grade		ød	t	ℓ3	rε	Designation	Grade		ød	t	ℓ3	rε
					Coated	Cermet						Coated	Cermet				
					AH725	NS9530						AH725	NS9530				
16		24	R	**16ER24UN-B**	●*		9.525	0.8	0.7	0.11							
16		24	R	**16ER24UN-M**		●	9.525	0.9	0.7	0.13							
16		20	R	**16ER20UN-B**	●*		9.525	0.9	0.8	0.14	**16IR20UN-B**	●*		9.525	0.9	0.8	0.06
16		20	R	**16ER20UN-M**		●	9.525	0.9	0.7	0.16	**16IR20UN-M**		●	9.525	0.9	0.7	0.09
16		18	R	**16ER18UN-B**	●*		9.525	1	0.8	0.15	**16IR18UN-B**	●*		9.525	1	0.8	0.08
16		18	R	**16ER18UN-M**		●	9.525	0.9	0.7	0.18	**16IR18UN-M**		●	9.525	0.9	0.7	0.1
16		16	R	**16ER16UN-B**	●*		9.525	1.1	0.9	0.19	**16IR16UN-B**	●*		9.525	1.1	0.9	0.09
16		16	R	**16ER16UN-M**		●	9.525	0.9	0.7	0.2	**16IR16UN-M**		●	9.525	0.9	0.7	0.11
16		14	R	**16ER14UN-B**	●*		9.525	1.2	1	0.22	**16IR14UN-B**	●*		9.525	1.2	0.9	0.11
16		14	R	**16ER14UN-M**		●	9.525	1.6	1.2	0.23	**16IR14UN-M**		●	9.525	1.6	1.2	0.13
16		13	R	**16ER13UN-B**	●*		9.525	1.3	1	0.24							
16		12	R	**16ER12UN-B**	●*		9.525	1.4	1.1	0.25	**16IR12UN-B**	●*		9.525	1.4	1.1	0.12
16		12	R	**16ER12UN-M**		●	9.525	1.6	1.2	0.27	**16IR12UN-M**		●	9.525	1.6	1.2	0.15
16		8	R	**16ER8UN-B**	●*		9.525	1.6	1.2	0.41	**16IR8UN-B**	●*		9.525	1.5	1.1	0.19
16		8	R	**16ER8UN-M**		●	9.525	1.6	1.2	0.4	**16IR8UN-M**		●	9.525	1.6	1.2	0.22

Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

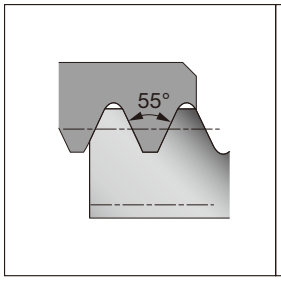
Please check the items used and replace shims if necessary (see page B397).

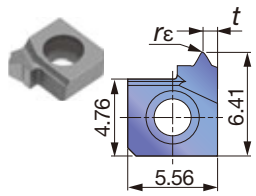


Inappropriate Examples

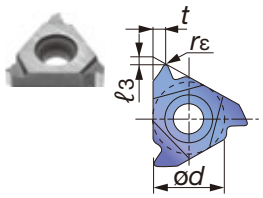
● : Line up / Packing Quantity = 5 pcs.

Whitworth





Right hand insert
for internal threading shown.



Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

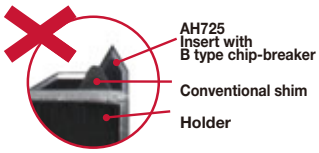
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert: Designation	Grade: Coated AH725	Coated T313V	Un-coated TH10	ød	t	ℓ3	rε	Internal insert: Designation	Grade: Coated AH725	Coated T313V	Un-coated TH10	ød	t	ℓ3	rε
6	(1.337)	19	R									6IR19W	●		●	-	0.9	-	0.17
11	(1.337)	19	R									11IR19W	●	●	●	6.35	0.9	0.7	0.17
11	(1.814)	14	R									11IR14W	●	●	●	6.35	0.9	0.7	0.23
16	(0.907)	28	R	16ER28W	●	●		9.525	0.9	0.7	0.11	16IR28W	●			9.525	0.9	0.7	0.11
16	(0.97)	26	R	16ER26W	●			9.525	0.9	0.7	0.12	16IR26W	●			9.525	0.9	0.7	0.12
16	(1.27)	20	R	16ER20W	●			9.525	0.9	0.7	0.16	16IR20W	●			9.525	0.9	0.7	0.16
16	(1.337)	19	R	16ER19W	●	●		9.525	0.9	0.7	0.17	16IR19W	●			9.525	0.9	0.7	0.17
16	(1.411)	18	R	16ER18W	●			9.525	0.9	0.7	0.18	16IR18W	●			9.525	0.9	0.7	0.18
16	(1.588)	16	R	16ER16W	●	●		9.525	0.9	0.7	0.2	16IR16W	●	●		9.525	0.9	0.7	0.2
16	(1.814)	14	R	16ER14W	●	●	●	9.525	1.6	1.2	0.23	16IR14W	●	●	●	9.525	1.6	1.2	0.23
16	(1.814)	14	L	16EL14W	●			9.525	1.6	1.2	0.23								
16	(2.117)	12	R	16ER12W	●	●		9.525	1.6	1.2	0.27	16IR12W	●	●		9.525	1.6	1.2	0.27
16	(2.309)	11	R	16ER11W	●	●	●	9.525	1.6	1.2	0.29	16IR11W	●	●	●	9.525	1.6	1.2	0.29
16	(2.54)	10	R	16ER10W	●	●		9.525	1.6	1.2	0.32	16IR10W	●	●		9.525	1.6	1.2	0.32
16	(2.822)	9	R	16ER9W	●			9.525	1.6	1.2	0.35	16IR9W	●			9.525	1.6	1.2	0.35
16	(3.175)	8	R	16ER8W	●	●		9.525	1.6	1.2	0.4	16IR8W	●	●		9.525	1.6	1.2	0.4
22	(3.629)	7	R	22ER7W	●			12.7	2.5	1.7	0.45	22IR7W	●			12.7	2.5	1.7	0.45
22	(4.233)	6	R	22ER6W	●			12.7	2.5	1.7	0.53	22IR6W	●			12.7	2.5	1.7	0.53
22	(5.08)	5	R	22ER5W	●			12.7	2.5	1.7	0.64	22IR5W	●			12.7	2.5	1.7	0.64

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert: Designation	Grade: Coated AH725	Cermet NS9530	ød	t	ℓ3	rε	Internal insert: Designation	Grade: Coated AH725	Cermet NS9530	ød	t	ℓ3	rε
16	(1.337)	19	R	16ER19W-B	●*		9.525	1	0.8	0.16							
16	(1.337)	19	R	16ER19W-M		●	9.525	0.9	0.7	0.17	16IR19W-M		●	9.525	0.9	0.7	0.17
16	(1.588)	16	R	16ER16W-B	●*		9.525	1.1	0.9	0.2	16IR16W-B	●*		9.525	1.1	0.9	0.18
16	(1.814)	14	R	16ER14W-B	●*		9.525	1.2	1	0.24	16IR14W-B	●*		9.525	1.2	1	0.21
16	(1.814)	14	R	16ER14W-M		●	9.525	1.6	1.2	0.23	16IR14W-M		●	9.525	1.6	1.2	0.23
16	(2.309)	11	R	16ER11W-B	●*		9.525	1.5	1.1	0.27	16IR11W-B	●*		9.525	1.5	1.1	0.27
16	(2.309)	11	R	16ER11W-M		●	9.525	1.6	1.2	0.29	16IR11W-M		●	9.525	1.6	1.2	0.29

Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

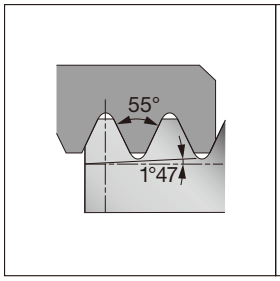
Please check the items used and replace shims if necessary (see page B397).

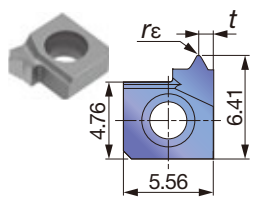


Inappropriate Examples

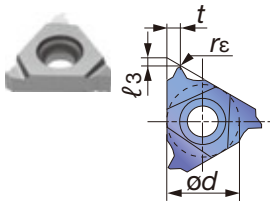
● : Line up / Packing Quantity = 5 pcs.

Taper pipe





Right hand insert
for internal threading shown.



Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11		SNR/L**11...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

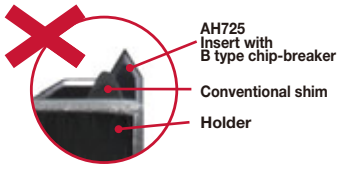
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert: Designation	Grade: Coated AH725	Grade: Coated T313V	Grade: Un-coated TH10	ød	t	ℓ3	rε	Internal insert: Designation	Grade: Coated AH725	Grade: Coated T313V	Grade: Un-coated TH10	ød	t	ℓ3	rε
6	(1.337)	19	R									6IR19PT	●		●	-	0.9	-	0.14
11	(1.337)	19	R									11IR19PT	●	●	●	6.35	0.9	0.7	0.14
11	(1.814)	14	R									11IR14PT	●	●	●	6.35	0.9	0.7	0.16
16	(0.907)	28	R	16ER28PT	●	●		9.525	0.9	0.7	0.09								
16	(1.337)	19	R	16ER19PT	●	●		9.525	0.9	0.7	0.14	16IR19PT	●			9.525	0.9	0.7	0.14
16	(1.814)	14	R	16ER14PT	●	●		9.525	1.6	1.2	0.16	16IR14PT	●	●	●	9.525	1.6	1.2	0.16
16	(2.309)	11	R	16ER11PT	●	●		9.525	1.6	1.2	0.26	16IR11PT	●	●	●	9.525	1.6	1.2	0.26

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert: Designation	Grade: Coated AH725	Grade: Cermet NS9530	ød	t	ℓ3	rε	Internal insert: Designation	Grade: Coated AH725	Grade: Cermet NS9530	ød	t	ℓ3	rε
16	(1.337)	19	R	16ER19PT-M		●	9.525	0.9	0.7	0.18	16IR19PT-M		●	9.525	0.9	0.7	0.18
16	(1.814)	14	R	16ER14PT-B	●*		9.525	1.2	1	0.21	16IR14PT-B	●*		9.525	1	1.2	0.21
16	(1.814)	14	R	16ER14PT-M		●	9.525	1.6	1.2	0.25	16IR14PT-M		●	9.525	1.6	1.2	0.25
16	(2.309)	11	R	16ER11PT-B	●*		9.525	1.5	1.1	0.28	16IR11PT-B	●*		9.525	1.5	1.1	0.28
16	(2.309)	11	R	16ER11PT-M		●	9.525	1.6	1.2	0.32	16IR11PT-M		●	9.525	1.6	1.2	0.32

Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

Please check the items used and replace shims if necessary (see page B397).

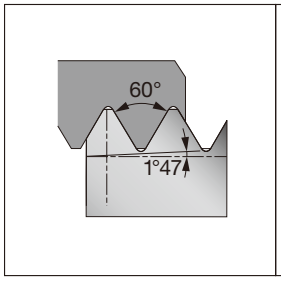


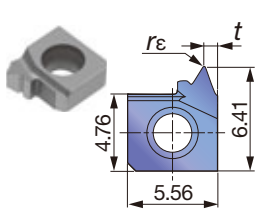
Inappropriate Examples

Threading Tool

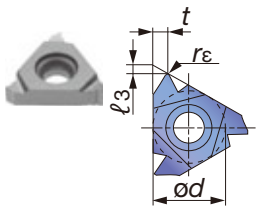
● : Line up / Packing Quantity = 5 pcs.

NPT





Right hand insert
for internal threading shown.



Right hand insert
for external threading shown.

Applicable toolholders

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

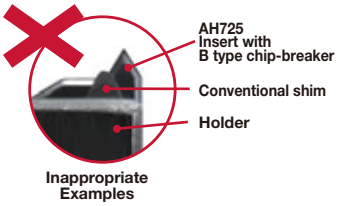
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			ød	t	ℓ3	rε	Designation	Grade			ød	t	ℓ3	rε
					Coated		Un-coated						Coated		Un-coated				
					AH725	T313V	TH10						AH725	T313V	TH10				
6	(1.411)	18	R									6IR18NPT	●		●	-	0.9	-	0.03
16	(0.941)	27	R	16ER27NPT	●			9.525	0.5	1.2	0.02	16IR27NPT	●			9.525	0.5	1.2	0.02
16	(1.411)	18	R	16ER18NPT	●	●		9.525	0.9	0.7	0.03	16IR18NPT	●			9.525	0.9	0.7	0.03
16	(1.814)	14	R	16ER14NPT	●			9.525	1.6	1.2	0.04	16IR14NPT	●		●	9.525	1.6	1.2	0.04
16	(2.209)	11.5	R	16ER115NPT	●			9.525	1.6	1.2	0.05	16IR115NPT	●		●	9.525	1.6	1.2	0.05
16	(3.175)	8	R	16ER8NPT	●			9.525	1.6	1.2	0.07	16IR8NPT	●		●	9.525	1.6	1.2	0.07

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert							Internal insert							
				Designation	Grade		ød	t	ℓ3	rε	Designation	Grade		ød	t	ℓ3	rε
					Coated	Cermet						Coated	Cermet				
					AH725	NS9530						AH725	NS9530				
16	(1.411)	18	R	16ER18NPT-B	●*		9.525	1	0.8	0.05							
16	(1.411)	18	R	16ER18NPT-M		●	9.525	0.9	0.7	0.07	16IR18NPT-M		●	9.525	0.9	0.7	0.07
16	(1.814)	14	R	16ER14NPT-B	●*		9.525	1.2	0.9	0.05	16IR14NPT-B	●*		9.525	1.2	0.9	0.05
16	(1.814)	14	R	16ER14NPT-M		●	9.525	1.6	1.2	0.08	16IR14NPT-M		●	9.525	1.6	1.2	0.08
16	(2.209)	11.5	R	16ER115NPT-B	●*		9.525	1.5	1.1	0.09	16IR115NPT-B	●*		9.525	1.5	1.1	0.09
16	(2.209)	11.5	R	16ER115NPT-M		●	9.525	1.6	1.2	0.09	16IR115NPT-M		●	9.525	1.6	1.2	0.09
16	(3.175)	8	R	16ER8NPT-B	●*		9.525	1.8	1.3	0.12	16IR8NPT-B	●*		9.525	1.8	1.3	0.12

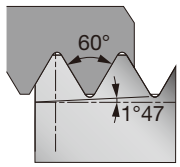
Note: ●* Please be aware of the different dimensions regarding "*t*" & "ℓ3".
Required to modify the position of the cutting edge.
Colored product needs to change the shim.

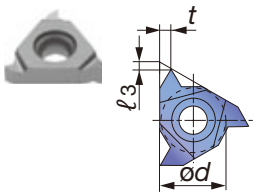
Please check the items used and replace shims if necessary (see page B397).



● : Line up / Packing Quantity = 5 pcs.

NPTF





Right hand insert
for external threading shown.

Applicable toolholders

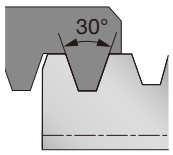
Insert size	External	Internal
16	CER/L**16...	TSNR/L**16
	B-SER/L**16	SNR/L**16...
	B-CER/L**16	TCNR/L**16...
	BC-SER/L**16	CNR/L**16...

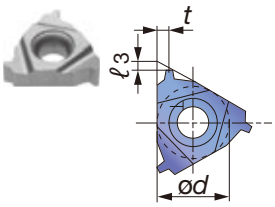
Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade / Coated / AH725	ød	t	ℓ3	rε	Designation	Grade / Coated / AH725	ød	t	ℓ3	rε
16	(0.941)	27	R	**16ER27NPTF**	●	9.525	0.5	1.2	-						
16	(1.411)	18	R	**16ER18NPTF**	●	9.525	0.9	0.7	-						
16	(1.814)	14	R	**16ER14NPTF**	●	9.525	1.6	1.2	-	**16IR14NPTF**	●	9.525	1.6	1.2	-
16	(2.209)	11.5	R	**16ER115NPTF**	●	9.525	1.6	1.2	-	**16IR115NPTF**	●	9.525	1.6	1.2	-
16	(3.175)	8	R	**16ER8NPTF**	●	9.525	1.6	1.2	-	**16IR8NPTF**	●	9.525	1.6	1.2	-

● : Line up / Packing Quantity = 5 pcs.

30° Trapezoidal (DIN103)





Right hand insert
for external threading shown.

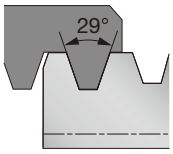
Applicable toolholders

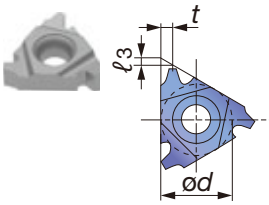
Insert size	External	Internal
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	

Special full-profile insert (see page B403)

Insert size	Pitch	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade Coated AH725	Grade Coated T313V	ød	t	ℓ3	Designation	Grade Coated AH725	Grade Coated T313V	ød	t	ℓ3
16	1.5		R	**16ER15TR**	●		9.525	0.9	0.7	**16IR15TR**	●		9.525	0.9	0.7
16	2		R	**16ER20TR**	●	●	9.525	1.6	1.3	**16IR20TR**	●	●	9.525	1.6	1.3
16	3		R	**16ER30TR**	●	●	9.525	1.6	1.3	**16IR30TR**	●	●	9.525	1.6	1.3
22	4		R	**22ER40TR**	●	●	12.7	2.5	2	**22IR40TR**	●	●	12.7	2.5	2
22	5		R	**22ER50TR**	●	●	12.7	2.5	2	**22IR50TR**	●	●	12.7	2.5	2
27	6		R	**27ER60TR**	●	●	15.875	3.2	2.5						

29° Trapezoidal (ACME)





Right hand insert
for external threading shown.

Applicable toolholders

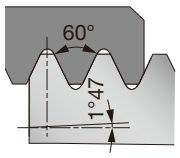
Insert size	External	Internal
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

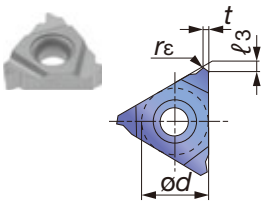
Special full-profile insert (see page B403)

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade Coated AH725	Grade Coated T313V	ød	t	ℓ3	Designation	Grade Coated AH725	Grade Coated T313V	ød	t	ℓ3
16	(2.117)	12	R	**16ER12ACME**	●		9.525	1.6	1.3	**16IR12ACME**	●		9.525	1.6	1.3
16	(2.540)	10	R	**16ER10ACME**	●		9.525	1.6	1.3	**16IR10ACME**	●		9.525	1.6	1.3
16	(3.175)	8	R	**16ER8ACME**	●	●	9.525	1.6	1.3	**16IR8ACME**	●	●	9.525	1.6	1.3
22	(4.233)	6	R	**22ER6ACME**	●	●	12.7	2.5	2	**22IR6ACME**	●	●	12.7	2.5	2
22	(5.080)	5	R	**22ER5ACME**	●	●	12.7	2.5	2	**22IR5ACME**	●	●	12.7	2.5	2

● : Line up / Packing Quantity = 5 pcs.

API Round





Right hand insert
for internal threading shown.

Applicable toolholders

Insert size	External	Internal
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

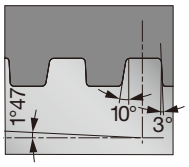
Full-profile insert

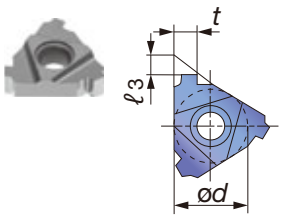
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert							Internal insert						
				Designation	Grade		ød	t	ℓ3	rε	Designation	Grade		ød	t	ℓ3	rε
					Coated							Coated					
					AH725	T313V						AH725	T313V				
16	(2.54)	10	R	**16ER10RAPI**	●		9.525	1.6	1.2	0.36	**16IR10RAPI**	●	●	9.525	1.6	1.2	0.36
16	(3.175)	8	R	**16ER8RAPI**	●		9.525	1.6	1.2	0.43	**16IR8RAPI**	●	●	9.525	1.6	1.2	0.43

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert						Internal insert					
				Designation	Grade	ød	t	ℓ3	rε	Designation	Grade	ød	t	ℓ3	rε
					Coated						Coated				
					AH725						AH725				
16	(2.54)	10	R	**16ER10RD-CB**	●	9.525	1.2	1.5	0.36	**16IR10RD-CB**	●	9.525	1.2	1.5	0.36
16	(3.175)	8	R	**16ER8RD-CB**	●	9.525	1.3	1.5	0.43	**16IR8RD-CB**	●	9.525	1.3	1.5	0.43

API Buttress





Right hand insert
for external threading shown.

Applicable toolholders

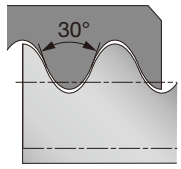
Insert size	External	Internal
22	CER/L**22...	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

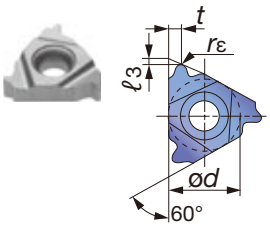
Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert					Internal insert				
				Designation	Grade	ød	t	ℓ3	Designation	Grade	ød	t	ℓ3
					Coated					Coated			
					AH725					AH725			
22	(5.08)	5	R	**22ER5BAPI**	●	12.7	3.72	2.2	**22IR5BAPI**	●	12.7	3.45	2.2

● : Line up / Packing Quantity = 5 pcs.

Round (DIN405)





Right hand insert
for external threading shown.

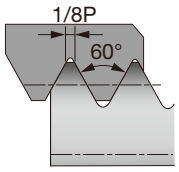
Applicable toolholders

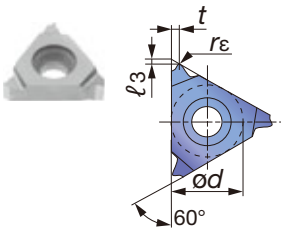
Insert size	External	Internal
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade Coated AH725	ød	t	ℓ3	rε	Designation	Grade Coated AH725	ød	t	ℓ3	rε
16		8	R	**16ER8RD-B**	●	9.525	1.3	1.4	-						
16		6	R	**16ER6RD-B**	●	9.525	1.7	1.5	-	**16IR6RD-B**	●	9.525	1.5	1.4	-

UNJ (Aerospace)





Right hand (R) shown.

Applicable toolholders

Insert size	External
16	CER/L**16... B-SER/L**16 B-CER/L**16 BC-SER/L**16

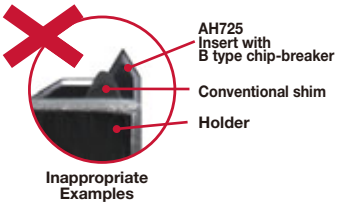
Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert					
				Designation	Grade Coated AH725	ød	t	ℓ3	rε
16		32	R	**16ER32UNJ**	●	9.525	0.5	1.2	0.13
16		28	R	**16ER28UNJ**	●	9.525	0.5	1.2	0.15
16		24	R	**16ER24UNJ**	●	9.525	0.9	0.7	0.18
16		20	R	**16ER20UNJ**	●	9.525	0.9	0.7	0.21
16		18	R	**16ER18UNJ**	●	9.525	0.9	0.7	0.24
16		16	R	**16ER16UNJ**	●	9.525	0.9	0.7	0.26
16		14	R	**16ER14UNJ**	●	9.525	1.6	1.2	0.3
16		12	R	**16ER12UNJ**	●	9.525	1.6	1.2	0.35
16		10	R	**16ER10UNJ**	●	9.525	1.6	1.2	0.42
16		8	R	**16ER8UNJ**	●	9.525	1.6	1.2	0.53

● : Line up / Packing Quantity = 5 pcs.

IMPORTANT NOTICE - Replacement of shim sheet

Please check the items used and replace shims if necessary (see the following list).



List of interchangeable Shims (Size 16 · Insert).

Holder type	Lead Angle	External designation		Internal designation	
		① Conventional	❶ Standard (New)	② Conventional	❷ Standard (New)
Dual clamping methods of screw-on and clamp-on	4°	GXE16-4DT	AE16-4DT	GXN16-4DT	AN16-4DT
	3°	GXE16-3DT	AE16-3DT	GXN16-3DT	AN16-3DT
	2°	GXE16-2DT	AE16-2DT	GXN16-2DT	AN16-2DT
	1° (Standard)	GX16-1DT	A16-1DT	GX16-1DT	A16-1DT
	0°	GXE16-0DT	AE16-0DT	GXN16-0DT	AN16-0DT
	-1°	GXE16-99DT	AE16-99DT	GXN16-99DT	AN16-99DT
	-2°	GXE16-98DT	AE16-98DT	GXN16-98DT	AN16-98DT
Clamp-on	4°	GXE16-4	AE16-4	GXN16-4	AN16-4
	3°	GXE16-3	AE16-3	GXN16-3	AN16-3
	2°	GXE16-2	AE16-2	GXN16-2	AN16-2
	1° (Standard)	GXE16-1	A16-1	GXN16-1	A16-1
	0°	GXE16-0	AE16-0	GXN16-0	AN16-0
	-1°	GXE16-99	AE16-99	GXN16-99	AN16-99
	-2°	GXE16-98	AE16-98	GXN16-98	AN16-98

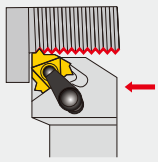
Target items for the replacement of shims (Size 16 · Insert).

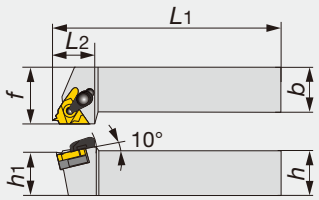
Thread type	External			Internal		
	Designation	Grade	Replacement	Designation	Grade	Replacement
ISO			① Conventional → ❶ Standard (New)	16IR15ISO-B	AH725	② Conventional → ❷ Standard (New)
				16IR175ISO-B	AH725	
				16IR20ISO-B	AH725	
55°	16ERAG55-B	AH725		16IRAG55-B	AH725	
				16IRG55-B	AH725	
60°	16ERA60-B	AH725		16IRAG60-B	AH725	
				16IRA60-B	AH725	
				16IRG60-B	AH725	
UN				16IR18UN-B	AH725	
				16IR16UN-B	AH725	
				16IR14UN-B	AH725	
W				16IR16W-B	AH725	
				16IR14W-B	AH725	
PT				16IR14PT-B	AH725	
NPT	16ER8NPT-B	AH725		16IR14NPT-B	AH725	
				16IR115NPT-B	AH725	

TUNGTHREAD

CER/L

External threading toolholders, Altanative clamping of screw-on or clamp-on (DT type only)





Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	Insert
CER/L1212H16DT	12	12	100	24	12	16	16ER/L...
CER/L1616H16DT	16	16	100	24	16	20	16ER/L...
CER/L2020K16DT	20	20	125	24	20	25	16ER/L...
CER/L2525M16DT	25	25	150	28	25	32	16ER/L...
CER/L2525M22DT	25	25	150	31.3	25	32	22ER/L...
CER3232P16T	32	32	170	32	32	40	16ER...
CER3232P22T	32	32	170	32	32	40	22ER...
CER2525M27T	25	25	150	34	25	32	27ER...
CER3232P27T	32	32	170	34	32	40	27ER...

Note: A clamp set for CER/L type consists of a clamp and a clamping screw. A shim set for CER/L type consists of a shim and a shim screw. Standard shims for CER/L type can be used for both left hand and right hand toolholders. Use either of the sides depending on the hand.

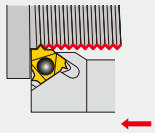
SPARE PARTS

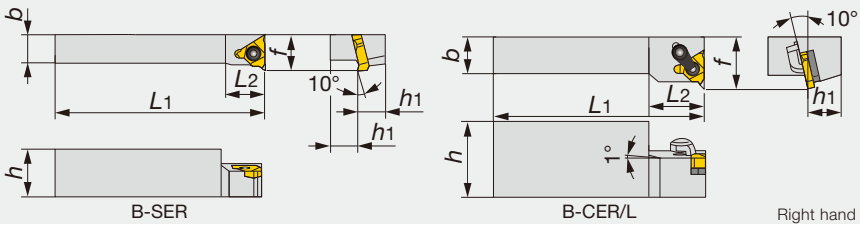
Designation	Clamp set	Clamping screw	Screw	Shim	Shim set	Wrench	Wrench 1	Wrench 2
CER/L**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
CER/L2525M22DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	P-4	T-15F	T-20F
CER3232P16T	CSP16	-	-	-	A16-1	-	T-15F	-
CER3232P22T	CSP22	-	-	-	NXE22-1	-	T-20F	-
CER**27T	CSP27	-	-	-	NXE27-1	P-4	-	-

TUNGTHREAD

B-S/CER/L

External threading toolholders for small lathe





Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	Insert
B-SER10H16	20	10	100	15	10	16	16ER...
B-SER12K16	24	12	125	18	12	18	16ER...
B-CER/L16M16	32	16	150	24	16	22	16ER/L...

SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench
B-SER**16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F

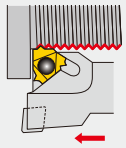
Reference pages

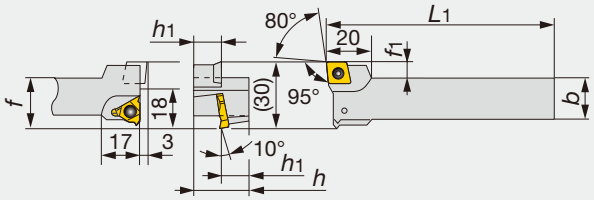
CER/L, B-S/CER/L: Inserts → **B384 -**, Standard cutting conditions → **B382**

TUNGTHREAD

BC-SER/L

Multi functional external threading toolholders for small lathe





Right hand (R) shown.

Designation	h	b	L1	h1	f	f1	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

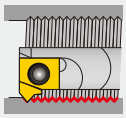
SPARE PARTS

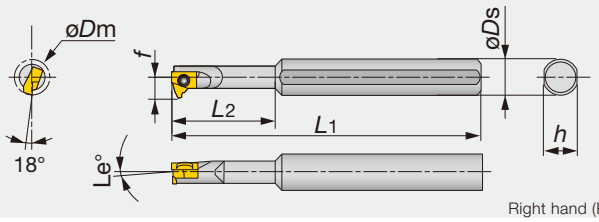
Designation	Clamping screw	Wrench
BC-SER12K16	CSTB-3.5	T-15F

TUNGTHREAD

SNR/L-2/3

Small bars for internal threading, Screw-on clamp





Right hand (R) ,carbide shank type shown.

Designation	Material	øDm	øDs	f	L1	L2	h	Le°	Insert
SNR0006H06-2	STEEL	8	8	4.7	100	18	7	2	6IR...
SNR0006H06-3	STEEL	8	8	4.7	100	18	7	3	6IR...
SNR0008H06-2	STEEL	10	8	5.7	100	18	7	2	6IR...
SNR0008H06-3	STEEL	10	8	5.7	100	18	7	3	6IR...
SNR0006K06SC-2	CARBIDE	8	8	4.7	125	30	7	2	6IR...
SNR0006K06SC-3	CARBIDE	8	8	4.7	125	30	7	3	6IR...
SNR0008K06SC-2	CARBIDE	10	8	5.7	125	18	7	2	6IR...
SNR0008K06SC-3	CARBIDE	10	8	5.7	125	18	7	3	6IR...

Note: When using the right hand insert (6IR** type), is used for the right hand toolholders (SNR** type).

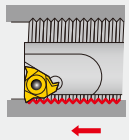
SPARE PARTS

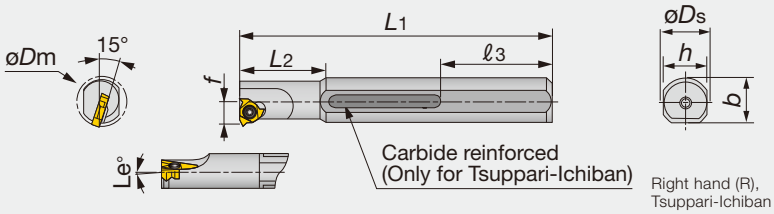
Designation	Clamping screw	Wrench
SNR0006H06...	CSTB-2L040	T-6F
SNR0008H06...	CSTB-2L	T-6F
SNR0006K06SC...	CSTB-2L040	T-6F
SNR0008K06SC...	CSTB-2L	T-6F

Reference pages

BC-SER/L: Inserts → **B104 -** (CC*T09T3...), **B384 -** (16ER...),
Standard cutting conditions → **B382**

SNR/L-2/3: Inserts → **B384 -**, Standard cutting conditions → **B382**





Right hand (R),
Tsuppari-Ichiban shank type shown.

Designation	Material	øDm	øDs	f	L1	L2	ℓ3	h	b	Le°	Insert
TSNR0016Q16	TSUPPARI	19	16	10.6	180	40	59	15	-	1	16IR...
TSNR0020R22	TSUPPARI	24	20	13.9	200	50	49	18	-	1	22IR...
SNR/L0010K11	STEEL	12	16	6.6	125	25	-	15	15.5	1	11IR/L...
SNR0010K11-2	STEEL	12	16	6.6	125	25	-	15	15.5	2	11IR...
SNR0010K11-3	STEEL	12	16	6.6	125	25	-	15	15.5	3	11IR...
SNR/L0013L11	STEEL	15	16	8.2	140	32.5	-	15	15.5	1	11IR/L...
SNR0013L11-2	STEEL	15	16	8.2	140	32.5	-	15	15.5	2	11IR...
SNR0013L11-3	STEEL	15	16	8.2	140	32.5	-	15	15.5	3	11IR...
SNR/L0016M16	STEEL	19	16	10.6	150	40	-	15	15.5	1	16IR/L...
SNR0016M16-2	STEEL	19	16	10.6	150	40	-	15	15.5	2	16IR...
SNR0016M16-3	STEEL	19	16	10.6	150	40	-	15	15.5	3	16IR...
SNR/L0020Q22	STEEL	24	20	13.9	180	50	-	18	19	1	22IR/L...
SNR0020Q22-2	STEEL	24	20	13.9	180	50	-	18	19	2	22IR...
SNR0020Q22-3	STEEL	24	20	13.9	180	50	-	18	19	3	22IR...
SNR0010M11SC	CARBIDE	13	10	7.4	150	24	-	9	-	1	11IR...
SNR0010M11SC-2	CARBIDE	13	10	7.4	150	24	-	9	-	2	11IR...
SNR0010M11SC-3	CARBIDE	13	10	7.4	150	24	-	9	-	3	11IR...
SNR0012P11SC	CARBIDE	15	12	8.5	170	28	-	11	-	1	11IR...
SNR0012P11SC-2	CARBIDE	15	12	8.5	170	28	-	11	-	2	11IR...
SNR0012P11SC-3	CARBIDE	15	12	8.5	170	28	-	11	-	3	11IR...
SNR/L0016R16SC	CARBIDE	20	16	11.9	200	35	-	15	-	1	16IR/L...
SNR0016R16SC-2	CARBIDE	20	16	11.9	200	35	-	15	-	2	16IR...

Note: When using a right or left hand insert, the right hand insert (**IR...type) is used for the right hand toolholders (SNR...type) and left hand insert (**IL...type) is used for the left hand toolholders (SNL...type).

SPARE PARTS

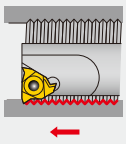
Designation	Clamping screw	Wrench
TSNR0016Q16	CSTB-3.5	T-15F
TSNR0020R22	CSTB-4	T-15F
SNR/L00**11...	CSTB-2.5	T-8F
SNR/L0016M16...	CSTB-3.5	T-15F
SNR/L0020Q22...	CSTB-4	T-15F
SNR00**11SC...	CSTB-2.5	T-8F
SNR/L0016R16SC...	CSTB-3.5	T-15F

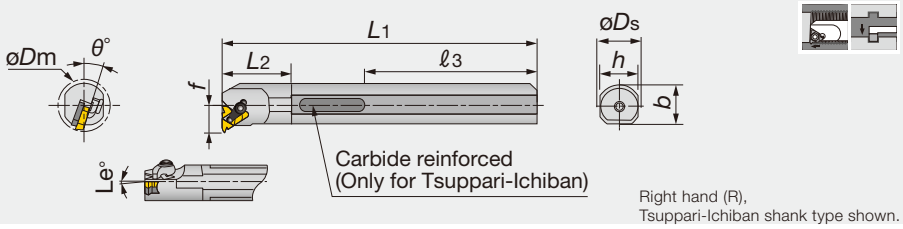
Reference pages

SNR/L: Inserts → **B384 -**, Standard cutting conditions → **B382**

CNR/L

Internal threading bars, Alternative clamping of screw-on or clamp-on(DT type only)





Right hand (R),
Tsuppari-Ichiban shank type shown.

Designation	Material	øDm	øDs	f	L1	L2	ℓ3	h	b	θ°	Le°	Insert
TCNR0020R16DT	TSUPPARI	24	20	14	200	30	49	18	-	15	1	16IR...
TCNR0025S16DT	TSUPPARI	29	25	16.5	250	38	64	23	-	15	1	16IR...
TCNR0025S22DT	TSUPPARI	30	25	18.2	250	38	64	23	-	15	1	22IR...
CNR/L0020P16	STEEL	24	20	14	170	30	-	18	19	15	1	16IR/L...
CNR/L0025R16	STEEL	29	25	16.5	200	38	-	23	24	15	1	16IR/L...
CNR/L0032S16	STEEL	37	32	20.1	250	48	-	30	31	15	1	16IR/L...
CNR/L0025R22	STEEL	30	25	18.2	200	38	-	23	24	15	1	22IR/L...
CNR/L0032S22	STEEL	38	32	21.9	250	48	-	30	31	15	1	22IR/L...
CNR0040T27	STEEL	46	40	26.9	300	60	-	37	38.5	10	1	27IR...

Note: A clamp set for CNR/L type toolholders consists of a clamp and a clamping screw. A shim set for CNR/L type toolholders consists of a shim and a shim fixing screw. Standard shims for CNR/L type toolholders are commonly used for right and left hand toolholders. The right hand insert (IR) is used for the right hand toolholder (CNR...) and left hand insert (IL) is used for left hand toolholder (CNL...).

SPARE PARTS

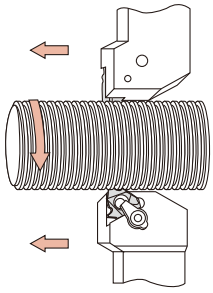
Designation	Clamp set	Clamping screw	Screw	Shim	Shim set R	Shim set L	Wrench	Wrench 1	Wrench 2
TCNR002**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	A16-1DT	-	-	P-3.5	T-15F	-
TCNR0025S22DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	-	P-4	T-15F	T-20F
CNR/L**16	CSP16	-	-	-	A16-1	A16-1	-	T-15F	-
CNR/L**22	CSP22	-	-	-	NXN22-1	NXE22-1	-	T-20F	-
CNR0040T27	CSP27	-	-	-	NXN27-1	NXE27-1	P-4	-	-

Reference pages

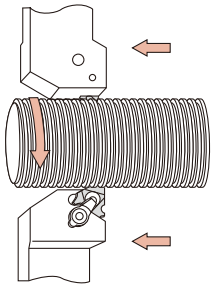
CNR/L: Inserts → **B384 -**, Standard cutting conditions → **B382**

External threading

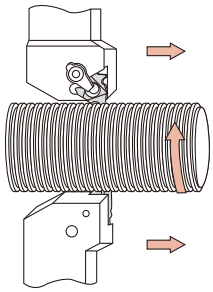
Right hand thread



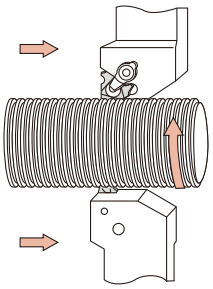
Work rotation	Regular
Feed direction	Push
Hand of toolholder	Right
Hand of insert	Right
Standard shim	①



Work rotation	Regular
Feed direction	Pull
Hand of toolholder	Left
Hand of insert	Left
Standard shim	④

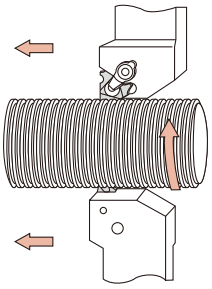


Work rotation	Reverse
Feed direction	Push
Hand of toolholder	Right
Hand of insert	Right
Standard shim	①

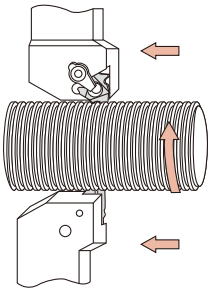


Work rotation	Reverse
Feed direction	Pull
Hand of toolholder	Left
Hand of insert	Left
Standard shim	④

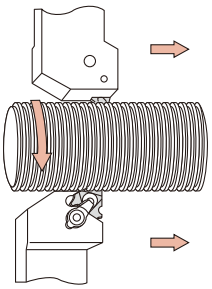
Left hand thread



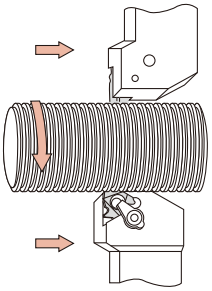
Work rotation	Reverse
Feed direction	Push
Hand of toolholder	Left
Hand of insert	Left
Standard shim	②



Work rotation	Reverse
Feed direction	Pull
Hand of toolholder	Right
Hand of insert	Right
Standard shim	③



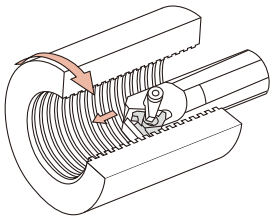
Work rotation	Regular
Feed direction	Push
Hand of toolholder	Left
Hand of insert	Left
Standard shim	②



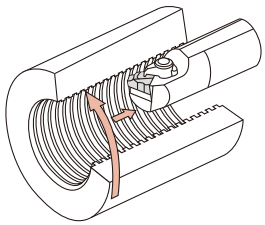
Work rotation	Regular
Feed direction	Pull
Hand of toolholder	Right
Hand of insert	Right
Standard shim	③

Internal threading

Right hand thread

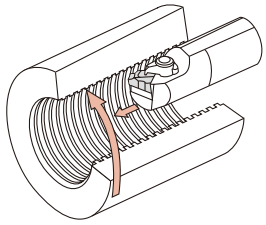


Work rotation	Regular
Feed direction	Push
Hand of toolholder	Right
Hand of insert	Right
Standard shim	②

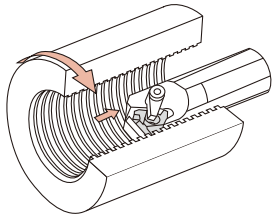


Work rotation	Reverse
Feed direction	Pull
Hand of toolholder	Left
Hand of insert	Left
Standard shim	③

Left hand thread



Work rotation	Reverse
Feed direction	Push
Hand of toolholder	Left
Hand of insert	Left
Standard shim	①



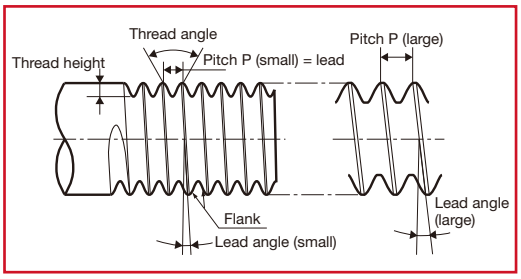
Work rotation	Regular
Feed direction	Pull
Hand of toolholder	Right
Hand of insert	Right
Standard shim	④

Standard shim

No.	New	No.	New
①	A16-1DT	②	A16-1DT
	A16-1		A16-1
	GX22-1DT		GX22-1DT
	NXE22-1		NXN22-1
	NXE27-1		NXN27-1
③	AE16-99DT	④	AN16-99DT
	AE16-99		AN16-99
	GXE22-99DT		GXN22-99DT
	NXE22-99		NXN22-99
	NXE27-99		NXN27-99

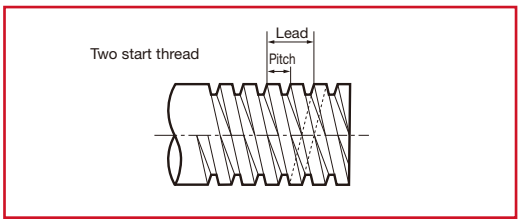
Relationship between lead, lead angle and pitch

1. Lead is the axial distance a screw advances in one rotation. In single start screw, the lead is equal to the pitch.
2. The inclination angle of a threaded groove is called lead angle. In screws of the same diameter, the lead angle increases as the pitch increases.
3. The side face of a completed thread groove is called flank. The distance between the crest and the root is called thread height.



Single and multi start thread

1. The single start thread has a single groove. Two start thread or three start thread has two grooves or three grooves respectively.
2. The pitch of multi start thread is the distance of adjoining groove.
3. When viewing the section of the multi start thread, the pitch is same as that of the single start thread. The lead of the two or three start thread is twice or three times the pitch. The multi start thread is mainly used for trapezoidal threads.



Tolerance class of threads

Tolerance classes of screw threads are expressed as follows:

Metric coarse external thread: 6h, 6g Metric coarse internal thread: 5H, 6H

These classes are ranked with tolerances of thread diameter, pitch, thread angle, etc. For fastening applications, 6H- and 6g-class (former JIS second class) threads, manufactured by cutting or rolling, are generally used. 5H- and 4h-class threads (former JIS first class) are generally finished by grinding.

For example, M8-6g means metric coarse external thread of 6g tolerance class.

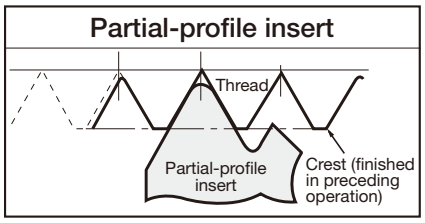
TAC threading insert

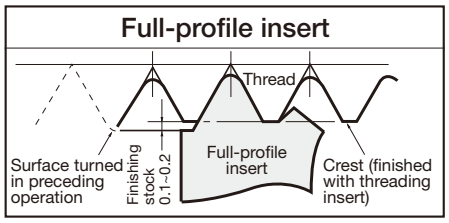
Difference between full-profile and partial-profile insert

Full-profile insert

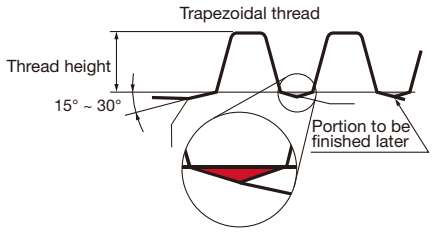
In the full-profile insert, the major diameter of the thread is finished by the profiled finishing edge as shown in Figure below. Therefore, about 0.1 mm of finishing stock must be left on the outer surface of the workpiece before threading. In trapezoidal threads, since slants of 15° to 30° are left on the crest of the thread as shown in Figure below, these portions must be finished by another tool later.

Full-profile insert could produce no burr and good thread by the profiled finishing edge.





When machining trapezoidal threads:



Partial-profile insert

Partial-profile inserts can not be used for finishing of the crest, but can be applied to a wide range of pitches.

For example

Designation	Pitch (mm)	TPI	Insert radius r_ε (mm)
16ERA60	0.5 ~ 1.5	48 ~ 16	0.06
16ERG60	1.75 ~ 3	14 ~ 8	0.22

Corner radii of inserts are fitted to the thread of the smallest pitch.

Difference between external and internal use inserts

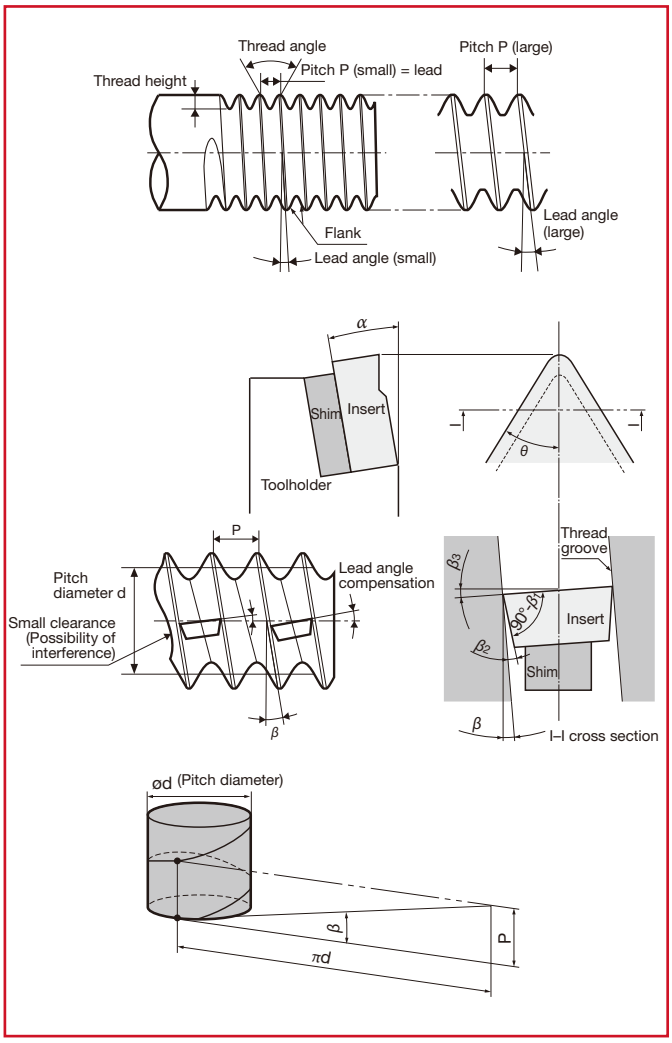
In full-profile inserts for metric and unified threads, the corner radius and thread height differ from those for the external and internal use insert respectively. Therefore, the right hand insert for external use and the left hand insert for internal use are not the same tool.
Since the rake angles of toolholders are -10° for external toolholders and -15° for internal toolholders, the external / internal toolholders can not be used for machining internal / external thread.
In Whitworth thread, though the external thread and internal thread have the same thread form, the external and internal toolholders are incompatible because of the different rake angle.

For example

Designation	Applicable inserts	Insert radius r_ε (mm)	Thread hight h (mm)	Rake angle of holders
16ER20ISO	External	0.25	1.52	-10°
16IL20ISO	Internal	0.14	1.3	-15°

Compensation for the lead angle and tool relief angle

When the pitch is large or the screw diameter is small, the lead angle becomes large and the effective relief angle on the advance flank side β_2 becomes small. In particular, this will cause shorter life of the insert in the case of trapezoidal screw with small flank angle. It is ideal without any interference for the thread cutting insert to have an equal relief angle on both right and left. Replace the shim so that the rake face of insert faces the thread groove direction (that is, $\beta = \beta_3$).



Calculating the lead angle

The lead angle is calculated as follows:

$$\beta = \tan^{-1}(\ell / \pi d) = \tan^{-1}(nP/\pi d)$$

β : Lead angle
ℓ : Lead
n : No. of threads
P : Pitch
d : Pitch diameter

Calculating the relief angle

The relief angle β_1 is calculated as follows:

$$\beta_1 = \tan^{-1}(\tan\theta \cdot \tan\alpha)$$

The α of a standard toolholder is 10° for external threading and 15° for internal threading.

Included angle 2θ	θ	β_1	
		External threading tool	Internal threading tool
60°	30°	5.8°	8.8°
55°	27.5°	5.2°	7.9°
30°	15°	2.7°	4.1°
29°	14.5°	2.6°	4°

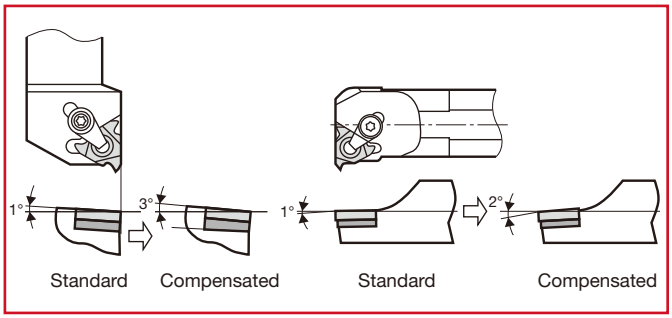
Accordingly, the effective relief angle is calculated as follows:

$$\beta_2 = \beta_1 + \beta_3 - \beta$$

β : Lead angle
β_2 : Effective relief angle
β_3 : Lead angle compensation value

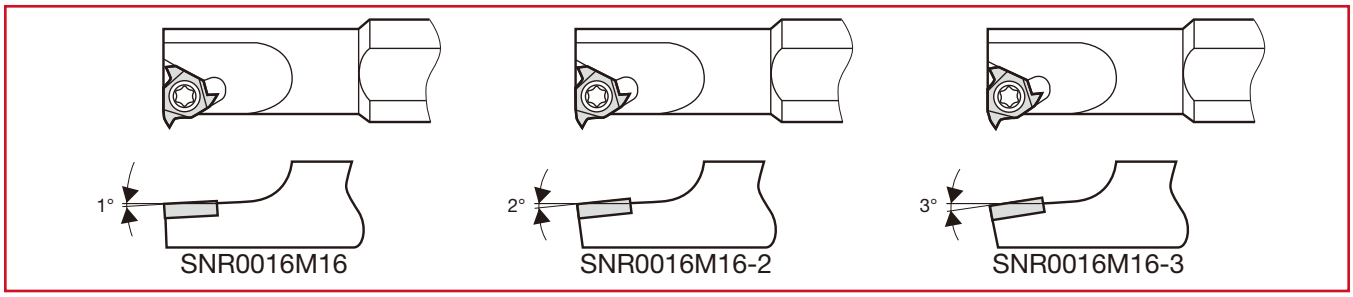
In other words, $\beta_1 = \beta_2$ when the thread lead angle is equal to the compensation value. Namely, the relief angle of the tool itself is equal to the effective relief angle. If the wrong compensation value is used, $\beta_1 > \beta_2$. The effective relief angle becomes smaller and cause the interference between the frank side of insert and the thread groove. Therefore, carry out com-pensation of the lead angle so that the following range is obtained:

±1° when the thread angle is 60° and 55°
±30° when the thread angle is 30° and 29°



Compensation of lead angle for shim less internal toolholders

When using internal threading toolholders without shim, the above-mentioned method can not be applied for lead angle compensation. Therefore, special toolholders for large lead angles are available as shown below. The final figure of the designation (-2 or -3) indicates 2° or 3° lead angle to be used respectively. The toolholders without these figures are for 1° lead angle.



Type of shim and the compensation value of lead angle

The designation of the shim and compensated lead angles are shown in the table.

Compensated lead angles	-2°	-1°	0°	1°	2°	3°	4°
Shim	□□□-98	□□□-99	□□□-0	□□□-1	□□□-2	□□□-3	□□□-4

Note: The last numeral of the shim designation is the compensated lead angle.

■ Toolholders and applicable shims

Screw-on / clamp-on dual toolholders

Toolholder designation	Shim	
	R	L
CER/L□□□□□16DT	AE16-□DT	AN16-□DT
CER/L□□□□□22DT	GXE22-□DT	GXN22-□DT
TCNR/L□□□□□16DT	AN16-□DT	AE16-□DT
TCNR/L□□□□□22DT	GXN22-□DT	GXE22-□DT

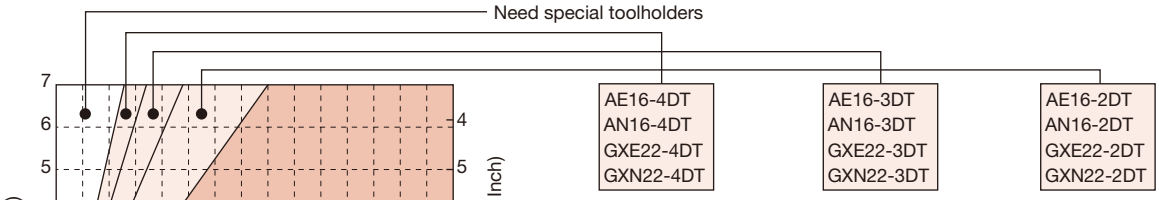
Note: Standard shim is AE16-1DT or GX22-1DT. Other types are optional.

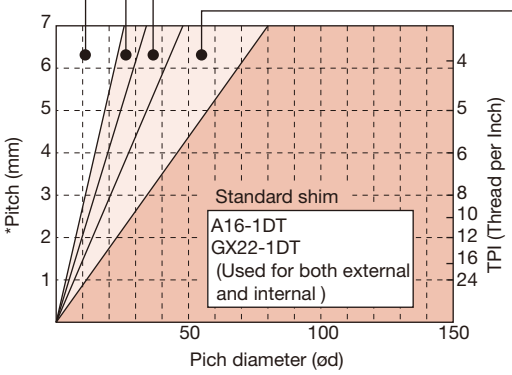
Clamp-on type toolholders

Toolholder designation	Shim	
	R	L
CER/L□□□□□16-T	AE16-□	AN16-□
CER/L□□□□□22-T	NXE22-□	NXN22-□
CER/L□□□□□27-T	NXE27-□	NXN27-□
CNR/L□□□□□16	AN16-□	AE16-□
CNR/L□□□□□22	NXN22-□	NXE22-□
CNR/L□□□□□27	NXN27-□	NXE27-□
B-CER/L□□□16	AE16-□	AN16-□

Note: Standard shim is □□□□□-1. Other types are optional.

Shim selection guide for screw-on / clamp-on dual ST-type tools



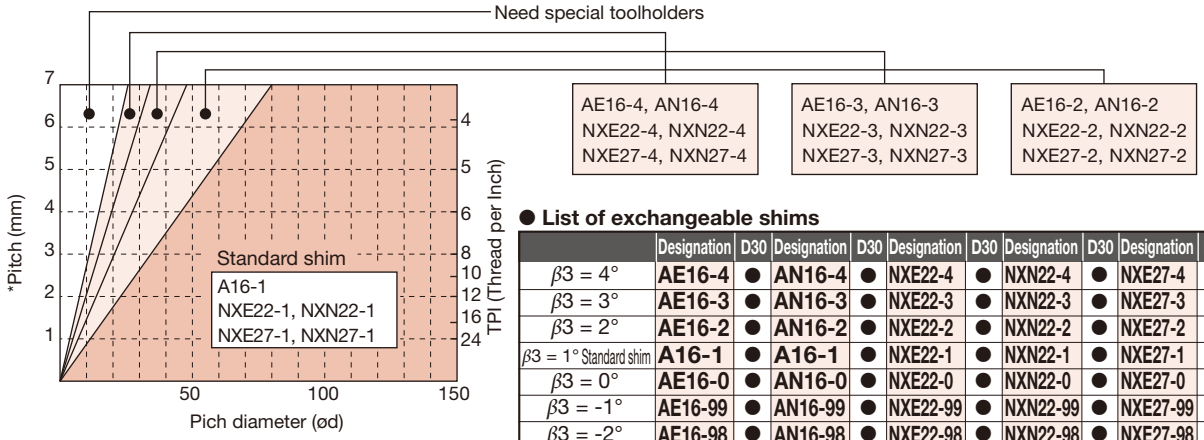


* For the multi start thread lead (multiplied by the pitch and No. of threads)

● List of exchangeable shims

	Designation	D30	Designation	D30	Designation	D30	Designation	D30
$\beta 3$ = 4°	**AE16-4DT**	●	**AN16-4DT**	●	**GXE22-4DT**	●	**GXN22-4DT**	●
$\beta 3$ = 3°	**AE16-3DT**	●	**AN16-3DT**	●	**GXE22-3DT**	●	**GXN22-3DT**	●
$\beta 3$ = 2°	**AE16-2DT**	●	**AN16-2DT**	●	**GXE22-2DT**	●	**GXN22-2DT**	●
$\beta 3$ = 1° Standard shim	**A16-1DT**	●	**A16-1DT**	●	**GX22-1DT**	●	**GX22-1DT**	●
$\beta 3$ = 0°	**AE16-0DT**	●	**AN16-0DT**	●	**GXE22-0DT**	●	**GXN22-0DT**	●
$\beta 3$ = -1°	**AE16-99DT**	●	**AN16-99DT**	●	**GXE22-99DT**	●	**GXN22-99DT**	●
$\beta 3$ = -2°	**AE16-98DT**	●	**AN16-98DT**	●	**GXE22-98DT**	●	**GXN22-98DT**	●
Applicable toolholders	CER--16DT TCNL--16DT		CEL--16DT TCNR--16DT		CER--22DT TCNL--22DT		CEL--22DT TCNR--22DT	

Shim selection guide for clamp-on type ST-tools



* For the multi start thread lead (multiplied by the pitch and No. of threads)

● List of exchangeable shims

	Designation	D30	Designation	D30	Designation	D30	Designation	D30	Designation	D30	Designation	D30
$\beta 3$ = 4°	**AE16-4**	●	**AN16-4**	●	**NXE22-4**	●	**NXN22-4**	●	**NXE27-4**		**NXN27-4**	
$\beta 3$ = 3°	**AE16-3**	●	**AN16-3**	●	**NXE22-3**	●	**NXN22-3**	●	**NXE27-3**		**NXN27-3**	
$\beta 3$ = 2°	**AE16-2**	●	**AN16-2**	●	**NXE22-2**	●	**NXN22-2**	●	**NXE27-2**		**NXN27-2**	
$\beta 3$ = 1° Standard shim	**A16-1**	●	**A16-1**	●	**NXE22-1**	●	**NXN22-1**	●	**NXE27-1**	●	**NXN27-1**	●
$\beta 3$ = 0°	**AE16-0**	●	**AN16-0**	●	**NXE22-0**	●	**NXN22-0**	●	**NXE27-0**		**NXN27-0**	
$\beta 3$ = -1°	**AE16-99**	●	**AN16-99**	●	**NXE22-99**	●	**NXN22-99**	●	**NXE27-99**		**NXN27-99**	
$\beta 3$ = -2°	**AE16-98**	●	**AN16-98**	●	**NXE22-98**	●	**NXN22-98**	●	**NXE27-98**		**NXN27-98**	
Applicable toolholders	CER--16T CNL--16 B-CER--16		CEL--16T CNR--16 B-CEL--16		CER--22T CNL--22		CEL--22T CNR--22		CER--27T CNL--27		CEL--27T CNR--27	

● : Line up

Selection of internal threading toolholders

Relation between internal toolholders and machinable threads

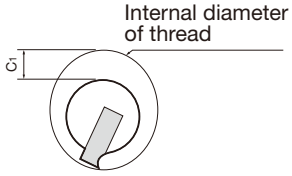
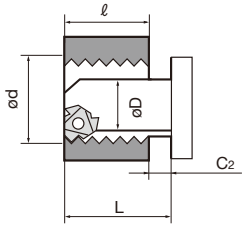
In the tables starting from next page, the relationships between toolholders, inserts, threads to be machined, and shims to be replaced are shown. In these tables, the criteria are set as follows.

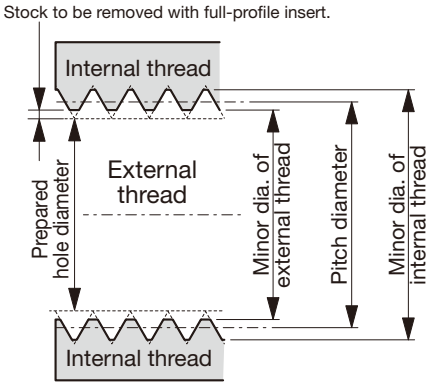
- **The minimum machining diameter.**
- **The L/D ratio of the toolholder.**
- **The lead angle of the thread.**
- **Cutting conditions**

Especially when machining near the minimum machining diameter, the compensation for the lead angle should be done carefully.
Moreover, in threading, because chips generally can not be broken into small pieces, the shank size should be selected in consideration of adequate clearance (C_1).

Symbols

- ◯ Recommended
- • Usable
- 2 Needs replacing of the shim. "2" indicates "Change to the shim for 2° lead angle".
- Unusable

Clearance C_1		$C_1 \geq 3$ mm (1 mm for 6IR insert holders)	
Overhang ratio L/D		**Steel shank**	L/D ≤ 2→◯
		Carbide shank	L/D ≤ 3→◯



How to use the tables

①Firstly, find the nominal thread diameter. Example: M35 X 1.5
②The table indicates that the lead angle is 0°48′.
③The Cat. No. of the insert to be used corresponds with IR15ISO.
④By following the row to the right, • and ◯ marks are found. The ◯ mark indicates the optimum toolholder type. The toolholders of • mark are usable, but less rigid because the shank diameter against the threading diameter is smaller than those of ◯ marked toolholder. In this example, CNR0025R16 and TCNR0020R16DT are the optimum toolholders. The insert Cat.No. is 16IR15ISO.
⑤In the case of M33 X 3 thread, the lead angle is 1°46′. By following the row to the right. 2 mark is found. This indicates that the shim should be replaced to 2° type. For calculation of the lead angle, refer to page B405.

Metric fine screw thread (ISO)

(For full size of this table, see page B409.)

Nominal size	Pitch	Effective diameter	Lead angle	Shank material	Steel shank																Carbide shank										"Tsuppari-Ichiban"					
				Insert size	6IR				11IR				16IR				22IR				6IR				11IR				16IR		16IR				22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	SNR0020Q22	SNR0020Q22-2	CNR0025R22	CNR0032S22	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)	TSNR0020R22	TCNR0025S22DT
M33×1.5	1.5	32.03	0°51′	IR15ISO					•		•		•		◯										•		•		•		•	◯				
M33×2	2	31.7	1°09′	IR20ISO	•		•		•		•		•		•	◯					•		•		•		•		•		•	◯				
M33×3	3	31.05	1°46′	IR30ISO											2																•	2				
M35×1.5	1.5	34.03	0°48′	IR15ISO					•		•		•		•	◯									•		•		•		•	◯				
M36×1.5	1.5	35.03	0°47′	IR15ISO					•		•		•		•	◯									•		•		•		•	◯				
M36×2	2	34.7	1°03′	IR20ISO											•	◯					•		•		•		•		•		•	◯				
M36×3	3	34.05	1°36′																												•	2				
M38×1.5	1.5	37																							•		•		•		•	•	◯			
																									•		•		•		•	•				

Selection of Internal Toolholders—Relationship between thread sizes, toolholders, and inserts—Part 1

Metric coarse screw thread (ISO)

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank																	Carbide shank								"Tsuppari-Ichiban"	
				Insert size	6IR				11IR				16IR		22IR					27IR		6IR				11IR		16IR		22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11-2	SNR0010K11-3	SNR0013L11-2	SNR0013L11-3	SNR0016M16-2	SNR0016M16-3	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	(CNR0040T22)	CNR0040T27	(CNR0050U27)	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC-2	SNR0010M11SC-3	SNR0016R16SC-2	(SNR0016R16SC-3)	TCNR0025S22DT	(TCNR0032T22DT)
M10	1.5	9.03	3°02′	IR15ISO																											
M11	1.5	10.03	2°44′	IR15ISO		○																	○								
M12	1.75	10.86	2°56′	IR175ISO		○																	○								
M14	2	12.7	2°52′	IR20ISO		•		○															•		○						
M16	2	14.7	2°29′	IR20ISO	•		○															•		○							
M18	2.5	16.38	2°47′	IR25ISO																											
M20	2.5	18.38	2°29′	IR25ISO																											
M22	2.5	20.38	2°14′	IR25ISO																											
M24	3	22.05	2°29′	IR30ISO																											
M27	3	25.05	2°11′	IR30ISO									○															○			
M30	3.5	27.73	2°18′	IR35ISO																											
M33	3.5	30.73	2°05′	IR35ISO											○																
M36	4	33.4	2°11′	IR40ISO											○																
M39	4	36.4	2°00′	IR40ISO											•		2													2	
M42	4.5	39.08	2°06′	IR45ISO											•		2													2	
M45	4.5	42.08	1°57′	IR45ISO											•		2													2	
M48	5	44.75	2°02′	IR50ISO											•		2	2												2	2
M52	5	48.75	1°52′	IR50ISO											•		2	2												2	2
M56	5.5	52.43	1°55′	IR55ISO																											
M60	5.5	56.43	1°47′	IR55ISO																2											
M64	6	60.1	1°49′	IR60ISO																2											
M68	6	64.1	1°42′	IR60ISO																2	2										

2 : Change the shim to NXN22-2

2 : Change the shim to NXN27-2

2 : Change the shim to GXN22-2DT

Metric fine screw thread (ISO)

1/4

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank										Carbide shank									
				Insert size	6IR				11IR						6IR				11IR					
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0010K11-3	SNR0013L11	SNR0013L11-2	SNR0013L11-3	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0010M11SC-3	SNR0012P11SC	SNR0012P11SC-2	SNR0012P11SC-3
M9×0.75	0.75	8.51	1°36′	IR075ISO																				
M9×1	1	8.32	2°11′	IR10ISO																				
M10×0.75	0.75	9.51	1°26′	IR075ISO																				
M10×1	1	9.35	1°57′	IR10ISO	○										○									
M10×1.25	1.25	9.19	2°29′	IR125ISO																				
M11×0.75	0.75	10.51	1°18′	IR075ISO																				
M11×1	1	10.35	1°46′	IR10ISO	○										○									
M12×1	1	11.35	1°36′	IR10ISO	•		○								•		○							
M12×1.25	1.25	11.19	2°02′	IR125ISO	○										○									
M12×1.5	1.5	11.03	2°29′	IR15ISO	○										○									
M14×1	1	13.35	1°22′	IR10ISO																				
M14×1.25	1.25	13.19	1°44′	IR125ISO	•		○								•		○							
M14×1.5	1.5	13.03	2°06′	IR15ISO	•		○								•		○							
M15×1	1	14.35	1°16′	IR10ISO																				
M15×1.5	1.5	14.03	1°57′	IR15ISO	•		○								•		○							
M16×1	1	15.35	1°11′	IR10ISO					○															
M16×1.5	1.5	15.03	1°49′	IR15ISO	•		○								•		○							
M17×1	1	16.35	1°07′	IR10ISO					○										○					
M17×1.5	1.5	16.03	1°42′	IR15ISO	•		•			○					•		○							
M18×1	1	17.35	1°03′	IR10ISO					○										○					
M18×1.5	1.5	17.03	1°36′	IR15ISO	•		•			○					•		•			○				
M18×2	2	16.7	2°11′	IR20ISO	•		•			○					•		•			○				
M20×1	1	19.35	0°57′	IR10ISO					•			○							•			○		
M20×1.5	1.5	19.03	1°26′	IR15ISO					•			○							•			○		
M20×2	2	18.7	1°57′	IR20ISO	•		•			○					•		•			•			○	

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

Metric fine screw thread (ISO)

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank													Carbide shank														"Tsuppari-Ichiban"	
				Insert size	6IR				11IR					16IR				6IR				11IR						16IR				16IR	
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0013L11-3	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0010M11SC-3	SNR0012P11SC	SNR0012P11SC-2	SNR0012P11SC-3	SNR0016R16SC	SNR0016R16SC-2	(SNR0016R16SC-3)	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT
M22×1	1	21.35	0°51′	IR10ISO					•		○											•			○						•		
M22×1.5	1.5	21.03	1°18′	IR15ISO	•		•		•		○							•		•		•			○								
M22×2	2	20.7	1°46′	IR20ISO	•		•			•		○						•		•			•			○							
M24×1	1	23.35	0°47′	IR10ISO							○			•								•			○					•			
M24×1.5	1.5	23.03	1°11′	IR15ISO	•		•				○			•				•		•		•			○					•			
M24×2	2	22.07	1°39′	IR20ISO	•		•			•		○						•		•			•			○							
M25×1	1	24.35	0°45′	IR10ISO					•		○			•											○			•		•			
M25×1.5	1.5	24.03	1°08	IR15ISO	•		•		•		○			•				•		•					○			•		•			
M25×2	2	23.7	1°32′	IR20ISO	•		•			•		○			•			•		•			•			○							
M26×1.5	1.5	25.03	1°06′	IR15ISO	•		•		•		•			○				•		•		•			•			•			○		
M27×1	1	26.35	0°42′	IR10ISO					•		•			○								•			•			•			○		
M27×1.5	1.5	26.03	1°03′	IR15ISO	•		•		•		•			○				•		•		•			•			•			○		
M27×2	2	25.7	1°25′	IR20ISO	•		•		•		•			○				•		•		•			•			•			○		
M28×1	1	27.35	0°40′	IR10ISO					•		•			○								•			•			•			○		
M28×1.5	1.5	27.03	1°01′	IR15ISO	•		•		•		•			○				•		•		•			•			•			○		
M28×2	2	26.7	1°22′	IR20ISO	•		•		•		•			○				•		•		•			•			•			○		
M30×1	1	29.35	0°37′	IR10ISO					•		•			○								•			•			•			○		
M30×1.5	1.5	29.03	0°57′	IR15ISO					•		•			○								•			•			•			○		
M30×2	2	28.7	1°16′	IR20ISO	•		•		•		•			○				•		•		•			•			•			○		
M30×3	3	28.05	1°57′	IR30ISO											○														○				
M32×1.5	1.5	31.03	0°53′	IR15ISO					•		•			○			○					•			•			•			•	○	
M32×2	2	30.07	1°11′	IR20ISO	•		•		•		•			○			○	•		•		•			•			•			•	○	

Metric fine screw thread (ISO)

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank															Carbide shank										"Tsuppari-Ichiban"				
				Insert size	6IR				11IR				16IR				22IR			6IR				11IR				16IR		16IR			22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	SNR0020Q22	SNR0020Q22-2	CNR0025R22	CNR0032S22	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)	TSNR0020R22	TCNR0025S22DT
M33×1.5	1.5	32.03	0°51′	IR15ISO					•		•		•		○									•		•		•		•	○				
M33×2	2	31.7	1°09′	IR20ISO	•		•		•		•		•		•	○						•		•		•		•		•	○				
M33×3	3	31.05	1°46′	IR30ISO											2															•	2				
M35×1.5	1.5	34.03	0°48′	IR15ISO					•		•		•		•	○								•		•		•		•	○				
M36×1.5	1.5	35.03	0°47′	IR15ISO					•		•		•		•	○								•		•		•		•	○				
M36×2	2	34.7	1°03′	IR20ISO	•		•		•		•				•	○						•		•		•		•		•	○				
M36×3	3	34.05	1°36′	IR30ISO											2															•	2				
M38×1.5	1.5	37.03	0°44′	IR15ISO					•		•		•		•	○								•		•		•		•	•	○			
M39×1.5	1.5	38.03	0°43′	IR15ISO					•		•		•		•	○								•		•		•		•	•	○			
M39×2	2	38.7	0°58′	IR20ISO					•		•		•		•	○								•		•		•		•	•	○			
M39×3	3	37.05	1°29′	IR30ISO									•		•	○												•		•	•	○			
M40×1.5	1.5	39.03	0°42′	IR15ISO					•		•		•		•	○								•		•		•		•	•	○			
M40×2	2	37.8	0°57′	IR20ISO					•		•		•		•	○								•		•		•		•	•	○			
M40×3	3	38.05	1°26′	IR30ISO									•		•	○												•		•	•	○			
M42×1.5	1.5	41.03	0°40′	IR15ISO					•		•		•		•	○								•		•		•		•	•	○			
M42×2	2	40.7	0°54′	IR20ISO					•		•		•		•	○								•		•		•		•	•	○			
M42×3	3	40.05	1°22′	IR30ISO									•		•	○												•		•	•	○			
M42×4	4	39.4	1°51′	IR40ISO																2														•	2
M45×1.5	1.5	44.03	0°37′	IR15ISO					•		•		•		•	•	○							•		•		•		•	•	○	○		
M45×2	2	43.7	0°50′	IR20ISO					•		•		•		•	•	○							•		•		•		•	•	○	○		
M45×3	3	43.05	1°16′	IR30ISO									•		•	•	○					•		•		•		•		•	•	○	○		
M45×4	4	42.4	1°43′	IR40ISO																2														•	2
M48×1.5	1.5	47.03	0°35′	IR15ISO					•		•		•		•	•	○							•		•		•		•	•	○	○		
M48×2	2	46.7	0°47′	IR20ISO					•		•		•		•	•	○							•		•		•		•	•	○	○		
M48×3	3	46.05	1°11′	IR30ISO									•		•	•	○											•		•	•	○	○		
M48×4	4	45.4	1°36′	IR40ISO															2															•	2

2 : Change the shim to AN16-2

2 : Change the shim to NXN22-2

2 : Change the shim to AN16-2DT

2 : Change the shim to GXN22-2DT

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

Metric fine screw thread (ISO)

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank																				Carbide shank								"Tsuppari-Ichiban"						
				Insert size	6IR				11IR				16IR						22IR					6IR				11IR				16IR		16IR				22IR		
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	(CNR0040T16)	(CNR0050U16)	SNR0020Q22	SNR0020Q22-2	CNR0025R22	CNR0032S22	(CNR0040T22)	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)	TSNR0020R22	TCNR0025S22DT	(TCNR0032T22DT)
M50×1.5	1.5	49.03	0°33′	IR15ISO					•		•		•		•	•	○	•										•		•		•		•	•	○	○			
M50×2	2	48.7	0°45′	IR20ISO					•		•		•		•	•	○											•		•		•		•	•	○	○			
M50×3	3	48.05	1°08′	IR30ISO									•		•	•	○															•		•	•	○	○			
M52×1.5	1.5	51.03	0°32′	IR15ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M52×2	2	50.7	0°43′	IR20ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M52×3	3	50.05	1°06′	IR30ISO									•		•	•	○	•														•		•	•	○	○			
M52×4	4	49.4	1°29′	IR40ISO																•	•	•	•															•	•	○
M55×1.5	1.5	54.03	0°30′	IR15ISO					•		•		•		•	•	○	•										•		•		•		•	•	○	○			
M55×2	2	53.7	0°41′	IR20ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M55×3	3	53.05	1°02′	IR30ISO									•		•	•	•	○														•		•	•	○	○			
M55×4	4	52.4	1°24′	IR40ISO																•	•	•	•	○														•	•	○
M56×1.5	1.5	55.03	0°30′	IR15ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M56×2	2	54.7	0°40′	IR20ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M56×3	3	54.05	1°01′	IR30ISO									•		•	•	•	○														•		•	•	○	○			
M56×4	4	53.4	1°22′	IR40ISO																•	•	•	•	○														•	•	○
M58×1.5	1.5	57.03	0°29′	IR15ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M58×2	2	56.7	0°39′	IR20ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M58×3	3	56.05	0°59′	IR30ISO									•		•	•	•	○														•		•	•	○	○			
M58×4	4	55.4	1°19′	IR40ISO																•	•	•	•	○														•	•	○
M60×1.5	1.5	59.03	0°28′	IR15ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M60×2	2	58.7	0°37′	IR20ISO					•		•		•		•	•	•	○										•		•		•		•	•	○	○			
M60×3	3	58.05	0°57′	IR30ISO									•		•	•	•	○														•		•	•	○	○			
M60×4	4	57.4	1°16′	IR40ISO																•	•	•	•	○														•	•	○

Unified coarse screw thread (UNC)

Nominal size	TPI	Pitch diameter	Lead angle	Shank material	Steel shank																		Carbide shank									"Tsuppari-Ichiban"	
				Insert size	11IR						16IR			22IR						27IR			11IR						16IR			22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0010K11	SNR0010K11-2	SNR0010K11-3	SNR0013L11	SNR0013L11-2	SNR0013L11-3	SNR0016M16	SNR0016M16-2	SNR0016M16-3	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	(CNR0040T22)	CNR0040T27	(CNR0050U27)	(CNR0063V27)	SNR0010M11SC	SNR0010M11SC-2	SNR0010M11SC-3	SNR0012P11SC	SNR0012P11SC-2	SNR0012P11SC-3	SNR0016R16SC	SNR0016R16SC-2	(SNR0016R16SC-3)	TCNR0025S22DT	(TCNR0032T22DT)
7/16-14UNC	14	9.93	3°20′	(IR14UN)																													
1/2-13UNC	13	11.43	3°07′	(IR13UN)																													
9/16-12UNC	12	12.91	2°59′	IR12UN																													
5/8-11UNC	11	14.38	2°56′	(IR11UN)																													
3/4-10UNC	10	17.4	2°40′	(IR10UN)																													
7/8-9UNC	9	20.39	2°31′	IR9UN																													
1-8UNC	8	23.34	2°29′	IR8UN								○																					
1 1/8-7UNC	7	26.22	2°31′	(IR7UN)																													
1 1/4-7UNC	7	29.39	2°15′	(IR7UN)											○																		
1 3/8-6UNC	6	32.17	2°24′	(IR6UN)											○																		
1 1/2-6UNC	6	35.35	2°11′	(IR6UN)											○		2															2	
1 3/4-5UNC	5	41.15	2°15′	(IR5UN)											○		2															2	
2-4 1/2UNC	4.5	47.14	2°11′	(IR45UN)																													
2 1/4-4 1/2UNC	4.5	53.49	1°55′	(IR45UN)																2													
2 1/2-4UNC	4	59.38	1°57′	(IR4UN)																2													
2 3/4-4UNC	4	65.73	1°46′	(IR4UN)																2	2												
3-4UNC	4	72.08	1°36′	(IR4UN)																2	2												
3 1/4-4UNC	4	78.43	1°29′	(IR4UN)																•	•	○											
3 1/2-4UNC	4	84.78	1°22′	(IR4UN)																•	•	○											
3 3/4-4UNC	4	91.13	1°16′	(IR4UN)																•	•	○											
4-4UNC	4	97.48	1°11′	(IR4UN)																•	•	○											

2 : Change the shim to NXN22-2

2 : Change the shim to NXN27-2

2 : Change the shim to GXN22-2DT

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

Unified fine screw thread (UNF)

Nominal size	TPI	Pitch diameter	Lead angle	Shank material	Steel shank										Carbide shank										"Tsuppari-Ichiban"		
				Insert size	6IR				11IR		16IR				6IR				11IR				16IR		16IR		
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11-2	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT
3/8-24UNF	24	8.84	2°11′	(IR24UN)																							
				IRA60																							
7/16-20UNF	20	10.29	2°15′	(IR20UN)																							
				IRA60	○										○												
1/2-20UNF	20	11.87	1°57′	(IR20UN)																							
				IRA60	•		○								•		○										
9/16-18UNF	18	13.37	1°55′	(IR18UN)																							
				IRA60	•		○								•		○										
5/8-18UNF	18	14.96	1°43′	(IR18UN)																							
				IRA60	•		○								•		○										
3/4-16UNF	16	18.02	1°36′	IR16UN					○											○							
7/8-14UNF	14	21.05	1°34′	IR14UN					•	○										•		○					
1-12UNF	12	24.03	1°36′	IR12UN								○												○			
1 1/8-12UNF	12	27.2	1°25′	IR12UN							○												○		○		
1 1/4-12UNF	12	30.38	1°16′	IR12UN							•		○										○		•	○	
1 3/8-12UNF	12	33.55	1°09′	IR12UN							•		•	○									○		•	•	○
1 1/2-12UNF	12	36.73	1°03′	IR12UN							•		•	○									○		•	•	○

Unified extra fine screw thread (UNEF)

Nominal size	TPI	Pitch diameter	Lead angle	Shank material	Steel shank											Carbide shank									"Tsuppari-Ichiban"		
				Insert size	6IR		11IR				16IR					6IR		11IR				16IR			16IR		
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0008H06-2	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	SNR0006H06SC-2	SNR0008H06SC-2	SNR0010K11	SNR0010K11-2	SNR0012L11	SNR0012L11-2	SNR0016M16	SNR0016M16-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT
3/8	32	9.01	1°61′	IR32UN																							
7/16	28	10.52	1°57′	IR28UN	○											○											
1/2	28	12.11	1°37′	IR28UN																							
9/16	24	13.6	1°42′	IR24UN																							
5/8	24	15.19	1°27′	IR24UN																							
11/16	24	16.77	1°15′	IR24UN			○											○									
3/4	20	18.22	1°27′	IR20UN			○											○									
13/16	20	19.81	1°17′	IR20UN			•		○									•		○							
7/8	20	21.4	1°08′	IR20UN			•		○									•		○							
15/16	20	22.99	1°01′	IR20UN			•		•		○							•		○				○			
1	20	24.57	0°94′	IR20UN			•		•		○							•		•		○		○			
1 1/16	18	26.07	0°99′	IR18UN			•		•		○							•		•		○		○			
1 1/8	18	27.66	0°93′	IR18UN			•		•		○							•		•		○		○			
1 3/16	18	29.25	0°88′	IR18UN			•		•		•		○					•		•		○		•	○		
1 1/4	18	30.83	0°84′	IR18UN			•		•		•		○					•		•		○		•	○		
1 5/16	18	32.42	0°79′	IR18UN			•		•		•		○					•		•		○		•	○		
1 3/8	18	34.01	0°76′	IR18UN			•		•		•		•	○				•		•		○		•	•	○	
1 7/16	18	35.6	0°72′	IR18UN			•		•		•		•	○				•		•		○		•	•	○	
1 1/2	18	37.18	0°69′	IR18UN			•		•		•		•	○				•		•		○		•	•	○	
1 9/16	18	38.77	0°66′	IR18UN			•		•		•		•	○				•		•		○		•	•	○	
1 5/8	18	40.36	0°64′	IR18UN			•		•		•		•	•	○			•		•		○		•	•	○	
1 11/16	18	41.95	0°61′	IR18UN			•		•		•		•	•	○			•		•		○		•	•	○	

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

Whitworth British Standard (BSW)

Nominal size	TPI	Pitch diameter	Lead angle	Shank material	Steel shank											Carbide shank		"Tsuppari-Ichiban"				
				Insert size	16IR						22IR					16IR		16IR			22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	CNR0032S16	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	SNR0016M16	SNR0016M16-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	TSNR0020R22	TCNR0025S22DT
7/16	14	9.95	3°32′	IR14W																		
1/2	12	11.34	3°40′	IR12W																		
9/16	12	12.93	2°98′	IR12W																		
5/8	11	14.4	2°92′	IR11W																		
11/16	11	15.98	2°63′	IR11W																		
3/4	10	17.42	2°66′	IR10W																		
7/8	9	20.42	2°52′	IR9W																		
1	8	23.37	2°48′	IR8W																		
1 1/8	7	26.25	2°52′	IR7W																		
1 1/4	7	29.43	2°25′	IR7W								○										
1 1/2	6	35.39	2°18′	IR6W								○										
1 3/4	5	41.2	2°25′	IR5W								•		2								2

2 : Change the shim to NXN22-2

2 : Change the shim to GXN22-2DT

Whitworth British Standard Fine (BSF)

Nominal size	TPI	Pitch diameter	Lead angle	Shank material	Steel shank													Carbide shank				"Tsuppari-Ichiban"				
				Insert size	6IR		11IR		16IR					22IR				6IR		16IR		16IR			22IR	
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0008H06-2	SNR0010K11	SNR0010K11-2	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	SNR0006H06SC-2	SNR0008H06SC-2	SNR0016M16	SNR0016M16-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	TSNR0020R22	TCNR0025S22DT
7/16	18	10.21	2°52′	IR18W																						
1/2	16	11.68	2°48′	IR16W	○													○								
9/16	16	13.27	2°18′	IR16W	•	○												•	○							
5/8	14	14.71	2°25′	IR14W																						
11/16	14	16.3	2°03′	IR14W				○																		
3/4	12	17.69	2°18′	IR12W																						
7/8	11	20.75	2°03′	IR11W																						
1	10	23.77	1°95′	IR10W						○																
1 1/8	9	26.77	1°92′	IR9W						○											○					
1 1/4	9	29.94	1°72′	IR9W						•		2									○		2			
1 3/8	8	32.89	1°76′	IR8W						•		2									○		2			
1 1/2	8	36.07	1°61′	IR8W						•		•	2								○		•	2		
1 5/8	8	39.24	1°48′	IR8W					•			•	○							○		•	•	○		
1 3/4	7	42.13	1°57′	IR7W											○		2									2
2	7	48.48	1°37′	IR7W										•			•	○							•	○
2 1/4	6	54.44	1°42′	IR6W										•			•	○							•	○
2 1/2	6	60.79	1°27′	IR6W										•			•	○							•	○
2 3/4	6	67.14	1°15′	IR6W										•			•	○							•	○
3	5	72.95	1°27′	IR5W										•			•	○							•	○
3 1/4	5	79.3	1°17′	IR5W										•			•	○							•	○

2 : Change the shim to AN16-2

2 : Change the shim to NXN22-2

2 : Change the shim to AN16-2DT

2 : Change the shim to GXN22-2DT

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

30° trapezoidal thread (TR)

1/2

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank															Carbide shank			"Tsuppari-Ichiban"						
				Insert size	16IR								22IR					27IR		16IR			16IR				22IR		
				Holder Cat. No. / Insert Cat. No.	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	CNR0032S16	CNR0040T16	CNR0050U16	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	CNR0040T27	(CNR0050U27)	SNR0016R16SC	SNR0016R16SC-2	(SNR0016R16SC-3)	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)	TSNR0020R22	TCNR0025S22DT	(TCNR0032T22DT)
TR22×3	3	20.5	2°40′	IR30TR																									
TR24×5	5	21.5	4°14′	IR50TR																									
TR24×3	3	22.5	2°26′	IR30TR																									
TR26×5	5	23.5	3°52′	IR50TR																									
TR26×3	3	24.5	2°14′	IR30TR		○																							
TR28×5	5	25.5	3°34′	IR50TR																									
TR28×3	3	26.5	2°04′	IR30TR		•															○								
TR30×6	6	27	4°03′	IR60TR																									
TR30×3	3	28.5	1°55′	IR30TR		•															○								
TR32×6	6	29	3°46′	IR60TR																									
TR32×3	3	30.5	1°48′	IR30TR		•		2													•			2					
TR34×6	6	31	3°32′	IR60TR																									
TR34×3	3	32.5	1°41′	IR30TR		•		2													•			2					
TR36×6	6	33	3°19′	IR60TR																									
TR36×3	3	34.5	1°35′	IR30TR		•		2	2												•			2	2				
TR38×3	3	36.5	1°30′	IR30TR		•		2	2												•			2	2				
TR40×3	3	38.5	1°25′	IR30TR	•			•	○											○				•	○				
TR42×3	3	40.5	1°21′	IR30TR	•			•	○											○				•	○				
TR44×3	3	42.5	1°17′	IR30TR	•			•	•	○										○				•	•	○			
TR46×3	3	44.5	1°14′	IR30TR	•			•	•	○										○				•	•	○			
TR48×3	3	46.5	1°11′	IR30TR	•			•	•	○										○				•	•	○			
TR50×3	3	48.5	1°08′	IR30TR	•			•	•	○										○				•	•	○			
TR52×3	3	50.5	1°05′	IR30TR	•			•	•	•	○									○				•	•	○			
TR55×3	3	53.5	1°01′	IR30TR	•			•	•	•	○									○				•	•	○			
TR60×3	3	58.5	0°56′	IR30TR	•			•	•	•	○									○				•	•	○			

2 : Change the shim to AN16-2

2 : Change the shim to AN16-2DT

30° trapezoidal thread (TR)

2/2

Nominal size	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank																		Carbide shank			"Tsuppari-Ichiban"						
				Insert size	16IR						22IR									27IR			16IR			16IR				22IR		
				Holder Cat. No. / Insert Cat. No.	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	CNR0032S16	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	(CNR0040T22)	(CNR0050U22)	(CNR0063V22)	CNR0040T27	(CNR0050U27)	(CNR0063V27)	SNR0016R16SC	SNR0016R16SC-2	(SNR0016R16SC-3)	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)	TSNR0020R22	TCNR0025S22DT	(TCNR0032T22DT)
TR65×4	4	63	1°09′	IR40TR							•			•	•	•	○												•	•	○
TR70×4	4	68	1°04′	IR40TR							•			•	•	•	○												•	•	○
TR75×4	4	73	1°00′	IR40TR							•			•	•	•	○												•	•	○
TR80×4	4	78	0°56′	IR40TR							•			•	•	•	•	○											•	•	○
TR85×4	4	83	0°53′	IR40TR							•			•	•	•	•	○											•	•	○
TR90×4	4	88	0°50′	IR40TR							•			•	•	•	•	○											•	•	○
TR95×4	4	93	0°47′	IR40TR							•			•	•	•	•	○											•	•	○
TR100×4	4	98	0°45′	IR40TR							•			•	•	•	•	○											•	•	○
TR105×4	4	103	0°42′	IR40TR							•			•	•	•	•	○											•	•	○
TR110×4	4	108	0°41′	IR40TR							•			•	•	•	•	○											•	•	○
TR115×6	6	112	0°59′	IR60TR															•	•	○										
TR120×6	6	117	0°56′	IR60TR															•	•	○										
TR125×6	6	122	0°54′	IR60TR															•	•	○										
TR130×6	6	127	0°52′	IR60TR															•	•	○										
TR135×6	6	132	0°50′	IR60TR															•	•	○										
TR140×6	6	137	0°48′	IR60TR															•	•	○										
TR145×6	6	142	0°46′	IR60TR															•	•	○										
TR150×6	6	147	0°45′	IR60TR															•	•	○										
TR155×6	6	152	0°43′	IR60TR															•	•	○										
TR160×6	6	157	0°42′	IR60TR															•	•	○										
TR165×6	6	162	0°41′	IR60TR															•	•	○										
TR170×6	6	167	0°39′	IR60TR															•	•	○										

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

Parallel pipe thread (G) This table is also applied to PF, Rp, and PS type threads.

Nominal size	TPI	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank													Carbide shank									"Tsuppari-Ichiban"			
					Insert size	6IR		11IR				16IR							6IR				11IR				16IR		16IR			
					Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0008H06-2	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	(CNR0040T16)	(CNR0050U16)	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)
G1/4	19	1.34	12.30	1°59′	IR19W	•	○												•		○											
G3/8	19	1.34	15.81	1°33′	IR19W	•	•		○										•		○											
G1/2	14	1.81	19.79	1°40′	IR14W				•		○													•		○						
G5/8	14	1.81	21.75	1°31′	IR14W				•		○													•		○						
G3/4	14	1.81	25.28	1°18′	IR14W			•		•		○											•		•		○		○			
G7/8	14	1.81	29.04	1°08′	IR14W			•		•		•		○									•		•		○		•	○		
G1	11	2.31	31.77	1°20′	IR11W							•		○													○		•	○		
G1-1/8	11	2.31	36.42	1°09′	IR11W							•		•	○												○		•	•	○	
G1-1/4	11	2.31	40.43	1°02′	IR11W							•		•	○												○		•	•	○	
G1-1/2	11	2.31	46.32	0°55′	IR11W							•		•	•	○											○		•	•	•	○
G1-3/4	11	2.31	52.27	0°48′	IR11W							•		•	•	•	○										○		•	•	•	○
G2	11	2.31	58.14	0°43′	IR11W							•		•	•	•	○										○		•	•	•	○
G2-1/4	11	2.31	64.23	0°39′	IR11W							•		•	•	•	•	○									○		•	•	•	○
G2-1/2	11	2.31	73.71	0°34′	IR11W							•		•	•	•	•	○									○		•	•	•	○
G2-3/4	11	2.31	80.06	0°32′	IR11W							•		•	•	•	•	○									○		•	•	•	○
G3	11	2.31	86.41	0°29′	IR11W									0	0	0	0	0												0	0	0
G3-1/2	11	2.31	98.85	0°26′	IR11W									0	0	0	0	0												0	0	0
G4	11	2.31	111.55	0°23′	IR11W									0	0	0	0	0												0	0	0
G4-1/2	11	2.31	124.25	0°20′	IR11W									0	0	0	0	0												0	0	0
G5	11	2.31	136.95	0°18′	IR11W									0	0	0	0	0												0	0	0
G6	11	2.31	162.35	0°16′	IR11W									0	0	0	0	0												0	0	0

0 : Change the shim to AN16-0 ← (CNR0020P16 – (CNR0050U16))

0 : Change the shim to AN16-0DT ← (TCNR0020R16DT – (TCNR0032T16DT))

Taper pipe thread (PT) This table is also applied to Rc type pipe thread.

Nominal size	TPI	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank														Carbide shank									"Tsuppari-Ichiban"			
					Insert size	6IR				11IR				16IR						6IR				11IR				16IR		16IR			
					Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0010K11	SNR0010K11-2	SNR0013L11	SNR0013L11-2	SNR0016M16	SNR0016M16-2	CNR0020P16	CNR0025R16	CNR0032S16	(CNR0040T16)	(CNR0050U16)	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0010M11SC	SNR0010M11SC-2	SNR0012P11SC	SNR0012P11SC-2	SNR0016R16SC	SNR0016R16SC-2	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)
PT1/4	19	1.34	12.30	1°59′	IR19PT	○														○												
PT3/8	19	1.34	15.81	1°33′	IR19PT	•		○												•		○										
PT1/2	14	1.81	19.79	1°40′	IR14PT						○														•		○					
PT3/4	14	1.81	25.28	1°19′	IR14PT									○										•		•		○		○		
PT1	11	2.31	31.77	1°20′	IR11PT									•		○												○		•	○	
PT1 1/4	11	2.31	40.43	1°02′	IR11PT									•		•	○											○		•	•	○	
PT1 1/2	11	2.31	46.32	0°55′	IR11PT									•		•	•	○										○		•	•	•	○
PT2	11	2.31	58.14	0°43′	IR11PT									•		•	•	•	○									○		•	•	•	○
PT2 1/2	11	2.31	73.71	0°34′	IR11PT									•		•	•	•	•	○								○		•	•	•	○
PT3	11	2.31	86.41	0°29′	IR11PT											0	0	0	0	0										0	0	0
PT3 1/2	11	2.31	98.85	0°26′	IR11PT											0	0	0	0	0										0	0	0
PT4	11	2.31	111.55	0°23′	IR11PT											0	0	0	0	0										0	0	0
PT5	11	2.31	136.95	0°18′	IR11PT											0	0	0	0	0										0	0	0
PT6	11	2.31	162.35	0°16′	IR11PT											0	0	0	0	0										0	0	0
PT7	11	2.31	187.75	0°13′	IR11PT											0	0	0	0	0										0	0	0
PT8	11	2.31	213.15	0°12′	IR11PT											0	0	0	0	0										0	0	0
PT9	11	2.31	238.55	0°11′	IR11PT											0	0	0	0	0										0	0	0
PT10	11	2.31	263.95	0°10′	IR11PT											0	0	0	0	0										0	0	0
PT12	11	2.31	314.75	0°08′	IR11PT											0	0	0	0	0										0	0	0

0 : Change the shim to AN16-0 ← (CNR0020P16 – (CNR0050U16))

0 : Change the shim to AN16-0DT ← (TCNR0020R16DT – (TCNR0032T16DT))

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

National taper pipe thread (NPT)

Nominal size	TPI	Pitch	Lead angle	Shank material	Steel shank												Carbide shank							"Tsuppari-Ichiban"			
				Insert size	6IR				16IR								6IR				16IR			16IR			
				Holder Cat. No. / Insert Cat. No.	SNR0006H06-2	SNR0006H06-3	SNR0008H06-2	SNR0008H06-3	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	CNR0032S16	(CNR0040T16)	(CNR0050U16)	SNR0006K06SC-2	SNR0006K06SC-3	SNR0008K06SC-2	SNR0008K06SC-3	SNR0016R16SC	SNR0016R16SC-2	(SNR0016R16SC-3)	TSNR0016Q16	TCNR0020R16DT	TCNR0025S16DT	(TCNR0032T16DT)
3/8NPT	18	1.41	1°37′	IR18NPT	•		○										•		○								
1/2NPT	14	1.81	1°40′	IR14NPT																							
3/4NPT	14	1.81	1°19′	IR14NPT					○												○			○			
1NPT	11.5	2.21	1°17′	IR115NPT					○			○									○			•	○		
1 1/4NPT	11.5	2.21	1°00′	IR115NPT					○			•	•	○							○			•	•	•	○
1 1/2NPT	11.5	2.21	0°52′	IR115NPT					○			•	•	○							○			•	•	•	○
2NPT	11.5	2.21	0°41′	IR115NPT					○			•	•	•	•	○					○			•	•	•	○
2 1/2NPT	8	3.175	0°50′	IR8NPT					○			•	•	•	•	○					○			•	•	•	○
3NPT	8	3.175	0°40′	IR8NPT					○			•	•	•	•	○					○			•	•	•	○
3 1/2NPT	8	3.175	0°35′	IR8NPT					○			•	•	•	•	○					○			•	•	•	○
4NPT	8	3.175	0°31′	IR8NPT					○			•	•	•	•	○					○			•	•	•	○
5NPT	8	3.175	0°25′	IR8NPT								0	0	0	0	0									0	0	0
6NPT	8	3.175	0°21′	IR8NPT								0	0	0	0	0									0	0	0
8NPT	8	3.175	0°16′	IR8NPT								0	0	0	0	0									0	0	0
10NPT	8	3.175	0°13′	IR8NPT								0	0	0	0	0									0	0	0
12NPT	8	3.175	0°11′	IR8NPT								0	0	0	0	0									0	0	0
14NPT	8	3.175	0°10′	IR8NPT								0	0	0	0	0									0	0	0
16NPT	8	3.175	0°09′	IR8NPT								0	0	0	0	0									0	0	0
18NPT	8	3.175	0°08′	IR8NPT								0	0	0	0	0									0	0	0
20NPT	8	3.175	0°07′	IR8NPT								0	0	0	0	0									0	0	0
24NPT	8	3.175	0°06′	IR8NPT								0	0	0	0	0									0	0	0

0 : Change the shim to AN16-0

0 : Change the shim to AN16-0DT

29° trapezoidal thread (ACME)

Nominal size	TPI	Pitch	Pitch diameter	Lead angle	Shank material	Steel shank													Carbide shank			"Tsuppari-Ichiban"			
					Insert size	16IR						22IR					27IR		16IR			16IR		22IR	
					Holder Cat. No. / Insert Cat. No.	SNR0016M16	SNR0016M16-2	SNR0016M16-3	CNR0020P16	CNR0025R16	CNR0032S16	SNR0020Q22	SNR0020Q22-2	SNR0020Q22-3	CNR0025R22	CNR0032S22	CNR0040T27	(CNR0050U27)	SNR0016R16SC	SNR0016R16SC-2	SNR0016R16SC-3	TSNR0016Q16	TCNR0020R16DT	TCNR0025S22DT	(TCNR0032T22DT)
3/8	12	2.12	8.465	4°33′	IR12ACME																				
7/16	12	2.12	10.053	3°50′	IR12ACME																				
1/2	10	2.54	11.43	4°03′	IR10ACME																				
5/8	8	3.18	14.274	4°03′	IR8ACME																				
3/4	6	4.23	16.934	4°33′	IR6ACME																				
7/8	6	4.23	20.109	3°50′	IR6ACME																				
1	5	5.08	22.86	4°03′	IR5ACME																				
1-1/8	5	5.08	26.035	3°33′	IR5ACME																				
1-1/4	5	5.08	29.21	3°10′	IR5ACME																				
1-3/8	4	6.35	31.75	3°39′	IR4ACME																				
1-1/2	4	6.35	34.925	3°19′	IR4ACME																				
1-3/4	4	6.35	41.275	2°48′	IR4ACME																				
2	4	6.35	47.625	2°26′	IR4ACME																				

Because this thread standard is characterized with large pitch and small diameter, (that is a large lead angle) the standard inserts and toolholders can not be used for machining this thread type. The application is limited to outside of the standard.

Note : The above tables show correspondence of internal toolholders at the time of setting clearance between thread and toolholder to 3 mm (1 mm in case of SN type) and the finishing stock to 0.1 mm.

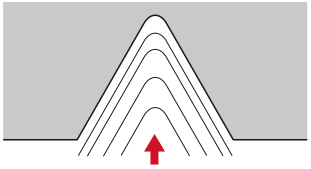
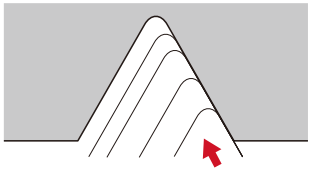
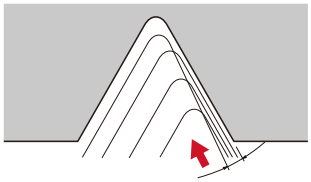
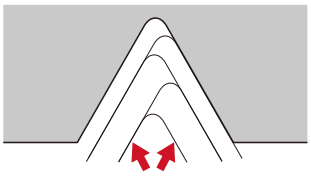
Threading guidelines

Determine the infeed per pass and number of threads whilst referring to the table and description below.

Pitch	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	5 ~
TPI	48	32	24	20	16	14	12	10	8	7	6	5.5	5 ~
No. of passes	4 ~ 6	4 ~ 7	4 ~ 8	5 ~ 9	6 ~ 10	7 ~ 12	7 ~ 12	8 ~ 14	10 ~ 16	11 ~ 18	11 ~ 18	11 ~ 19	12 ~ 24

Note:
- When using the full-profile insert, set the total infeed amount by taking the finish stock of 0.1mm into account.
- Set the first infeed to 150 ~ 200% of nose R and do not allow it to exceed 0.5 mm.
- The infeed amount during the final pass must be a minimum of 0.05 mm. No zero cuts should be made. (Extra small infeed or zero cutting of work hardened surfaces will reduce tool life.)
- The partial-profile insert or inside diameter insert has small nose R. Reduce the infeed per pass and increase the no. of passes.
- Regarding standard infeed per passes and no. of passes, please refer to our catalogue.

Infeed methods for threading tools

Infeed method	Features
 Straight infeed (radial infeed)	• Most simple and usual method Suitable for relatively small pitch threads of easily machinable material. • Chip contact length on right and left is longer, causing chattering, with increased load on the nose end. • When the half included angle is not symmetrical to the right and left, infeeding in the direction of 1/2 of the included angle will ensure equal machining with right and left cutting edges.
 Single edge infeed (flank infeed)	• Suitable for large pitch threads or easy to tear materials. Effectively prevents chattering. • Chips are discharged in one direction only. Satisfactory chip control. • Edge on the right (with zero infeed) tends to be worn heavily.
 Modified single-edge infeed (flank infeed)	• Suitable for large pitch threads or easy to tear materials. Effectively prevents chattering. • Chips are discharged in one direction only. Satisfactory chip control. • Edge on the right performs some cutting, therefore wear of this edge can thus be suppressed.
 Alternating flank infeed	• Suitable for large pitch threads or easy to tear material. Effectively prevents chattering. • Chips are discharged alternately in right and left directions, resulting possibly in entanglement. • Right and left edges are used alternately, ensuring uniform wear and extending tool life.

ISO metric full-profile inserts (for external)

Pitch	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	5	5.5	6
Height of thread	0.32	0.47	0.63	0.79	0.95	1.11	1.27	1.58	1.9	2.21	2.53	2.85	3.16	3.48	3.8
Total depth of cut	0.42	0.57	0.73	0.89	1.05	1.21	1.37	1.68	2	2.31	2.63	2.95	3.26	3.58	3.9
Number of passes 1	0.15	0.18	0.25	0.25	0.3	0.3	0.3	0.3	0.35	0.35	0.4	0.4	0.45	0.5	0.5
2	0.12	0.12	0.2	0.2	0.25	0.25	0.25	0.25	0.3	0.3	0.35	0.35	0.35	0.35	0.4
3	0.1	0.12	0.13	0.15	0.2	0.2	0.2	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.3
4	0.05	0.1	0.1	0.14	0.15	0.16	0.2	0.23	0.2	0.25	0.25	0.25	0.25	0.25	0.25
5		0.05	0.05	0.1	0.1	0.15	0.15	0.2	0.2	0.21	0.2	0.2	0.25	0.23	0.25
6				0.05	0.05	0.1	0.12	0.15	0.15	0.2	0.2	0.2	0.2	0.2	0.2
7						0.05	0.1	0.15	0.15	0.15	0.15	0.2	0.2	0.2	0.2
8							0.05	0.1	0.15	0.15	0.15	0.15	0.18	0.15	0.15
9								0.05	0.1	0.15	0.15	0.15	0.15	0.15	0.15
10									0.1	0.1	0.13	0.15	0.15	0.15	0.15
11									0.05	0.1	0.1	0.15	0.13	0.15	0.15
12										0.05	0.1	0.1	0.1	0.15	0.15
13											0.1	0.1	0.1	0.15	0.15
14											0.05	0.1	0.1	0.1	0.15
15												0.1	0.1	0.1	0.1
16												0.05	0.1	0.1	0.1
17													0.1	0.1	0.1
18													0.05	0.1	0.1
19														0.1	0.1
20														0.05	0.1
21															0.1
22															0.05
23															
24															

ISO metric full-profile inserts (for internal)

Pitch	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	5	5.5	6
Height of thread	0.29	0.43	0.58	0.72	0.87	1.01	1.16	1.45	1.74	2.03	2.32	2.61	2.9	3.19	3.48
Total depth of cut	0.39	0.53	0.68	0.82	0.97	1.11	1.26	1.55	1.84	2.13	2.42	2.71	3	3.29	3.58
Number of passes 1	0.08	0.1	0.14	0.15	0.2	0.2	0.2	0.25	0.25	0.3	0.3	0.35	0.35	0.4	0.4
2	0.07	0.09	0.13	0.13	0.16	0.18	0.18	0.22	0.22	0.25	0.25	0.25	0.25	0.25	0.25
3	0.07	0.08	0.11	0.12	0.14	0.16	0.17	0.2	0.2	0.22	0.22	0.22	0.22	0.22	0.22
4	0.06	0.08	0.1	0.11	0.12	0.14	0.16	0.18	0.18	0.2	0.2	0.2	0.2	0.2	0.2
5	0.06	0.07	0.08	0.1	0.12	0.12	0.14	0.16	0.16	0.18	0.18	0.18	0.2	0.2	0.19
6	0.05	0.06	0.07	0.09	0.1	0.1	0.12	0.15	0.15	0.16	0.18	0.18	0.18	0.18	0.18
7		0.05	0.05	0.07	0.08	0.09	0.1	0.1	0.14	0.14	0.16	0.16	0.16	0.16	0.17
8				0.05	0.05	0.07	0.08	0.1	0.13	0.13	0.14	0.14	0.14	0.14	0.16
9						0.05	0.06	0.08	0.12	0.12	0.14	0.14	0.14	0.14	0.15
10							0.05	0.06	0.1	0.11	0.12	0.12	0.13	0.13	0.14
11								0.05	0.08	0.1	0.12	0.12	0.13	0.13	0.14
12									0.06	0.1	0.1	0.12	0.12	0.13	0.13
13									0.05	0.07	0.1	0.11	0.12	0.12	0.13
14										0.05	0.09	0.1	0.12	0.12	0.13
15											0.07	0.1	0.11	0.12	0.12
16											0.05	0.09	0.1	0.12	0.12
17												0.08	0.1	0.1	0.12
18												0.05	0.1	0.1	0.1
19													0.08	0.1	0.1
20													0.05	0.1	0.1
21														0.08	0.1
22														0.05	0.1
23															0.08
24															0.05

Unified full-profile inserts

	For external							For internal						
TPI	24	20	18	16	14	12	8	24	20	18	16	14	12	8
Height of thread	0.67	0.8	0.89	1.01	1.15	1.34	2.01	0.61	0.74	0.82	0.92	1.05	1.23	1.84
Total depth of cut	0.77	0.9	0.99	1.11	1.25	1.44	2.11	0.71	0.84	0.92	1.02	1.15	1.33	1.94
Number of passes 1	0.25	0.25	0.28	0.3	0.3	0.3	0.35	0.2	0.2	0.2	0.2	0.25	0.25	0.3
2	0.22	0.2	0.23	0.25	0.25	0.25	0.3	0.16	0.16	0.18	0.18	0.2	0.2	0.25
3	0.15	0.16	0.18	0.18	0.23	0.21	0.25	0.12	0.13	0.15	0.16	0.18	0.18	0.22
4	0.1	0.14	0.15	0.15	0.18	0.18	0.22	0.1	0.12	0.14	0.14	0.16	0.16	0.2
5	0.05	0.1	0.1	0.1	0.14	0.15	0.2	0.08	0.1	0.1	0.11	0.13	0.13	0.18
6		0.05	0.05	0.08	0.1	0.12	0.2	0.05	0.08	0.1	0.1	0.1	0.1	0.16
7				0.05	0.05	0.1	0.16		0.05	0.05	0.08	0.08	0.1	0.14
8						0.08	0.16				0.05	0.05	0.08	0.12
9						0.05	0.12						0.08	0.12
10							0.1						0.05	0.1
11							0.05							0.1
12														0.05
13														
14														

Whitworth full-profile inserts

	For external									For internal								
TPI	20	19	18	16	14	12	11	10	8	20	19	18	16	14	12	11	10	8
Height of thread	0.83	0.88	0.92	1.04	1.19	1.39	1.51	1.66	2.08	0.83	0.88	0.92	1.04	1.19	1.39	1.51	1.66	2.08
Total depth of cut	0.93	0.98	1.02	1.14	1.29	1.49	1.61	1.76	2.18	0.93	0.98	1.02	1.14	1.29	1.49	1.61	1.76	2.18
Number of passes 1	0.25	0.28	0.3	0.3	0.3	0.3	0.3	0.35	0.35	0.2	0.2	0.22	0.22	0.25	0.25	0.25	0.3	0.35
2	0.2	0.22	0.24	0.25	0.25	0.25	0.25	0.3	0.3	0.18	0.18	0.18	0.18	0.21	0.21	0.21	0.25	0.3
3	0.18	0.18	0.18	0.18	0.23	0.2	0.2	0.23	0.25	0.16	0.16	0.17	0.17	0.2	0.2	0.2	0.22	0.25
4	0.15	0.15	0.15	0.14	0.2	0.18	0.18	0.2	0.23	0.14	0.16	0.16	0.16	0.18	0.18	0.18	0.2	0.22
5	0.1	0.1	0.1	0.12	0.16	0.15	0.15	0.15	0.22	0.12	0.13	0.14	0.14	0.16	0.16	0.16	0.16	0.2
6	0.05	0.05	0.05	0.1	0.1	0.14	0.14	0.14	0.2	0.08	0.1	0.1	0.12	0.14	0.14	0.14	0.14	0.18
7				0.05	0.05	0.12	0.12	0.12	0.18	0.05	0.05	0.05	0.1	0.1	0.1	0.12	0.12	0.16
8						0.1	0.12	0.12	0.16				0.05	0.05	0.1	0.1	0.12	0.14
9						0.05	0.1	0.1	0.14						0.1	0.1	0.1	0.12
10							0.05	0.05	0.1						0.05	0.1	0.1	0.11
11									0.05							0.05	0.05	0.1
12																		0.05
13																		
14																		
15																		

30° Trapezoidal (TR) inserts

		For external					For internal				
Pitch		2	3	4	5	6	2	3	4	5	6
Height of thread		1.25	1.75	2.25	2.75	3.5	1.25	1.75	2.25	2.75	3.5
Total depth of cut		1.35	1.85	2.35	2.85	3.6	1.35	1.85	2.35	2.85	3.6
Number of passes	1	0.25	0.25	0.3	0.3	0.3	0.2	0.22	0.25	0.25	0.25
	2	0.2	0.22	0.25	0.25	0.25	0.18	0.2	0.22	0.22	0.22
	3	0.2	0.2	0.22	0.2	0.23	0.18	0.18	0.2	0.2	0.21
	4	0.18	0.18	0.2	0.2	0.2	0.16	0.16	0.2	0.18	0.2
	5	0.15	0.17	0.18	0.18	0.18	0.15	0.16	0.17	0.18	0.18
	6	0.12	0.16	0.16	0.16	0.18	0.13	0.16	0.16	0.16	0.18
	7	0.1	0.14	0.15	0.16	0.16	0.1	0.14	0.16	0.16	0.16
	8	0.1	0.14	0.14	0.15	0.16	0.1	0.14	0.14	0.15	0.16
	9	0.05	0.12	0.14	0.14	0.16	0.1	0.12	0.14	0.14	0.16
	10		0.12	0.12	0.14	0.16	0.05	0.12	0.12	0.14	0.16
	11		0.1	0.12	0.14	0.16		0.1	0.12	0.14	0.16
	12		0.05	0.12	0.12	0.15		0.1	0.12	0.12	0.15
	13			0.1	0.12	0.15		0.05	0.1	0.12	0.15
	14			0.1	0.12	0.15			0.1	0.12	0.15
	15			0.05	0.12	0.14			0.1	0.12	0.14
	16				0.1	0.14			0.05	0.1	0.14
	17				0.1	0.12				0.1	0.12
	18				0.1	0.12				0.1	0.12
	19				0.05	0.12				0.1	0.12
	20					0.12				0.05	0.12
	21					0.1					0.1
	22					0.1					0.1
	23					0.05					0.1
	24										0.05
	25										
	26										

29° Trapezoidal (TR) inserts

		For external			For internal		
TPI		8	6	5	8	6	5
Height of thread		1.88	2.41	2.92	1.88	2.41	2.92
Total depth of cut		1.98	2.51	3.02	1.98	2.51	3.02
Number of passes	1	0.25	0.25	0.25	0.22	0.22	0.22
	2	0.22	0.22	0.22	0.2	0.2	0.2
	3	0.2	0.2	0.2	0.18	0.18	0.18
	4	0.18	0.18	0.18	0.16	0.18	0.18
	5	0.16	0.17	0.18	0.16	0.16	0.16
	6	0.16	0.16	0.16	0.16	0.15	0.16
	7	0.16	0.16	0.16	0.15	0.15	0.15
	8	0.14	0.14	0.14	0.14	0.14	0.14
	9	0.14	0.14	0.14	0.14	0.14	0.14
	10	0.12	0.14	0.14	0.12	0.14	0.14
	11	0.1	0.14	0.14	0.1	0.14	0.14
	12	0.1	0.12	0.14	0.1	0.12	0.14
	13	0.05	0.12	0.12	0.1	0.12	0.12
	14		0.12	0.12	0.05	0.12	0.12
	15		0.1	0.12		0.1	0.12
	16		0.1	0.12		0.1	0.12
	17		0.05	0.12		0.1	0.12
	18			0.12		0.05	0.12
	19			0.1			0.1
	20			0.1			0.1
	21			0.05			0.1
	22						0.05
	23						
	24						
	25						
	26						

PT full-profile inserts

		For external				For internal		
TPI		28	19	14	11	19	14	11
Height of thread		0.6	0.86	1.16	1.48	0.86	1.16	1.48
Total depth of cut		0.7	0.96	1.26	1.58	0.96	1.26	1.58
Number of passes	1	0.25	0.28	0.3	0.3	0.22	0.25	0.25
	2	0.2	0.2	0.25	0.25	0.2	0.22	0.22
	3	0.1	0.18	0.2	0.22	0.18	0.18	0.18
	4	0.1	0.15	0.15	0.18	0.16	0.14	0.18
	5	0.05	0.1	0.11	0.15	0.1	0.12	0.15
	6		0.05	0.1	0.12	0.05	0.1	0.13
	7			0.1	0.11	0.05	0.1	0.12
	8			0.05	0.1		0.1	0.1
	9				0.1		0.05	0.1
	10				0.05			0.1
	11							0.05
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							

NPT full-profile inserts

		For external				For internal		
TPI		18	14	11.5	8	14	11.5	8
Height of thread		1.14	1.47	1.79	2.58	1.47	1.79	2.58
Total depth of cut		1.24	1.57	1.89	2.68	1.57	1.89	2.68
Number of passes	1	0.2	0.25	0.25	0.3	0.22	0.22	0.25
	2	0.18	0.22	0.22	0.25	0.2	0.2	0.2
	3	0.17	0.2	0.2	0.2	0.18	0.18	0.2
	4	0.16	0.18	0.18	0.2	0.18	0.18	0.2
	5	0.14	0.17	0.18	0.2	0.16	0.16	0.2
	6	0.12	0.16	0.17	0.2	0.14	0.16	0.2
	7	0.12	0.12	0.16	0.18	0.12	0.16	0.18
	8	0.1	0.12	0.14	0.18	0.12	0.14	0.18
	9	0.05	0.1	0.12	0.16	0.1	0.12	0.16
	10		0.05	0.12	0.16	0.1	0.12	0.16
	11			0.1	0.14	0.05	0.1	0.14
	12			0.05	0.14		0.1	0.14
	13				0.12		0.05	0.12
	14				0.1			0.1
	15				0.1			0.1
	16				0.05			0.1
	17							0.05
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							

Designation System for TAC Threading Tools (TT-type)

Insert

TT	R	42	M	-005
	①	②	③	④

① Hand	
R	Right
L	Left

② Insert size (mm)	
Inscribed circle	12.7
Thickness	3.2

③ Thread type	
M	60° thread angle
W	55° thread angle

④ Corner radius (mm)	
Blank	0
-005	0.05

Toolholder

TT-	20	20	R	E
	①	②	③	④

① Shank height (mm)

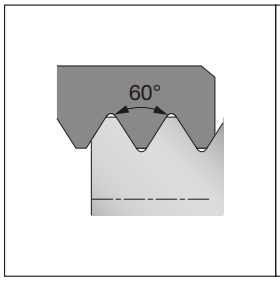
② Shank width (mm)

③ Hand	
R	Right
L	Left

④ External or Internal	
E	External
I	Internal

TT-type Insert

60° thread angle

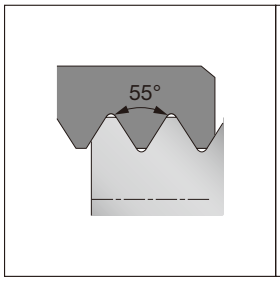


Partial-profile insert for external and internal threads

Pitch	TPI	Hand of cut	Designation	Grade		ød	s	θ°	Applicable toolholders
				Cermet NS9530	Uncoated TH10				
≤ 3	≥ 8	R	**TTR42M-005**	●	●	12.7	3.2	60	TT-****RE/LI
≤ 3	≥ 8	L	**TTL42M-005**	●	●	12.7	3.2	60	TT-****LE/RI

TT-type Insert

55° thread angle



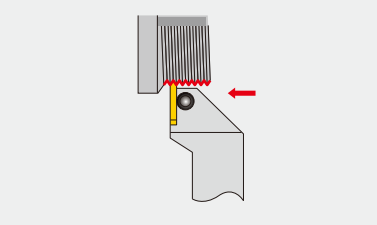
Partial-profile insert for external and internal threads

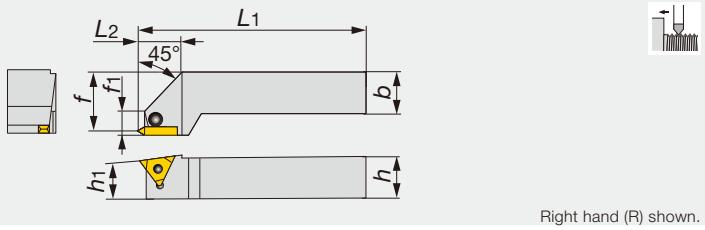
Pitch	TPI	Hand of cut	Designation	Grade		ød	s	θ°	Applicable toolholders
				Cermet NS9530	Uncoated TH10				
≤ 3	≥ 8	R	**TTR42W-005**	●	●	12.7	3.2	55	TT-****RE/LI
≤ 3	≥ 8	L	**TTL42W-005**	●	●	12.7	3.2	55	TT-****LE/RI

● : Line up / Packing Quantity = 5 pcs.

TT-R/LE

"TT type"External threading toolholders, pin lock





Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	f1	Insert
TT-2525R/LE	25	25	150	25	25	32.	15	TTR/L42...

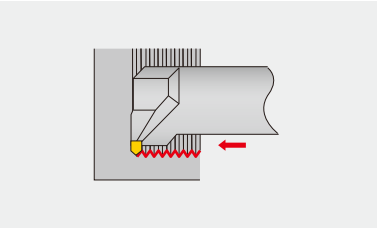
SPARE PARTS

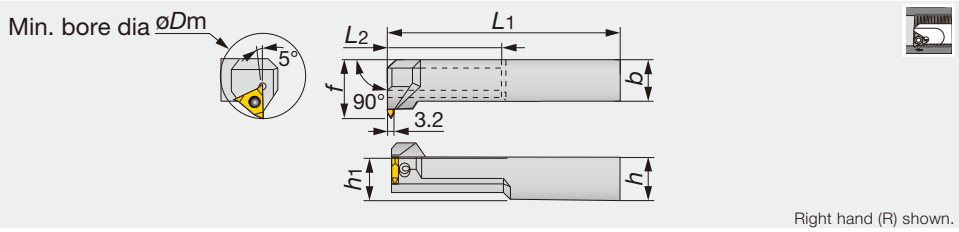
Designation	Clamp	Right-left screw	Wrench
TT-2525R/LE	CP91	DS-6	P-3

TUNGTHREAD

TT-R/LI

"TT type"Internal threading toolholders, pin lock





Right hand (R) shown.

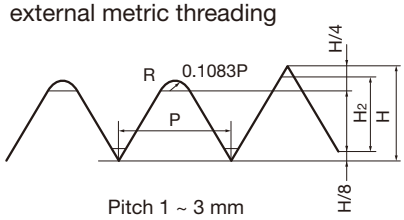
Designation	øDm	h	b	L1	L2	h1	f	Insert
TT-2525RI	50	25	25	200	70	25	35	TTL42...

Notes : The left hand insert is used for right hand toolholders.

SPARE PARTS

Designation	Clamp	Right-left screw	Wrench
TT-2525RI	CP91	DS-6	P-3

- Relationship between pitch, depth of cut and number of passes for external metric threading

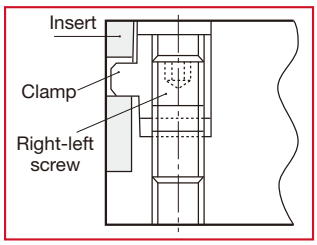


Pitch 1 ~ 3 mm

Note: Maximum machinable pitch is 3 mm.

	P	1	1.25	1.5	1.75	2	2.5	3
	H_2	0.6	0.76	0.92	1.09	1.25	1.57	1.9
	H	0.866	1.083	1.299	1.516	1.732	2.165	2.598
Number of passes	1	0.25	0.3	0.3	0.3	0.35	0.4	0.4
	2	0.15	0.2	0.25	0.25	0.25	0.3	0.35
	3	0.1	0.1	0.15	0.2	0.2	0.25	0.28
	4	0.05	0.06	0.1	0.1	0.16	0.2	0.2
	5	0.05	0.06	0.05	0.1	0.1	0.15	0.2
	6		0.06	0.05	0.07	0.07	0.1	0.13
	7			0.02	0.05	0.05	0.07	0.1
	8				0.02	0.02	0.05	0.1
	9					0.02	0.03	0.05
	10						0.02	0.05
	11							0.02
	12							0.02

● Part assembly

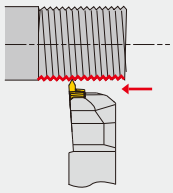


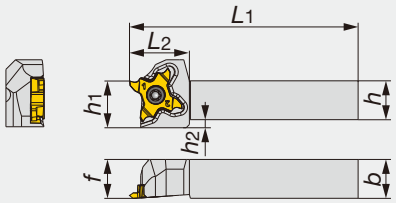
Reference pages

TT-R/LE, TT-R/LI: Inserts → **B419**

STCR/L-18

Precision threading tools with uniquely shaped insert for swiss type machine, automatic and general lathes





Right hand (R) shown.

Designation	h	b	L1	L2	h1	f	h2	Insert
STCR/L1010X18	10	10	120	18.5	10	10	4.5	TC*18...
STCR/L1212F18	12	12	85	18.5	12	12	2.5	TC*18...
STCR/L1212X18	12	12	120	18.5	12	12	2.5	TC*18...
STCR/L1616X18	16	16	120	18.5	16	16	-	TC*18...
STCR/L2020H18	20	20	100	18.5	20	20	-	TC*18...
STCR/L2020X18	20	20	120	23	20	25	-	TC*18...
STCR/L2525Z18	25	25	135	23	25	30	-	TC*18...

- The right hand insert (TCT18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TCL18...) is used for the left hand toolholders (STCL...).

SPARE PARTS

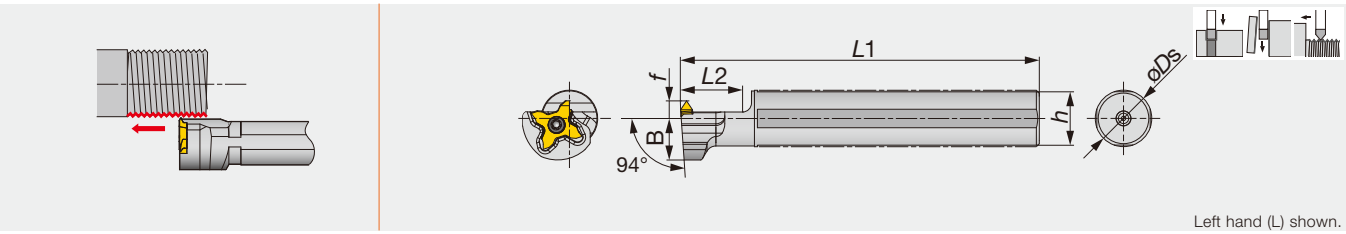
Designation	Clamping screw	Wrench
STCR...	CSTC-4L100DL	T-1008/5
STCL...	CSTC-4L100DR	T-1008/5

Reference pages

STCR/L-18: Inserts, Standard cutting conditions → **B423**

JS-STCL18

Precision threading tools with uniquely shaped insert for swiss type machine,automatic and general lathes



Left hand (L) shown.

Designation	øDs	L1	L2	h	B	f	Insert
JS14H-STCL18	14	100	20	13	14	6	TC*18R...
JS159F-STCL18	15.875	85	20	15	14	6	TC*18R...
JS16F-STCL18	16	85	20	15	14	6	TC*18R...
JS19G-STCL18	19.05	90	20	18	14	6	TC*18R...
JS19X-STCL18	19.05	120	20	18	14	6	TC*18R...
JS20G-STCL18	20	90	20	19	14	6	TC*18R...
JS20X-STCL18	20	120	20	19	14	6	TC*18R...
JS22X-STCL18	22	120	20	21	12.25	10	TC*18R...
JS25H-STCL18	25	100	20	24	12.25	10	TC*18R...
JS254X-STCL18	25.4	120	20	24	12.25	10	TC*18R...

- The right hand insert (TCT18R...) is used for the left hand toolholders (STCL...)

SPARE PARTS

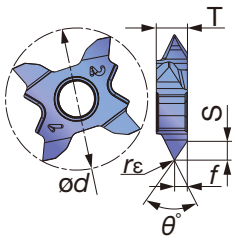
Designation	Clamping screw	Wrench
JS**STCL18	CSTC-4L100DL	T-1008/5

Reference pages

JS-STCL18: Inserts, Standard cutting conditions → **B423**

INSERT

TCT18R/L(For Threading)



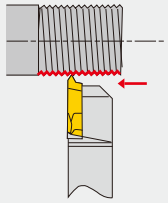
Designation	Coated AH725 R	Coated AH725 L	Pitch min	Pitch max	*f*	S	*rε*	*θ°*	T	*ød*
TCT18R/L-60N-010	●	●	0.8	3	1.6	2.67	0.1	60	4	18
TCT18R/L-60N-020	●	●	1.5	3	1.6	2.57	0.2	60	4	18

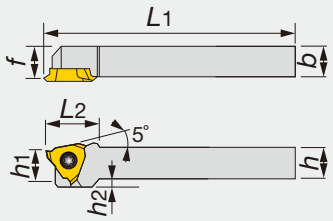
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Pitch (mm)	TPI
P	Low carbon steels C15, C20, etc.	AH725	60 - 150	0.8 - 3	32 - 8
	Carbon steels, Alloy steels C55, 42CrMoS4, etc.	AH725	60 - 150	0.8 - 3	32 - 8
	Prehardened steels NAK80, PX5, etc.	AH725	60 - 150	0.8 - 3	32 - 8
M	Stainless steels X5CrNi18-9, X5CrNiMo17-12-2, etc	AH725	50 - 80	0.8 - 3	32 - 8
K	Grey cast irons 250, 300, etc.	AH725	50 - 100	0.8 - 3	32 - 8
	Ductile cast irons 400-15, 600-3, etc.	AH725	50 - 100	0.8 - 3	32 - 8
S	Titanium alloys Ti-6Al-4V, etc.	AH725	30 - 100	0.8 - 3	32 - 8
	Superalloys Inconel718, etc.	AH725	30 - 100	0.8 - 3	32 - 8

J-SERIES
JSTTR/L
External threading toolholders for small lathe





Right hand (R) shown.

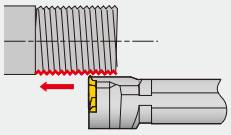
Designation	h	b	L1	L2	h1	f	h2	Insert
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L30...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1616X3	16	16	120	16.5	16	15.5	-	JTTR/L30...

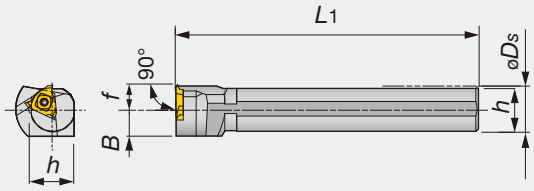
Recommend clamping torque: 1.2 N·m

SPARE PARTS

Designation	Clamping screw	Wrench
JSTTR/L...	CSTB-4SD	T-8F

J-SERIES
JS-TTL3
External threading toolholders for small lathe





Left hand (L) shown.

Designation	øDs	f	L1	h	B	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

Recommend clamping torque: 3.5 N·m

SPARE PARTS

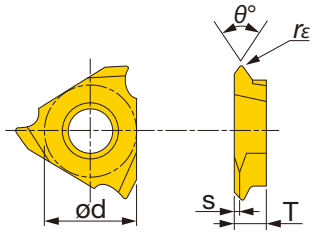
Designation	Clamping screw	Wrench
JS**-TTL3	CSTB-4S	T-15F

Reference pages

JSTTR/L, JS-TTL3: Inserts → **B425**

INSERT

JTT (sharp edge)

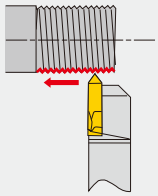


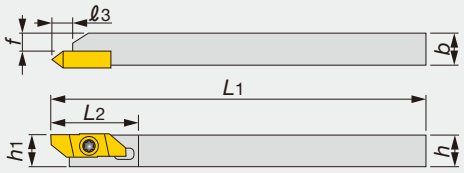
Right hand (R) shown.

Designation	rε	Coated				Cermet		Uncoated		θ°	ød	T	s
		SH725		J740		NS9530		TH10					
		R	L	R	L	R	L	R	L				
JTTR/L3005F-55	0.05	●		●						55	9.525	3.18	0.6
JTTR/L3005F	0.05	●	●	●		●		●		60	9.525	3.18	0.9
JTTR/L3010F	0.1	●	●	●		●		●		60	9.525	3.18	0.9

Machinable pitch range: 0.5 to 1 mm.

● : Line up





C-type

Right hand (R) shown.

Designation	h	b	L_1	L_2	ℓ_3	h_1	f	Insert
JSXBR1010K8-C	10	10	125	29	6.4	10	5.7	JXT*R...
JSXBR1212K8-C	12	12	125	29	6.4	12	7.7	JXT*R...
JSXBR1616K8	16	16	125	29	6.4	16	11.7	JXT*R...
JSXBR2020K8	20	20	125	29	6.4	20	15.7	JXT*R...
JSXBR2525K8	25	25	125	29	6.4	25	20.7	JXT*R...

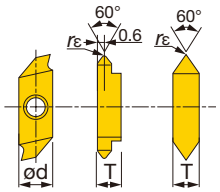
- Can be wrenched from back side with both end torx screw.
- This toolholder is also compatible with JSXB-type insert for back turning.

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench (Optional parts)
JSXBR...	CSTB-4SD	T-8F	(T-8L)

INSERT

JXT (sharp edge)



1-Type JXT1R 2-Type JXT2R

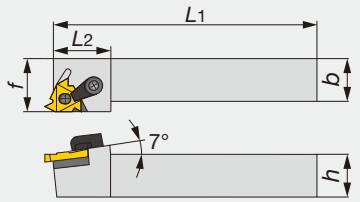
Designation	rε	Coated J740	Uncoated TH10	θ°	ød	T
JXT1R6000F	0.03	●	●	60	8	3.97
JXT2R6000F	0.03	●	●	60	8	3.97

Machinable pitch range: 0.5 to 1 mm

● : Line up

MTVNR/L-5

"TungThread"External threading toolholders for laydown inserts



Right hand (R) shown.

Designation	b	h	L_1	L_2	f	Insert
MTVNR-2525M5	25	25	152	39	31.8	L53 5B**EXT-FC
MTVNR-3232M5	32	32	178	39	38.1	L53 5B**EXT-FC

SPARE PARTS

Designation	Shim	Lock pin	Clamp	Clamping screw	Wrench
MTVNR...	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX

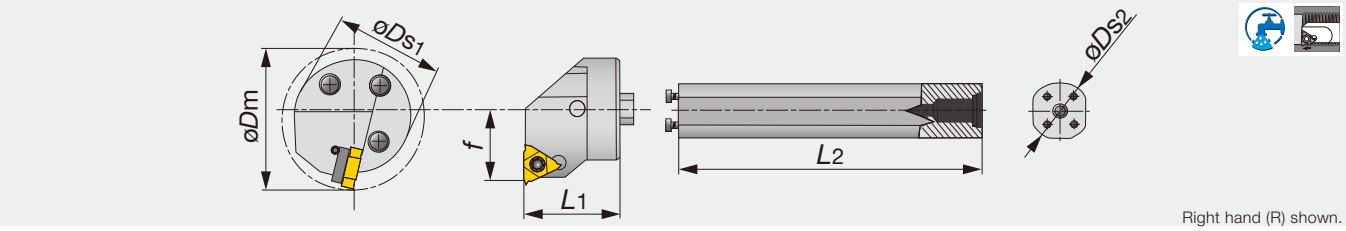
Threading Tool

Reference pages

MTVNR/L-5: Inserts → **B428**

HS-LNFR/L-53

Exchangeable internal threading heads for laydown inserts



Right hand (R) shown.

Designation	øDm	øDs1	f	L1	Insert
HS40-LNFR-53	50	40	28.7	41.3	L53 5B**INT-FC
HS50-LNFR-53	63	50	32.7	41.3	L53 5B**INT-FC

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS**-LNFR-53	NL-56	TC-250	STC-11	1/8HEX

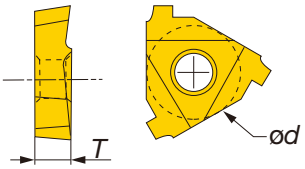
Shank

Designation	øDs2	L2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

Full-profile insert (Single-sided)

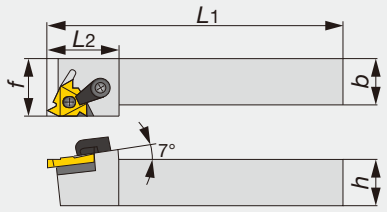


Connection	TPI	Taper		External insert				Internal insert			
		mm/mm	TPF	Designation	Grade Coated AH725	ød	T	Designation	Grade Coated AH725	ød	T
API Buttress	5	1/16	0.75	**L53 5B75 EXT-FC**	●	15.875	4.8	**L53 5B75 INT-FC**	●	15.875	4.8
	5	1/12	1	**L53 5B1 EXT-FC**	●	15.875	4.8	**L53 5B1 INT-FC**	●	15.875	4.8

● : Line up

MTVNR/L-54

External threading toolholder for laydown double-side inserts



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	*f*	Insert
MTVNR-3232M54	32	32	178	39	38.1	LDS 54**FT-CB#...

SPARE PARTS

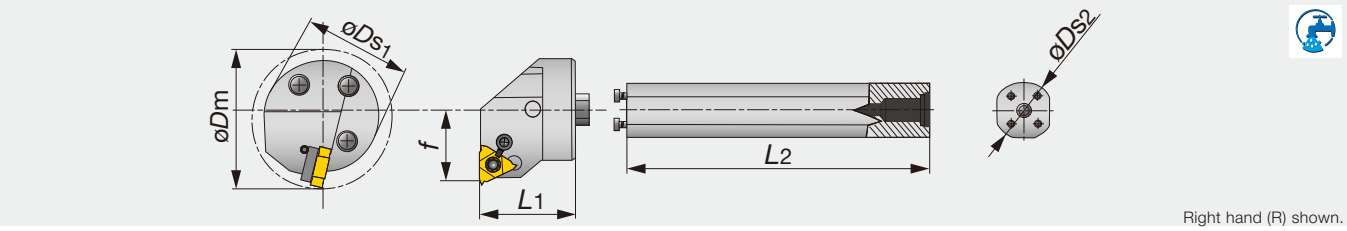
Designation	Shim	Lock pin	Clamp	Clamping screw	Wrench
MTVNR-3232M54	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX

Reference pages

MTVNR/L-54: Inserts → **B430**

HS-LNFR/L-54API

Exchangeable internal threading heads for laydown double-side inserts



Right hand (R) shown.

Designation	øDm	øDs1	f	L1	Insert
HS40-LNFR-54API	50	40	27	32	LDS 54**FT-CB#...
HS50-LNFR-54API	63	50	35	40	LDS 54**FT-CB#...

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS40-LNFR-54API	H410-1	TC-250	STC-11	1/8HEX
HS50-LNFR-54API	NL-56	TC-250	STC-11	1/8HEX

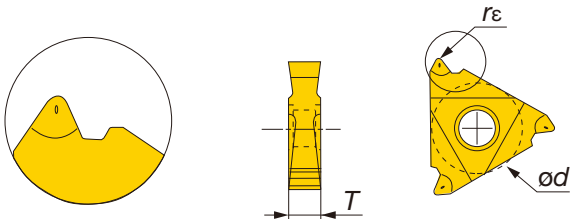
Shank

Designation	øDs2	L2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

Full-profile insert (Double-sided)

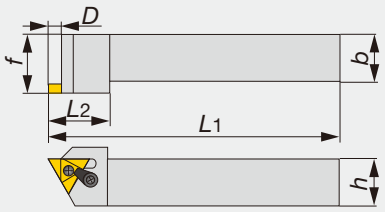


Connection	TPI	Thread form	Taper mm/mm	Taper TPF	Designation	Grade Coated AH725	ød	T	rε
API Rotary shoulder connection	5	V-0.040	1/4	3	**LDS 54 530 FT-CB #5**	●	15.875	6.4	0.51
	4	V-0.038R	1/6	2	**LDS 54 428 FT-CB #1**	●	15.875	6.4	0.97
	4	V-0.038R	1/4	3	**LDS 54 438 FT-CB #2**	●	15.875	6.4	0.97
	4	V-0.050	1/6	2	**LDS 54 425 FT-CB #3**	●	15.875	6.4	0.64
	4	V-0.050	1/4	3	**LDS 54 435 FT-CB #4**	●	15.875	6.4	0.64

● : Line up

MTVOR/L

External multi-clamp toolholders for on edge inserts



Right hand (R) shown.

Designation	*h*	*b*	L_1	L_2	*f*	D	Insert
MTVOR-2525M4	25	25	152	31	31.7	5.8	TNM*43...
MTVOR-3232M4	32	32	178	31	38.1	5.8	TNM*43...
MTVOR-2525M5	25	25	152	36	31.7	7.3	TNM*54...
MTVOR-3232M5	32	32	178	36	38.1	7.3	TNM*54...

Note: For TNMC inserts, STVOR/L toolholder is recommended. Also, M-Type toolholder is available.

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
MTVOR-**M4	NL-44	TC-190	STC-5	3/32HEX
MTVOR-**M5	NL-56	TC-250	STC-11	1/8HEX

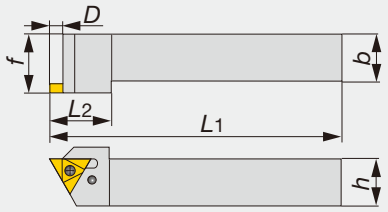
Reference pages

MTVOR/L: Inserts → **B433**

TUNGTHREAD

STVOR/L

External screw-on toolholders for on edge inserts



Right hand (R) shown.

Designation	h	b	L_1	L_2	f	D	Insert
STVOR-2525M4	25	25	152	31	31.7	5.8	TNMC43...
STVOR-3232M4	32	32	178	31	38.1	5.8	TNMC43...
STVOR-2525M5	25	25	152	36	31.7	7.3	TNMC54...
STVOR-3232M5	32	32	178	36	38.1	7.3	TNMC54...

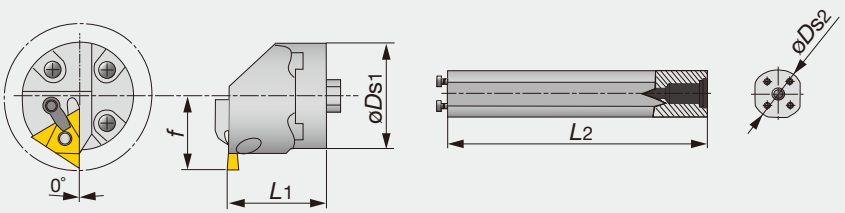
SPARE PARTS

Designation	Clamping screw	Clamp (Optional parts)	Clamping screw (Optional parts)	Wrench	
STVOR-**M4	SD2	(TC-190)	(STC-9)	T-20TORX	3/32HEX
STVOR-**M5	SD3	(TC-250)	(STC-11)	T-20TORX	1/8HEX

TUNGTHREAD

HS-MTHOR/L

Exchangeable internal threading heads, for on edge insert, applicable on S-570 shanks



Right hand (R) shown.

Designation	øDm	øDs1	f	L_1	Insert
HS40-MTHOR-4	66.7	40	25.9	32	TNM*43...
HS50-MTHOR-4	73	50	35.9	40	TNM*43...
HS40-MTHOR-5	81.3	40	30.6	32	TNM*54...
HS50-MTHOR-5	82.6	50	35.9	40	TNM*54...

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS**-MTHOR-4	NL-44	TC-190	STC-5	3/32HEX
HS**-MTHOR-5	NL-56	TC-250	STC-11	1/8HEX

Shank

Designation	øDs2	L_2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

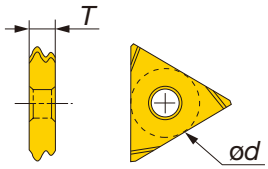
Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

Threading Tool

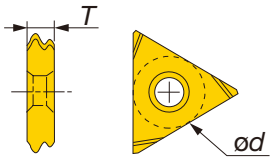
Reference pages

STVOR/L, HS-MTHOR/L: Inserts → **B433**

Full profile insert and partial topping insert



TNMA



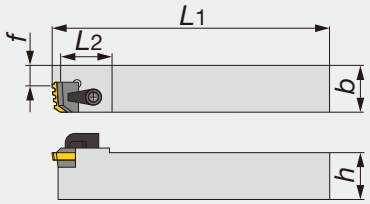
TNMC

Connection	TPI	Taper		External insert				Internal insert			
		mm/mm	TPF	Designation	Grade Coated AH725	ød	T	Designation	Grade Coated AH725	ød	T
API Round	10	1/16	0.75	**TNMA 43 10RD EXT**	●	12.7	4.8	**TNMA 43 10RD INT**	●	12.7	4.8
	8	1/16	0.75	**TNMA 43 8RD EXT**	●	12.7	4.8	**TNMA 43 8RD INT**	●	12.7	4.8
API Buttress	5	1/12	1	**TNMA 54 5B1 EXT-FC**	●	15.875	6.4	**TNMA 54 5B1 INT-FC**	●	15.875	6.4
	5	1/16	0.75	**TNMA 54 5B75 EXT-FC**	●	15.875	6.4	**TNMA 54 5B75 INT-FC**	●	15.875	6.4
ACME (29° Trapezoid)	16	-	-	**TNMA43NT16PEXT-PT**	●	12.7	4.8	-	-	-	-
	14	-	-	**TNMA43NT14PEXT-PT**	●	12.7	4.8	-	-	-	-
	12	-	-	**TNMA43NT12PEXT-PT**	●	12.7	4.8	-	-	-	-
	10	-	-	**TNMA43NT10PEXT-PT**	●	12.7	4.8	-	-	-	-
	8	-	-	**TNMA43NT8PEXT-PT**	●	12.7	4.8	-	-	-	-
	6	-	-	**TNMA43NT6PEXT-PT**	●	12.7	4.8	-	-	-	-
	5	-	-	**TNMA54NT5PEXT-PT**	●	15.875	6.4	-	-	-	-
	4	-	-	**TNMA54NT4PEXT-PT**	●	15.875	6.4	-	-	-	-
	3	-	-	**TNMA54NT3PEXT-PT**	●	15.875	6.4	-	-	-	-
STUB ACME (29° Trapezoid)	16	-	-	**TNMA43NT16PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	14	-	-	**TNMA43NT14PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	12	-	-	**TNMA43NT12PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	10	-	-	**TNMA43NT10PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	8	-	-	**TNMA43NT8PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	6	-	-	**TNMA43NT6PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	5	-	-	**TNMA54NT5PSTUBE-PT**	●	15.875	6.4	-	-	-	-
	4	-	-	**TNMA54NT4PSTUBE-PT**	●	15.875	6.4	-	-	-	-
	3	-	-	**TNMA54NT3PSTUBE-PT**	●	15.875	6.4	-	-	-	-
API Round	10	1/16	0.75	**TNMC 43 10RD EXT**	●	12.7	4.8	**TNMC 43 10RD INT**	●	12.7	4.8
	8	1/16	0.75	**TNMC 43 8RD EXT**	●	12.7	4.8	**TNMC 43 8RD INT**	●	12.7	4.8
API Buttress	5	1/12	1	**TNMC 54 5B1 EXT-FC**	●	15.875	6.4	**TNMC 54 5B1 INT-FC**	●	15.875	6.4
	5	1/16	0.75	**TNMC 54 5B75 EXT-FC**	●	15.875	6.4	**TNMC 54 5B75 INT-FC**	●	15.875	6.4
ACME (29° Trapezoid)	16	-	-	**TNMC43NT16PEXT-PT**	●	12.7	4.8	-	-	-	-
	14	-	-	**TNMC43NT14PEXT-PT**	●	12.7	4.8	-	-	-	-
	12	-	-	**TNMC43NT12PEXT-PT**	●	12.7	4.8	-	-	-	-
	10	-	-	**TNMC43NT10PEXT-PT**	●	12.7	4.8	-	-	-	-
	8	-	-	**TNMC43NT8PEXT-PT**	●	12.7	4.8	-	-	-	-
	6	-	-	**TNMC43NT6PEXT-PT**	●	12.7	4.8	-	-	-	-
	5	-	-	**TNMC54NT5PEXT-PT**	●	15.875	6.4	-	-	-	-
	4	-	-	**TNMC54NT4PEXT-PT**	●	15.875	6.4	-	-	-	-
	3	-	-	**TNMC54NT3PEXT-PT**	●	15.875	6.4	-	-	-	-
STUB ACME (29° Trapezoid)	16	-	-	**TNMC43NT16PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	14	-	-	**TNMC43NT14PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	12	-	-	**TNMC43NT12PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	10	-	-	**TNMC43NT10PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	8	-	-	**TNMC43NT8PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	6	-	-	**TNMC43NT6PSTUBE-PT**	●	12.7	4.8	-	-	-	-
	5	-	-	**TNMC54NT5PSTUBE-PT**	●	15.875	6.4	-	-	-	-
	4	-	-	**TNMC54NT4PSTUBE-PT**	●	15.875	6.4	-	-	-	-
	3	-	-	**TNMC54NT3PSTUBE-PT**	●	15.875	6.4	-	-	-	-

• For ACME and STUB-ACME inserts can cut crest radius. Crest flat of ACME and STUB-ACME have to cut by another tool.

● : Line up

TUNGTHREAD
CLVOR
External toolholders for the chaser inserts



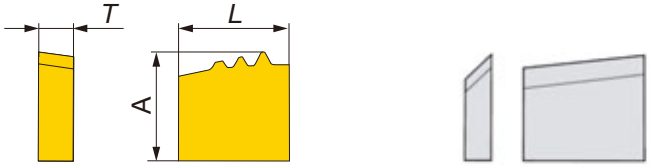
Right-hand (R) shown.

Designation	f	L1	L2	h	b	Insert
CLVOR-25M6	16.1	177.8	32	25	25	CR-8R/10R/11.5NPT/8NPT-3E/4E
CLVOR-32M6	16.1	177.8	32	32	32	CR-8R/10R/11.5NPT/8NPT-3E/4E
CLVOR-40M8	29.8	179.1	32	40	40	CR-5B75-4E

SPARE PARTS

Designation	Shim	Shim screw	Clamp	Clamping screw	Wrench		
CLVOR-25M6	TF1207	SF80	TC-311	STC-4	T-25TORX	-	5/32HEX
CLVOR-32M6	TF1207	SF85	TC-311	STC-4	T-25TORX	-	5/32HEX
CLVOR-40M8	TF8132-E	SF60	TC-311	STC-4	-	T-20TORX	5/32HEX

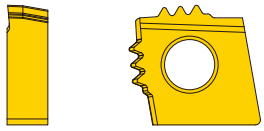
Full profile insert (chaser)



Connection	TPI	Taper mm/mm	Taper TPF	Designation	AH725	L	A	T	Breakerpiece
API Round	8	1/16	0.75	**CR-8R-3E**	●	16	15	5.2	CR-8R / 10R-3E / 4E-CB
	10	1/16	0.75	**CR-10R-3E**	●	16	15.9	5.2	CR-8R / 10R-3E / 4E-CB
API Buttress	5	1/16	0.75	**CR-5B75-4E**	●	20.4	15.9	5.1	CR-5B75 / 5B1-4E-CB
NPT	11.5	1/16	0.75	**CR-11.5NPT-4E**	●	15.9	15.7	4.76	CR-8R / 10R-3E / 4E-CB
	8	1/16	0.75	**CR-8NPT-4E**	●	15.9	15.7	5.2	CR-8R / 10R-3E / 4E-CB

TUNGTHREAD
CNGA-3E
API Round & buttress chaser insert with 2 corners for turning

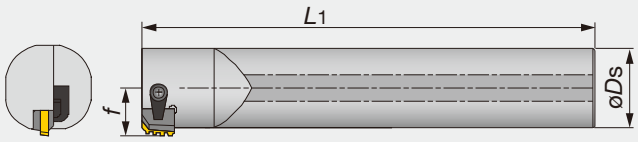
Full profile insert (chaser)



Connection	TPI	Taper mm/mm	Taper TPF	Designation	AH725
API Round	10	1/16	0.75	**CNGA-10R-3E**	●
	8	1/16	0.75	**CNGA-8R-3E**	●
API Buttress	5	1/16	0.75	**CNGA-5B75-3E**	●

Note: Toolholder should be designed and ordered individualy.

● : Line up



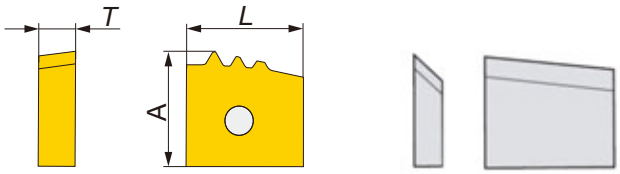
Right-hand (R) shown.

Designation	øDm	øDs	f	L1	Insert
SI-CLHOR-40M6	50.8	40	23.16	400	CR-**I

SPARE PARTS

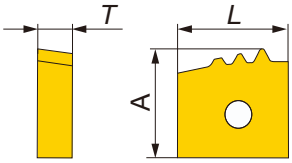
Designation	Clamp	Clamping screw	Wrench
SI-CLHOR-40M6	TC-311	STC-8	5/32HEX

Full profile insert (chaser)

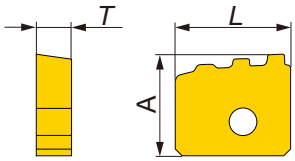


Connection	TPI	Taper mm/mm	Taper TPF	Designation	AH725	L	A	T	Breakerpiece
API Round	8	1/16	0.75	**CR-8R-3I**	●	16	15	5.1	CR-8R / 10R-3I / 4I-CB
	10	1/16	0.75	**CR-10R-3I**	●	16	15.9	5.1	CR-8R / 10R-3I / 4I-CB
API Buttress	5	1/16	0.75	**CR-5B75-3I**	●	16	14.7	5.2	CR-8R / 10R-3I / 4I-CB
NPT	11.5	1/16	0.75	**CR-11.5NPT-4I**	●	15.9	15.7	4.76	CR-8R / 10R-3I / 4I-CB
	8	1/16	0.75	**CR-8NPT-4I**	●	15.9	15.7	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up



API Round



API Buttress

Connection	TPI	Taper		Designation	AH725	*L*	A	*T*	Breakerpiece
		mm/mm	TPF						
API Round	8	1/16	0.75	**CR-8R-3E #1**	●	16	14.7	5.2	TD39318R-1-CBW/CAVITY
	8	1/16	0.75	**CR-8R-3E #2**	●	16	14.9	5.2	TD39328R-2-CBW/CAVITY
	8	1/16	0.75	**CR-8R-3E #3**	●	16	15	5.2	TD39338R-3-CBW/CAVITY
API Buttress	5	1/16	0.75	**CR-5B75-3E #1**	●	17	14.6	5.2	TD46015B75-1-CBW/CAVITY
	5	1/16	0.75	**CR-5B75-3E #2**	●	17	14.8	5.2	TD46025B75-2-CBW/CAVITY
	5	1/16	0.75	**CR-5B75-3E #3**	●	17	15	5.2	TD46035B75-3-CBW/CAVITY

● : Line up

MEMO