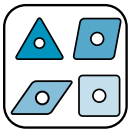
Turning indexable inserts

B



B

Turning indexable inserts

Turning indexable inserts identification system

Symbol	Shape
H	Hexagon
O	Octagon
P	Pentagon
S	Square
T	Triangle
C	80° Rhombic
D	55° Rhombic
E	75° Rhombic
F	50° Rhombic
M	86° Rhombic
V	35° Rhombic
W	80° Trigon
L	Rectangle
A	85° Parallelogram
B	82° Parallelogram
K	55° Parallelogram
R	Round

Shown angle stands for acute angle for rhombic and parallelogram inserts.

«1» Shape symbol

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

«2» Relief angle symbol

Symbol class	Tolerance (mm)		
	Corner height	Thickness	I.C. size
A	±0.005	±0.025	±0.025
F			±0.013
C	±0.013		±0.025
H			±0.013
E	±0.025		±0.025
G		±0.13	
J	±0.005	±0.025	±0.05 - ±0.15
K*	±0.013		
L*	±0.025		
M*	±0.08 - ±0.18	±0.13	
N*		±0.025	
U*	±0.13 - ±0.38	±0.13	±0.08 - ±0.25

* Insert's periphery is as fired.
Tolerance difference is depending on insert size.

«3» Tolerance symbol

Symbol	Hole	Hole shape	Chipbreaker	Shape
N	No	-	No	
R			Single sided	
F			Double sided	
A	Yes	With hole	No	
M			Single sided	
G			Double sided	
W		With hole and one countersink 40° - 60°	No	
T			Single sided	
Q		With hole and two countersink 40° - 60°	No	
U			Double sided	
B		With hole and one countersink 70° - 90°	No	
H			Single sided	
C		With hole and two countersink 70° - 90°	No	
J			Double sided	
X	-	-	-	-

«4» Hole / Chipbreaker symbol

ISO metric

C	N	M	G	12	04	08	PG
1	2	3	4	5	6	7	8

ANSI inch

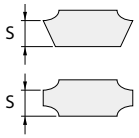
C	N	M	G	4	3	2	PG
1	2	3	4	5	6	7	8

«5» Edge length symbol (ISO)							I.C. size (mm)	«5» I.C. size (ANSI)	
C	D	R	S	T	V	W		IC size (inch)	Symbol
03	04		03	06			3.97	5/32	12
04	05		04	08	08		4.76	3/16	15
		05					5		
05	06		05	09		03	5.56	7/32	18
		06					6		
06	07		06	11	11	04	6.35	1/4	2
08	09		07	13		05	7.94	5/16	25
		08					8		
09	11	09	09	16	16	06	9.525	3/8	3
	12	10					10		
		12					12		
12	15	12	12	22	22	08	12.7	1/2	4
16	19	15	15	27	27	10	15.875	5/8	5
		16					16		
19	23	19	19	33	33	13	19.05	3/4	6
		20					20		
22	27		22	38			22.225	7/8	7
		25					25		
25	31	25	25	44	44	17	25.4	1	8
32	38	31	31	54	54	21	31.75	1-1/4	10
		32					32		

· Expressed as edge length for ISO.
· ANSI expresses the inscribed circle diameter in inches.

«6» Thickness symbol

ISO		ANSI	
Thickness (mm)	Symbol	Thickness (inch)	Symbol
1.59	01	1/16	1
1.98	T1	5/64	12
2.38	02	3/32	15
2.78	T2	-	-
3.18	03	1/8	2
3.97	T3	5/32	25
4.76	04	3/16	3
5.56	05	7/32	35
6.35	06	1/4	4
7.94	07	5/16	5
9.525	09	3/8	6



Thickness displayed as the distance between bottom surface and highest point on cutting edge.

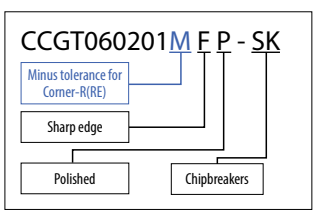
«7» Corner-R (RE) symbol

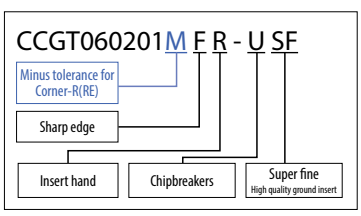
ISO		ANSI	
Corner-R(RE) (mm)	Symbol	Corner-R(RE) (inch)	Symbol
Sharp corner	00	.000	00
0.03	003	.001	01
0.05	005	.002	013
0.1	01	.004	02
0.2	02	.008	05
0.4	04	1/64	1
0.8	08	1/32	2
1.2	12	3/64	3
1.6	16	1/16	4
2.0	20	5/64	5
2.4	24	3/32	6
2.8	28	7/64	7
3.2	32	1/8	8
Round insert	00 (inch) or M0 (metric)	Round insert	0

«8» Manufacturer's option

Hand symbol, chipbreaker symbol, etc.

Positive inserts identification system





When a minus tolerance is specified for the corner-R(RE)

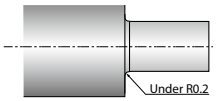


Fig. 1 Example of a specified corner-R in the drawing

If a minus tolerance is specified for the corner-R as shown in the figure, using an insert with corner-R(RE) = 0.2 mm may result in larger radius than specified.

Use an insert the corner of which R(RE) has a minus tolerance.

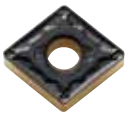
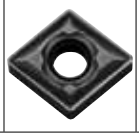
Insert colour

Red colour = New grade

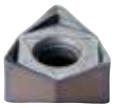
Cermet

Grades	Cermet									CVD coated cermet	MEGACOAT NANO cermet				MEGACOAT cermet	
	TN610	TN620	TN620M	TN6020	TN60	TN90	TN100M	TC40N	TC60M	CCX	PV710	PV720	PV730	PV60M	PV7005	PV7040
Insert colour																

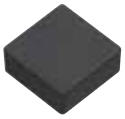
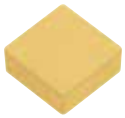
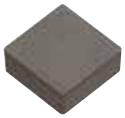
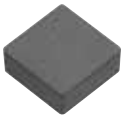
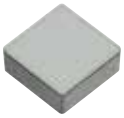
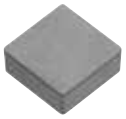
CVD coated carbide

Grades	CVD coated carbide												
	CA115P	CA125P	CA310	CA315	CA320	CA415D	CA520D	CA420M	CA45 series	CA025P	CA5 series	CA65 series	CR9025
Insert colour													

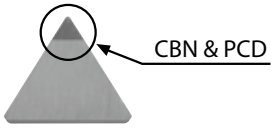
PVD coated carbide

Grades	MEGACOAT NANO					MEGACOAT NANO PLUS		MEGACOAT NANO EX			MEGACOAT HARD				MEGACOAT				PVD coated carbide				
	PR1510	PR1515	PR1525	PR1535	PR1625	PR1705	PR1725	PR1810	PR1825	PR1835	PR005S	PR015S	PR115S	PR120S	PR1210	PR1215	PR1225	PR1230	PR905	PR915	PR930	PR1025	PR1115
Insert colour																							

Ceramic

Grades	Aluminum oxide ceramic			PVD coated ceramic	MEGACOAT ceramic	Silicon nitride ceramic		CVD coated silicon nitride ceramic	SiAlON ceramic	
	KA30	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7050	KS6030	KS6040
Insert colour										

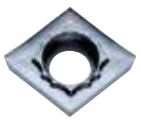
CBN & PCD

Grades	CBN				PCD			MEGACOAT TOUGH CBN / MEGACOAT CBN			PVD coated CBN
	KBN475	KBN510	KBN525	KBN570	KPD001	KPD010	KPD230	KBN010	KBN020	KBN..M	KBN900
Insert colour	 CBN & PCD										

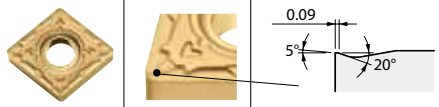
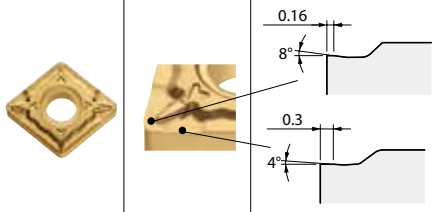
DLC coated carbide

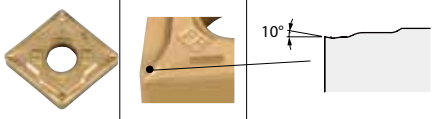
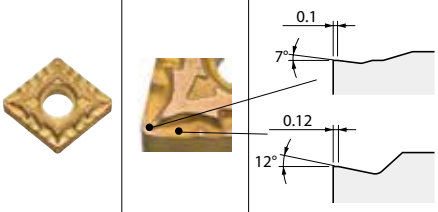
Grades	DLC coated carbide		
	PDL010	PDL015	PDL025
Insert colour			

Uncoated carbide

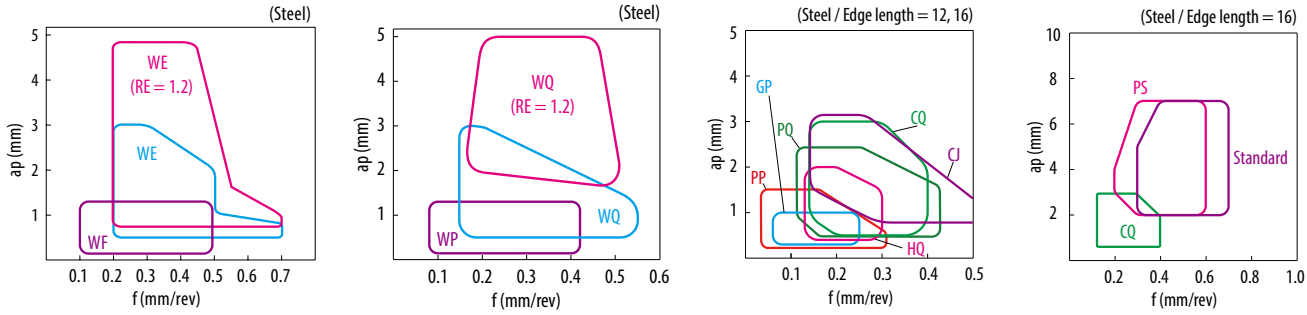
Grades	Carbide				
	GW05	GW15	GW25	KW10	SW05
Insert colour					

Steel (Molded chipbreaker)

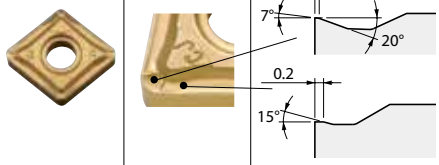
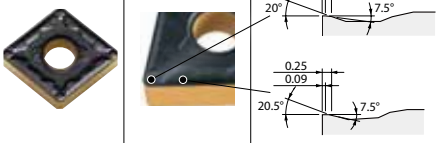
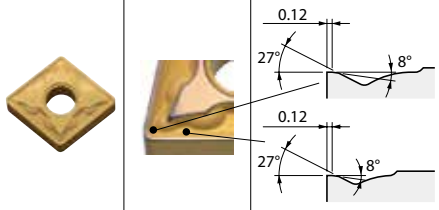
Cutting range	Name	Design	Advantages
Finishing	WF		• **Wiper insert** • Good chip control in finishing operations • Excellent surface roughness by controlling adhesion • Less cutting force due to sharp cutting edge
Finishing	WP		• **Wiper insert** • Good chip control at small machining
Finishing - Medium	WE		• **Wiper insert** • Good surface finish at high feed machining • High productivity with smooth chip control in a wide range of applications
Finishing - Medium	WQ		• **Wiper insert** • Double feed rate possible while maintaining a smooth finish • High efficiency and good chip control

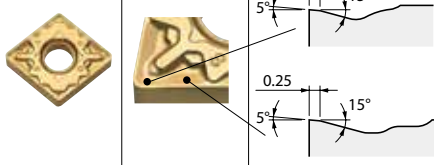
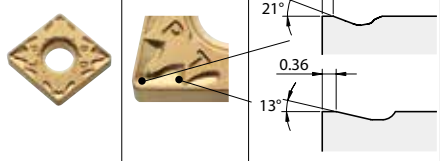
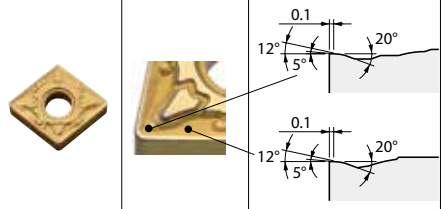
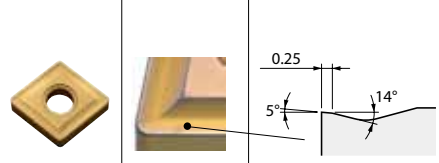
Cutting range	Name	Design	Advantages
Finishing	PP		• 3-step dot structure realizes stable chip control at a wide range of feed rate • Less cutting force due to sharp cutting edge and smooth rake face
Finishing - Medium	PQ		• Stable chip control in a wide feed rate range by breaking chips effectively • Well-balanced edge sharpness and toughness
Finishing	GP		• Finishing to light machining • Good chip control
Finishing - Medium	HQ		• Sharp cutting performance with 3-D rake angle and double projection design
Finishing - Medium	CQ		• Good chip control for varied ap such as copying • Applicable to up facing

Applicable chipbreaker range (ap indicates radius)

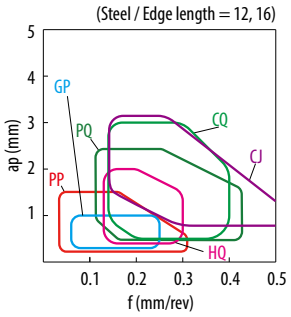


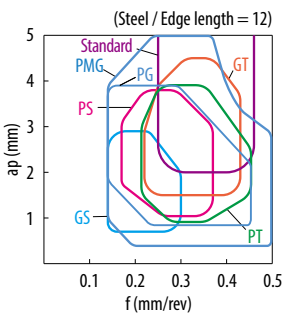
Steel (Molded chipbreaker)

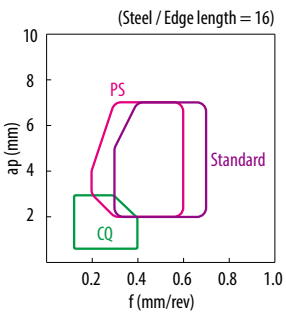
Cutting range	Name	Design	Advantages
Finishing - Medium / up facing	CJ		• Improved chip curling at small machining and high feed rate machining • Improved chip evacuation at copying and up facing
Medium - Roughing	PMG		• 1st recommendation for medium-roughing process • Good chip control in a wide range of machining areas • Reduced crater wear leads to longer tool life
Medium - Roughing	PG		• Stable machining with good balance of edge sharpness and strength • Prevent chip clogging at high feed rate • Good chip control at low feed rate • Stable machining with wide chip control range
Medium - Roughing	GS		• Strong edge chipbreaker • Stable for continuous machining and light interrupted machining

Cutting range	Name	Design	Advantages
Medium - Roughing	PS		• General purpose chipbreaker • More stable due to large contact surface
Medium - Roughing / High feed rate	PT		• Low cutting force at high feed machining • Land support structure
Medium - Roughing / High feed rate	GT		• Strong edge chipbreaker • Wide land design and smooth chip control even at high feed rate machining
Roughing	Standard (without indication)		• Low cutting force and applicable to large ap roughing

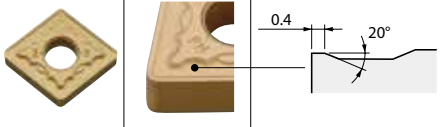
Applicable chipbreaker range (ap indicates radius)

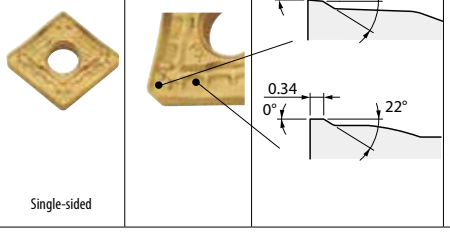




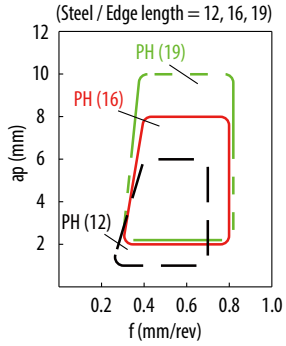


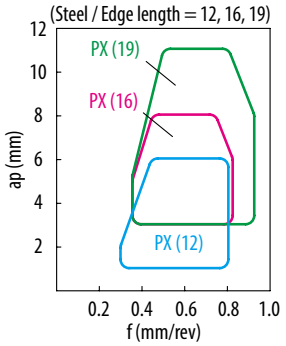
Steel (Molded chipbreaker)

Cutting range	Name	Design	Advantages
Roughing	PH		• Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge

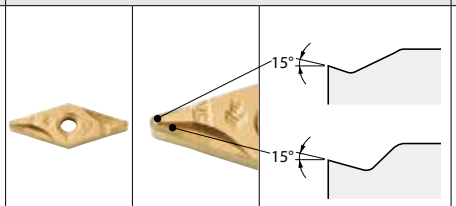
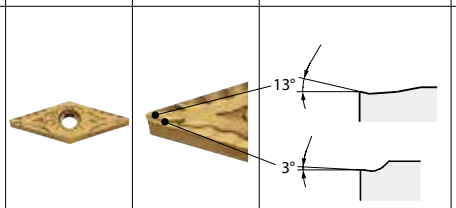
Cutting range	Name	Design	Advantages
Roughing (high feed rate)	PX	 Single-sided	• Roughing and high feed rate operation • Low cutting force chipbreaker

Applicable chipbreaker range (ap indicates radius)

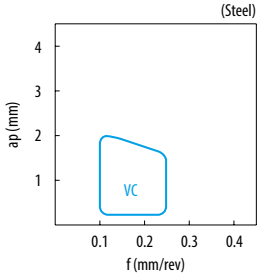


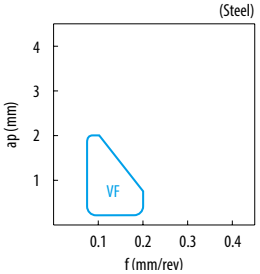


Steel (copying / undercutting , varied ap)

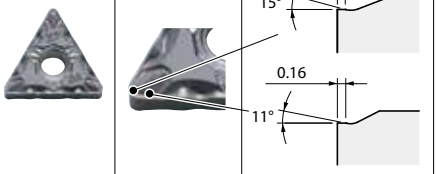
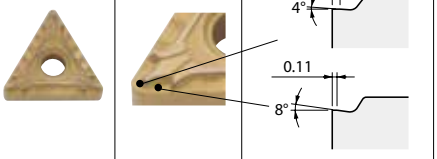
Cutting range	Name	Design	Advantages
Finishing - Medium	VC		• Handed chipbreaker for copying • Good chip control at varied ap because of the large space on the main cutting edge side
Finishing - Medium	VF		• Good chip control at varied ap such as copying and undercutting

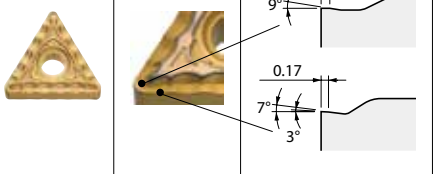
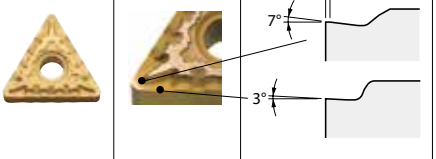
Applicable chipbreaker range (ap indicates radius)



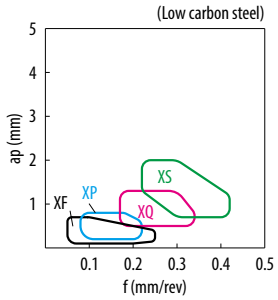


Low carbon steel (pipe / rolled plate / rolled steel)

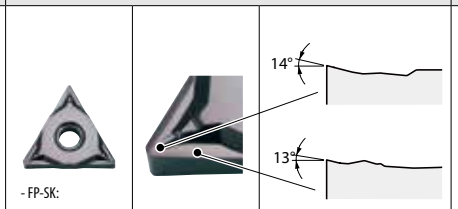
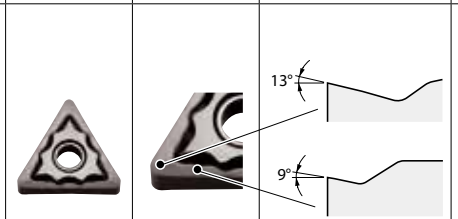
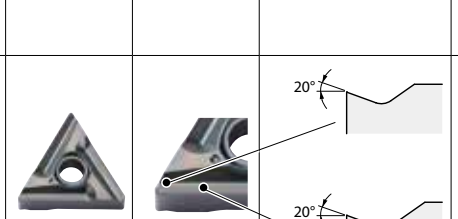
Cutting range	Name	Design	Advantages
Finishing	XF		• Excellent chip control at high speed and small ap machining of low carbon steel
Finishing	XP		• Short chips due to sharp cutting and special design

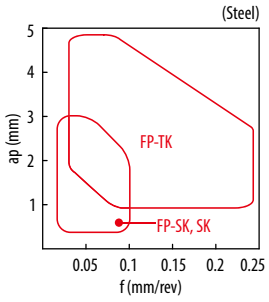
Cutting range	Name	Design	Advantages
Medium	XQ		• Consistent chip breaking due to moderate rake face and special design
Roughing	XS		• Consistent chip breaking due to special rake face and rake angle design

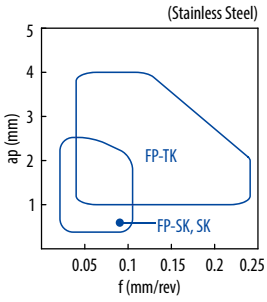
Applicable chipbreaker range (ap indicates radius)

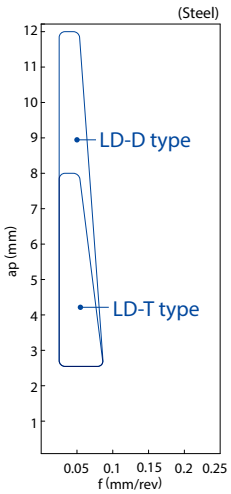


Steel / Stainless steel (for automatic lathe)

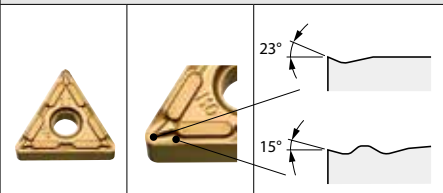
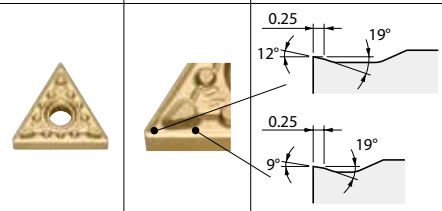
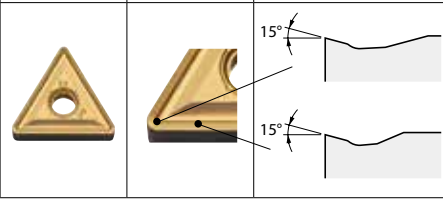
Cutting range	Name	Design	Advantages
Finishing - Medium	SK	 - FP-SK: Polished sharp edge -SK: Honed	• Machining in automatic lathes • Sharp cutting performance equivalent to positive inserts • 2-step dot design provides reliable chip control at various ap
Medium - Roughing	FP-TK		• Good in automatic lathes (When machining workpieces of medium to large diameter) • Superior cutting performance achieved by sharp edge and polished surface • Smooth chipbreaker geometry improves chip flow with less adhesion ·Large curled chips
Large ap	LD		• Available for greater depths of cut than many conventional chipbreakers • Achieves high-precision machining in a single pass • Chipbreaker shape optimized for various depths of cut • Stable chip control in a wide range of machining applications

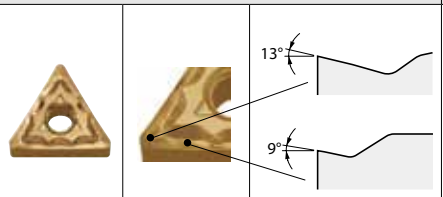
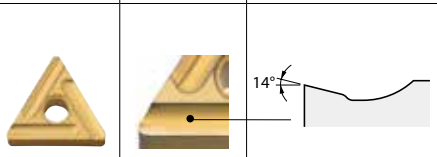




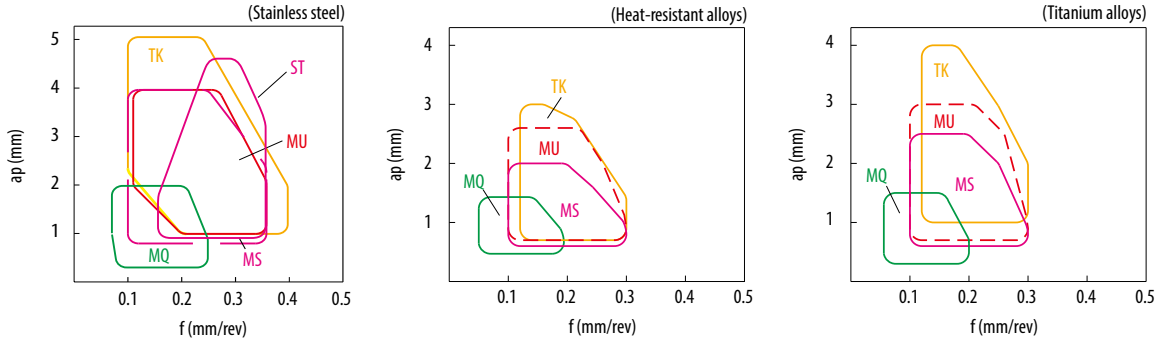


Stainless steel / Heat-resistant alloys / Titanium alloy

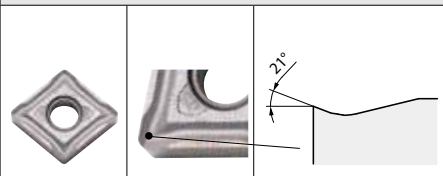
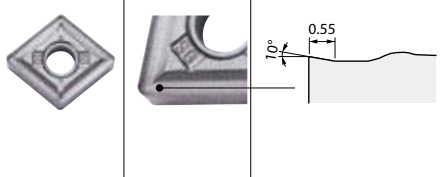
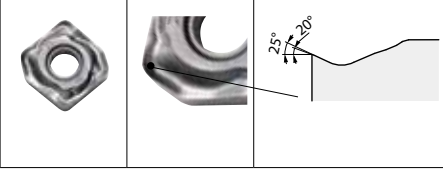
Cutting range	Name	Design	Advantages
Finishing	MQ		• Large rake angle • Low cutting force and good chip control
Medium - Roughing	MS		• Superior cutting edge sharpness and strength achieved by a positive land • Extra strength of cutting edge inhibits damage from wall shouldering
Medium - Roughing	MU		• Large rake angle reduces cutting force • Less burring achieved by diminishing damage from notching

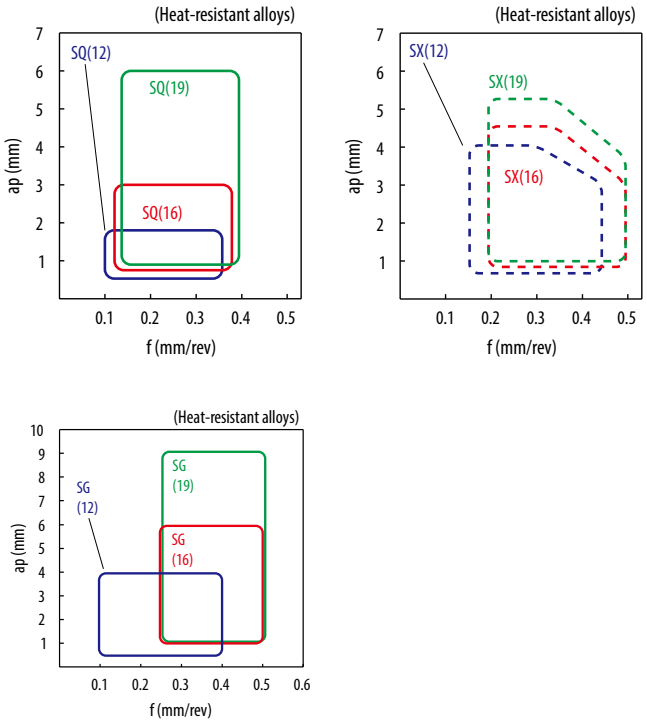
Cutting range	Name	Design	Advantages
Medium - Roughing	TK		• Smooth chipbreaker geometry improves chip flow with less adhesion • Large curled chips
Medium - Roughing	ST		• Less cutting force due to large rake angle • Less notching by special design

Applicable chipbreaker range (ap indicates radius)

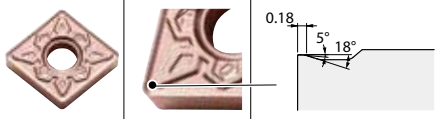
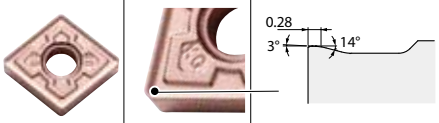
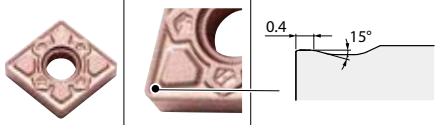


Heat-resistant alloys

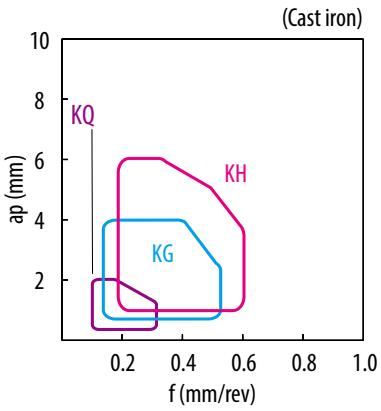
Cutting range	Name	Design	Advantages
Finishing - Medium	SQ		• Effective for burr suppression and reducing notching by slant cutting edge (inclined in (-) direction)
Roughing	SG		• Well-balanced edge strength • Cutting force reduction for stable machining at high-load cutting • Shallow and gently curved breaker controls chips smoothly
Roughing	SX		• Slant cutting edge reduces cutting force • Less burring achieved by unique cutting edge design



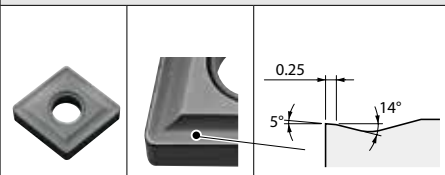
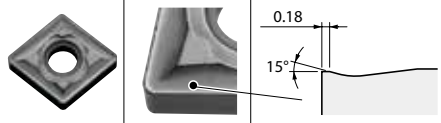
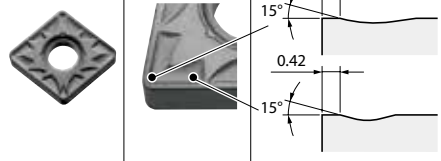
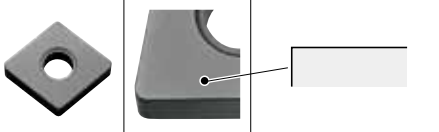
Cast iron (K series)

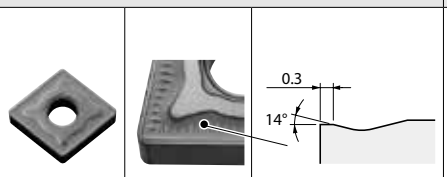
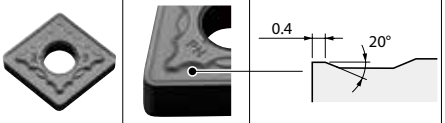
Cutting range	Name	Design	Advantages
Sharp cutting oriented	KQ		• Sharp cutting chipbreaker • Edge geometry is suitable for workpieces that require sharpness such as thin-walled
Roughing	KG		• Excellent balance of sharpness and strength • Realized stability at continuous machining
Roughing	KH		• Good for heavily interrupted machining • Strong edge chipbreaker • Improved locating / seating in the toolholder pocket, high reliability achieved

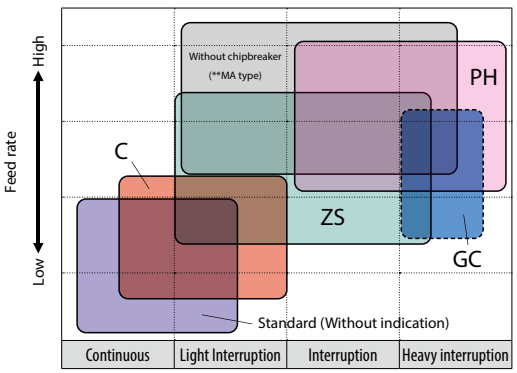
Applicable chipbreaker range (ap indicates radius)



Cast iron

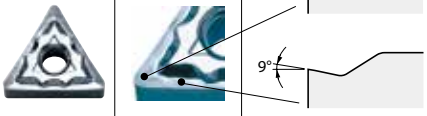
Cutting range	Name	Design	Advantages
Sharp cutting oriented	Standard (Without Indication)		• Standard type for continuous to light interrupted cut (Low cutting force)
	C		• High feed rate chipbreaker for continuous to light interrupted cut
	ZS		• Standard type for light interrupted to interrupted cut (Stability oriented)
	Without chipbreaker		• High feed rate chipbreaker for light interrupted to interrupted cut

Cutting range	Name	Design	Advantages
Stability oriented	GC		• For heavy interrupted cut (Tough edge chipbreaker)
	PH		• For roughing • Suitable for heavy interrupted cut and for workpieces with scale due to strong cutting edge

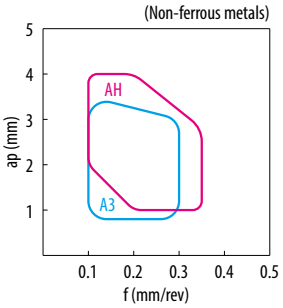


Non-ferrous metals

Cutting range	Name	Design	Advantages
Finishing - Medium	A3		• Large rake angle and smooth surface •Good chip control and less adhesion

Cutting range	Name	Design	Advantages
Medium - Roughing	AH	 G class: Sharp edge M class: Horned edge prep.	• Polished chipbreaker • Smooth chip control and less adhesion

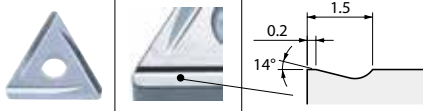
Applicable chipbreaker range (ap indicates radius)

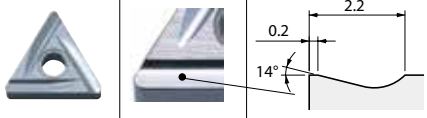
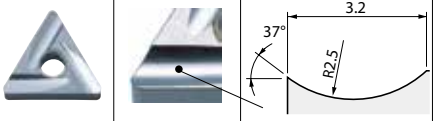


A3 chipbreaker	
	ap = 2 mm f = 0.2 mm/rev
	ap = 2 mm f = 0.3 mm/rev

AH chipbreaker	
	ap = 2 mm f = 0.2 mm/rev
	ap = 2 mm f = 0.3 mm/rev

Steel (Ground chipbreaker)

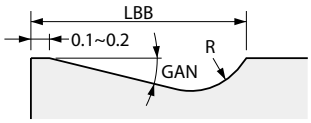
Cutting range	Name	Design	Advantages
Finishing	S		• Sharp edge and less cutting force • Good chip control and smooth chip evacuation
Finishing - Medium	B		• Suitable for general purpose machining at feed rate 0.15 to 0.25mm/rev

Cutting range	Name	Design	Advantages
Medium - Roughing	C		• Suitable for general purpose machining at feed rate 0.20 to 0.35 mm/rev
Medium - Roughing / Low cutting force	25R		• Applicable to sticky material such as low carbon steel • Large rake angle and suitable for stainless steel

Effectiveness of ground chipbreaker

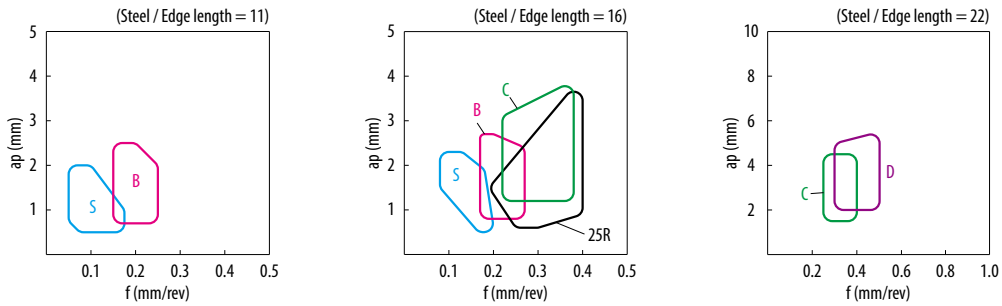
1. Lower cutting force and improve edge
2. Improved adhesion resistance
3. Improved dimension accuracy and finishing surface accuracy
4. Controlled chip evacuation direction

Specification of B, C and parallel ground chipbreaker

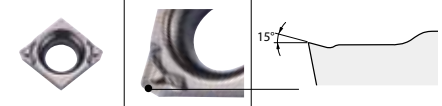
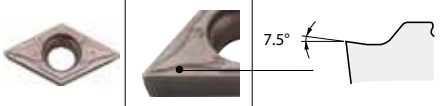
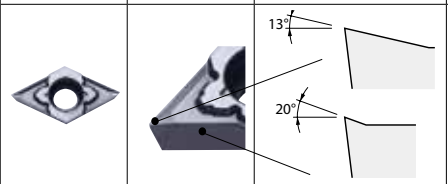
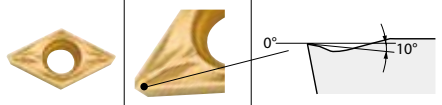


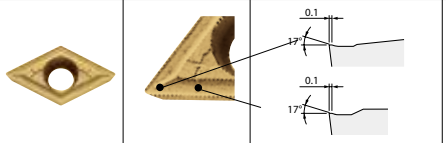
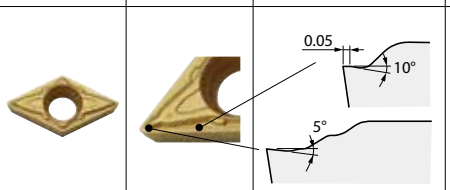
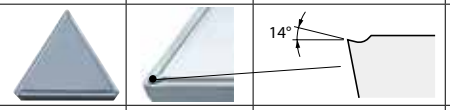
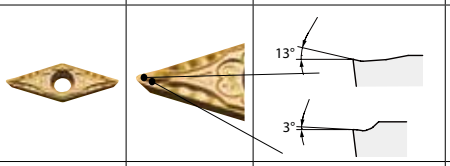
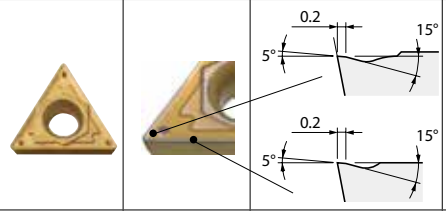
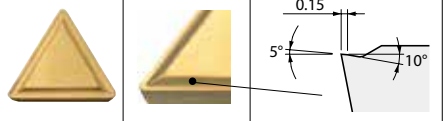
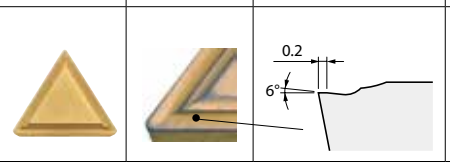
Insert type	Size	Chipbreaker name	LBB	GAN	R
CNGG	09,12	Without indication (Similar to C)	2.2	14°	1.0
WNGG	06	Without indication (Similar to C)	2.2	14°	1.0
TNGG	11,16	B	1.5	14°	0.5
	16,22	C	2.2	14°	1.0
DNGG	11,15	Without indication (Similar to C)	2.5	14°	2.0
VNGG	16	Without indication (Similar to B)	1.5	14°	0.5
SNGG	09,12	B	1.5	14°	0.5
	12	C	2.2	14°	1.0

Applicable chipbreaker range (ap indicates radius)

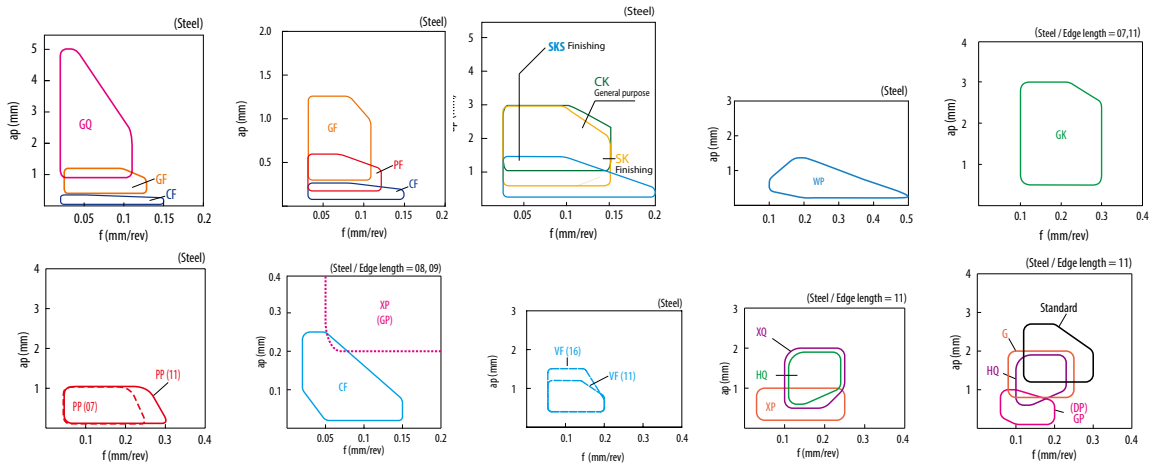


Steel (Molded chipbreaker)

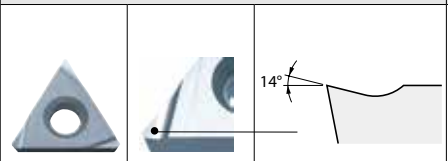
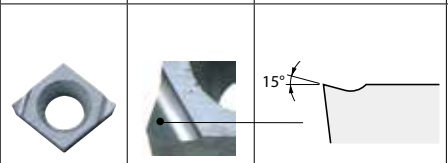
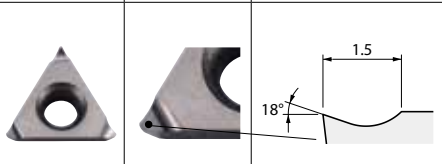
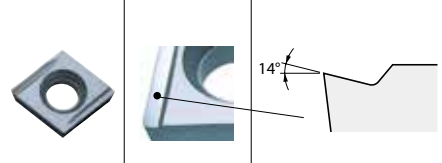
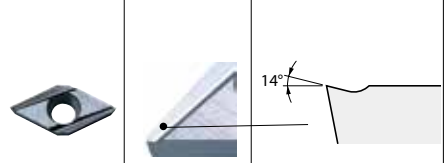
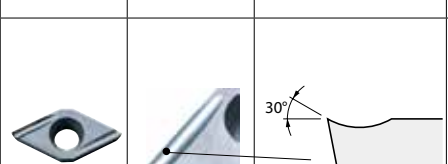
Cutting range	Name	Design	Advantages
Minute ap	CF		• Available for minute ap (0.02 to 0.2 mm) finishing
Finishing	PF		• Chipbreaker for finishing boring available from ap 0.15~0.6 mm
Finishing	GF		• Chips fragmented in small pieces in machining of small ap
Finishing - Medium	GQ		• Wide range of conditions by using the optimum chipbreaker width according to the cutting depth
Finishing	SKS		·Chipbreaker for finishing available from 0.2~1.5mm ·Rake face, bottom face and chipbreaker face provide stable chip control.
Finishing	SK		• Sharp cutting performance due to large rake angle • Large dot to the corner edge improved chip control in a wide feed rate range
Finishing	CK		• Good cutting performance • Applicable without hand for two direction machining on automatic lathe
Finishing	WP		• **Wiper insert** • Good surface finish and good chip control at high feeds • Reduces surface finish galling

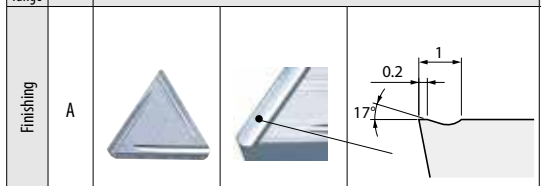
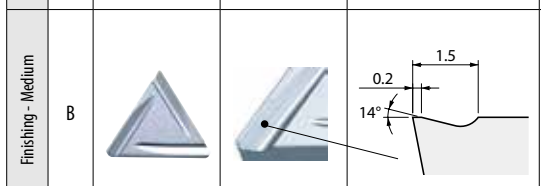
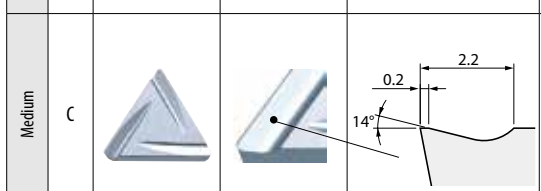
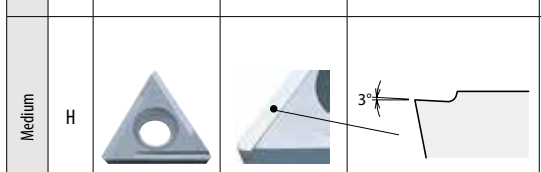
Cutting range	Name	Design	Advantages
Finishing - Medium	GK		• Good chip evacuation at wide range by breaker dot and wide chip pocket
Finishing	PP		• **1st. recommendation** • Stable chip control in a wide feed rate range •Stable tool life due to special edge design with sharpness and improved strength
Finishing	DP		• Consistent chip breaking performance for finishing
Finishing	GP		• Good chip control
Finishing	VF		• Good chip control for varied ap such as copying and undercutting
Finishing - Medium	HQ		• General purpose chipbreaker for medium machining
Medium	G		• Chipbreaker for short chips
Medium	Standard (without indication)		• Strong edge chipbreaker

Applicable chipbreaker range (ap indicates radius)

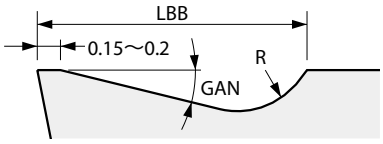


Steel (Ground chipbreaker)

Cutting range	Name	Design	Advantages
Finishing	Lead (Without Indication)		• Good chip control at finishing to light machining with low cutting force
Finishing	F		• Good chip control at finishing to light machining with low cutting force
Finishing	P		• Flows chips towards the inlet of hole • Sharp edge
Medium	Y		• Sharp cutting performance and good surface finish
Low Feed	J		• Slant chipbreaker width and chip control at various ap • Applicable to automatic lathes
Low Feed	U		• Good chip control at low feed rate and varied ap with low cutting force

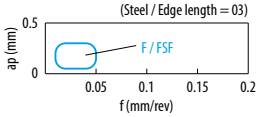
Cutting range	Name	Design	Advantages
Finishing	A		• Large rake angle and low cutting force • Narrow chipbreaker width and consistent chip control
Finishing - Medium	B		• General purpose chipbreaker for medium machining • Good balance between chip control and sharp cutting
Medium	C		• Applicable to high load machining • Good chip flow and less resistance
Medium	H		• Sharp cutting performance and small curled chips

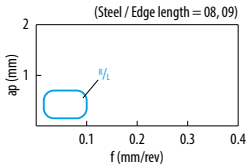
Specification of A, B, C and parallel ground chipbreaker

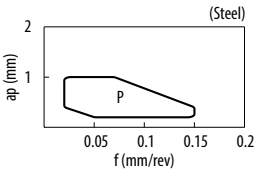


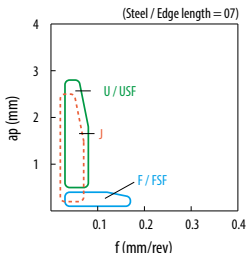
Insert type	Size	Chipbreaker name	LBB	GAN	R
TPGR	11	A	1.0	17°	0.5
	11,16	B	1.5	14°	0.5
	16	C	2.2	14°	1.0
SPGR	09	Without indication (Similar to B)	1.5	14°	0.5
	12	Without indication (Similar to C)	2.2	14°	1.0

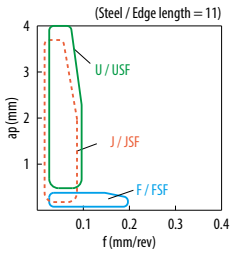
Applicable chipbreaker range (ap indicates radius)

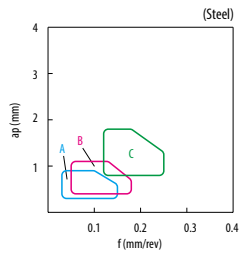


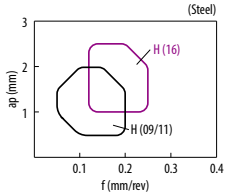




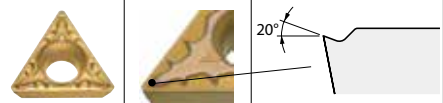


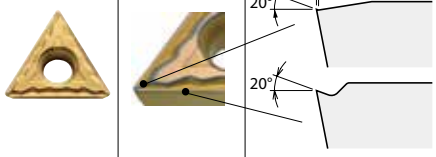




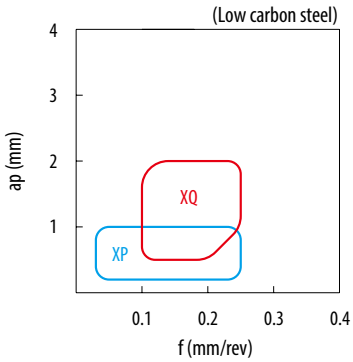


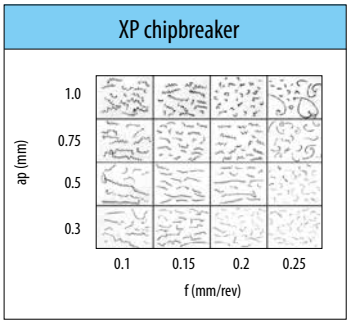
Low carbon steel (pipe / rolled plate / rolled steel)

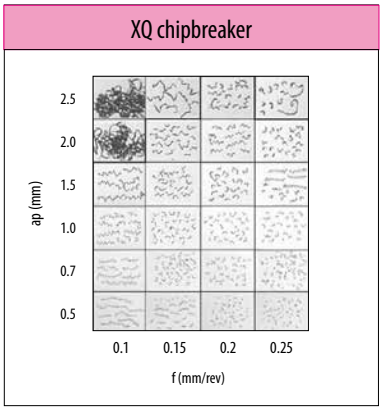
Cutting range	Name	Design	Advantages
Finishing	XP		• Consistent chip breaking performance even for low carbon steel and sticky material

Cutting range	Name	Design	Advantages
Finishing - Medium	XQ		• Wide chip control range and sharp cutting performance • Suitable for low carbon steel and sticky material

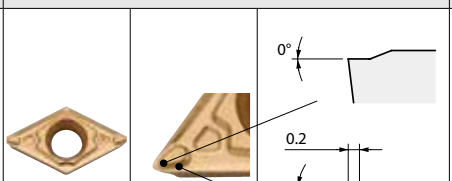
Applicable chipbreaker range (ap indicates radius)



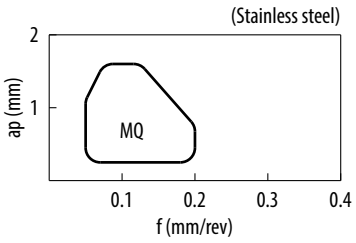




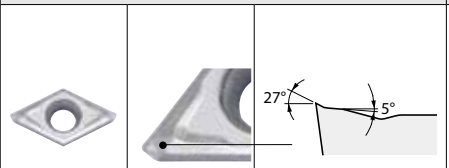
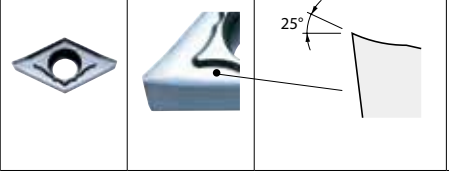
Stainless steel

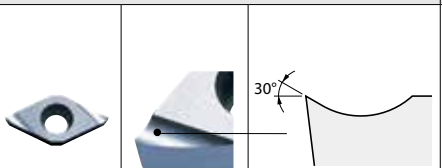
Cutting range	Name	Design	Advantages
Finishing	MQ		• Good chip evacuation at internal turning • Small curled chips • Prevents chip entanglement with toolholder and stabilizes surface roughness

Applicable chipbreaker range (ap indicates radius)

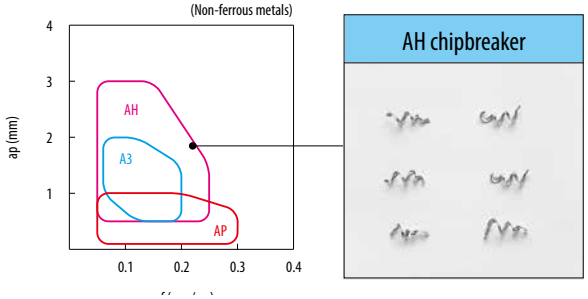


Non-ferrous metals

Cutting range	Name	Design	Advantages
Finishing	AP		• Curved edge and shape of chipbreaker lead good chip control • Sharp cutting edge provides excellent surface finish • Polished chipbreaker
Finishing - Medium	AH		• Positive chip groove and good chip control with low cutting force • Polished surface reduces adhesion

Cutting range	Name	Design	Advantages
Finishing - Medium	A3		• Large rake angle, smooth chip flow and less adhesion • Superior cutting performance achieved by sharp edge

Applicable chipbreaker range (ap indicates radius)

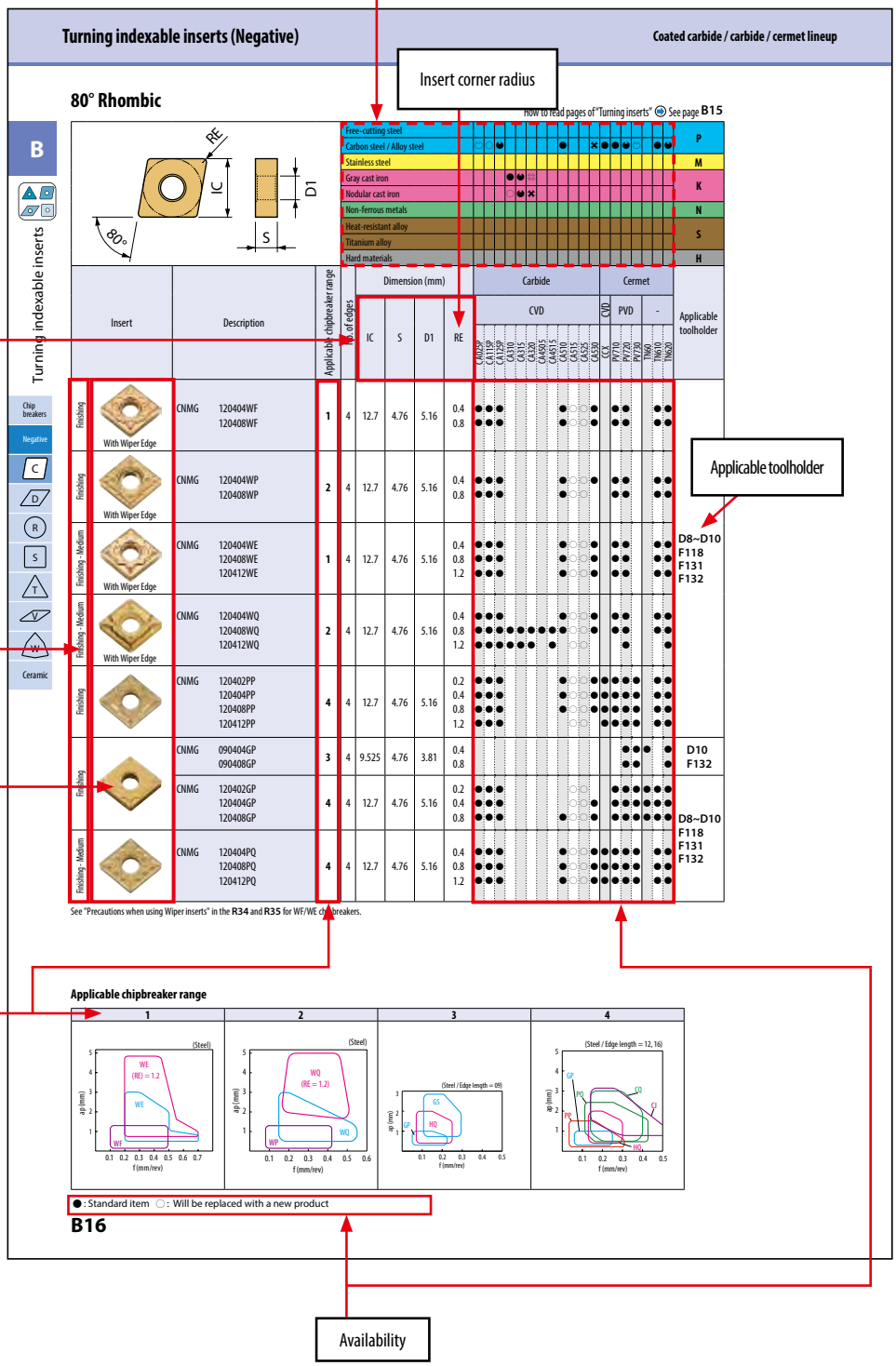


How to read pages of turning inserts

· Ref. to below for page contents of "Turning Inserts"
· Some contents are same in Chapter C

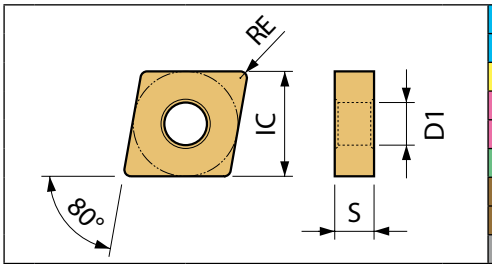
Classification of usage
**: Interruption / 1st Choice
**: Interruption / 2nd Choice
**: Light interruption / 1st Choice
**: Light interruption / 2nd Choice
**: Continuous / 1st Choice
**: Continuous / 2nd Choice
(In case hardness is 45HRC or under)

Recommended grades for each applications and workpiece materials are shown here.



80° Rhombic

How to read pages of "Turning inserts" See page B15

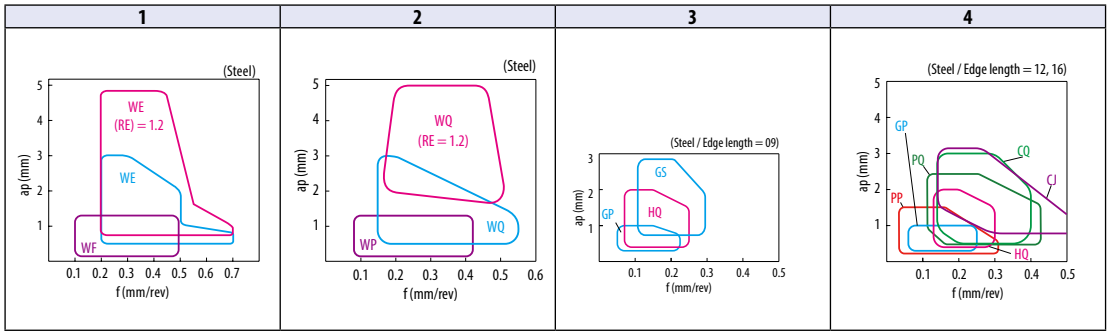


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	CNMG	120404WF 120408WF	1	4	12.7	4.76	5.16	0.4 0.8	●●● ●●●								●○○● ●○○●				●● ●●			●● ●●			D8~D10 F118 F131 F132
Finishing	 With Wiper Edge	CNMG	120404WP 120408WP	2	4	12.7	4.76	5.16	0.4 0.8	●●● ●●●								●○○● ●○○				●● ●●			●● ●●			
Finishing - Medium	 With Wiper Edge	CNMG	120404WE 120408WE 120412WE	1	4	12.7	4.76	5.16	0.4 0.8 1.2	●●● ●●● ●●●								●○○● ●○○● ●○○●				●● ●● ●●			●● ●● ●●			
Finishing - Medium	 With Wiper Edge	CNMG	120404WQ 120408WQ 120412WQ	2	4	12.7	4.76	5.16	0.4 0.8 1.2	●●● ●●● ●●●								●○○● ●○○● ○○○				●● ●● ●			●● ●● ●			
Finishing		CNMG	120402PP 120404PP 120408PP 120412PP	4	4	12.7	4.76	5.16	0.2 0.4 0.8 1.2	●●● ●●● ●●● ●●●								●○○● ●○○● ●○○● ○○○				●●● ●●● ●●● ●●●			●● ●● ●● ●●			
Finishing		CNMG	090404GP 090408GP	3	4	9.525	4.76	3.81	0.4 0.8														●● ●●		●		●	D10 F132
		CNMG	120402GP 120404GP 120408GP	4	4	12.7	4.76	5.16	0.2 0.4 0.8	●●● ●●● ●●●								○○ ●○○● ●○○●				●●● ●●● ●●●			●● ●● ●●		D8~D10 F118 F131 F132
Finishing - Medium		CNMG	120404PQ 120408PQ 120412PQ	4	4	12.7	4.76	5.16	0.4 0.8 1.2	●●● ●●● ●●●								●○○● ●○○● ●○○●				●●● ●●● ●●●			●● ●● ●●			

See "Precautions when using Wiper inserts" in the **R34** and **R35** for WF/WE chipbreakers.

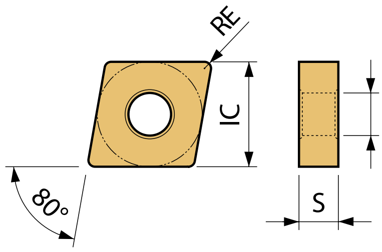
Applicable chipbreaker range



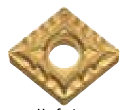
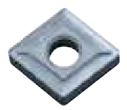
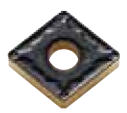
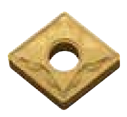
● : Standard item ○ : Will be replaced with a new product

80° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

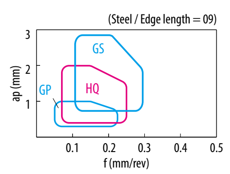


Work material		CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1535	CCX	PV710	PV720	PV730	TN60	TN610	TN620
P	Free-cutting steel																	
P	Carbon steel / Alloy steel	◌	○	◐	●			✖				●	●	◐	◌		●	◐
M	Stainless steel								●	◐	◐							
K	Gray cast iron																	
K	Nodular cast iron																	
N	Non-ferrous metals																	
S	Heat-resistant alloy								○	◌	◐							
S	Titanium alloy										◐							
H	Hard materials																	

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1535	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		CNMG	090404HQ	1	4	9.525	4.76	3.81	0.4	●	●	●		○	○	●				●		●	●	●		●	D10 F132
			090408HQ						0.8	●	●	●	●	○	○	●				●		●	●	●		●	
		CNMG	120404HQ	2	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	D8~D10 F118 F131 F132
			120408HQ						0.8	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	
			120412HQ						1.2	●	●	●		○	○	●			●	●		●	●	●		●	
Finishing - Medium	 Up facing	CNMG	120404CQ	2	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●					●	●	●		●	●	
			120408CQ						0.8	●	●	●	●	○	○	●					●	●	●	●	●	●	
			120412CQ						1.2	●	●	●	●	○	○	●											
		CNMG	160608CQ	2	4	15.875	6.35	6.35	0.8	●	●	●	●	○	○	●											D10
			160612CQ						1.2	●	●	●	●	○	○												
Finishing - Medium	 Up facing	CNMG	120408CJ	2	4	12.7	4.76	5.16	0.8	●	●	●	●	○	○	●											D8~D10 F118 F131 F132
			120412CJ						1.2	●	●	●	●	○	○	●											
		CNMG	160612CJ	2	4	15.875	6.35	6.35	1.2	●	●	●		○		●											D10
			160616CJ						1.6	●	●	●		○	○	●											
Medium		CNMG	120404TN-V	3	4	12.7	4.76	5.16	0.4															●			D8~D10 F118 F131 F132
			120408TN-V						0.8															●			
Medium - Roughing		CNMG	120404PMG	4	4	12.7	4.76	5.16	0.4		●	●															D8~D10 F118 F131 F132
			120408PMG						0.8		●	●															
			120412PMG						1.2		●	●															
			120416PMG						1.6		●	●															
		CNMG	160608PMG	5	4	15.875	6.35	6.35	0.8		●	●															D10
			160612PMG						1.2		●	●															
			160616PMG						1.6		●	●															
Medium - Roughing		CNMG	090404GS	1	4	9.525	4.76	3.81	0.4	●	●	●		○	○	●						●	●			●	D10 F132
			090408GS						0.8	●	●	●	●	○	○	●						●	●	●		●	
		CNMG	120404GS	4	4	12.7	4.76	5.16	0.4	●				○	○	●						●	●			●	D8~D10 F118 F131 F132
			120408GS						0.8	●			●	○	○	●						●	●			●	
			120412GS						1.2	●				○	○	●											

Applicable chipbreaker range

1



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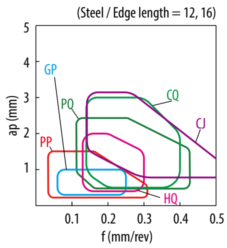

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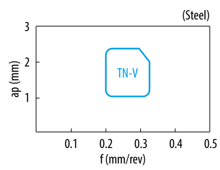

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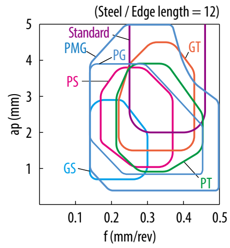

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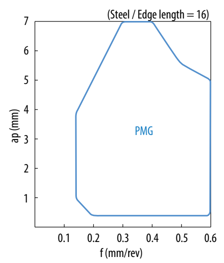
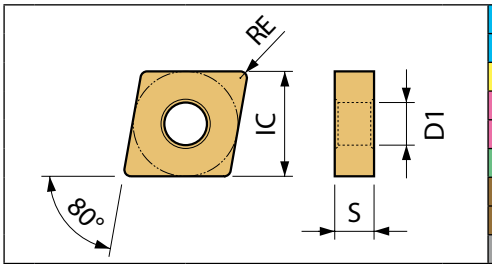


● : Standard item ○ : Will be replaced with a new product

80° Rhombic

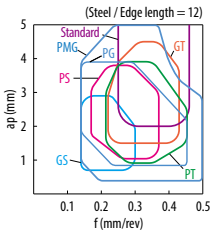
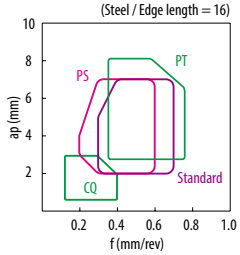
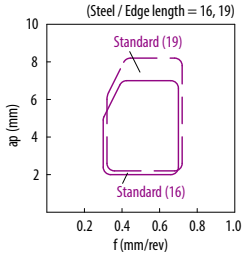
How to read pages of "Turning inserts" See page B15



Workpiece	
Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD CVD PR1535	CCX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Medium - Roughing	CNMG 120404PG 120408PG 120412PG 120416PG	1	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●		●						●	○	○	●			●			●	●	●		●	●	D8~D10 F118 F131 F132
Medium - Roughing	CNMG 120404PS 120408PS 120412PS 120416PS	1	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●								●	○	○	●	●	●					●	●			●	
	CNMG 160612PS 160616PS	2	4	15.875	6.35	6.35	1.2 1.6	● ●								●	○	○	●	●	●										D10
Medium - Roughing	CNMG 120408PT 120412PT	1	4	12.7	4.76	5.16	0.8 1.2	● ●								●	○	○	●	●	●										D8~D10 F118, F131 F132
Medium - Roughing	CNMG 160608PT 160612PT 160616PT	2	4	15.875	6.35	6.35	0.8 1.2 1.6	● ● ●								●	○	○	●	●	●										D10
Medium - Roughing	CNMG 120408GT 120412GT	1	4	12.7	4.76	5.16	0.8 1.2	● ●								●	○	○	●												D8~D10 F118 F131 F132
Roughing	CNMG 120404 120408 120412 120416	1	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	
	CNMG 160608 160612 160616	2	4	15.875	6.35	6.35	0.8 1.2 1.6	● ● ●	●	●	●	●	●		●		○	○	●												D10
	CNMG 190608 190612 190616	3	4	19.05	6.35	7.94	0.8 1.2 1.6	 ● ●			●	●	●		●		○		●												

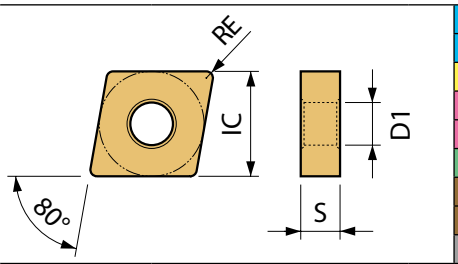
Applicable chipbreaker range

1	2	3
		

● : Standard item ○ : Will be replaced with a new product

80° Rhombic

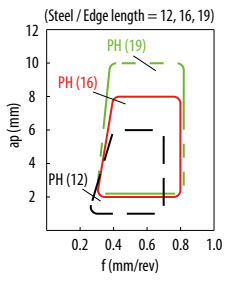
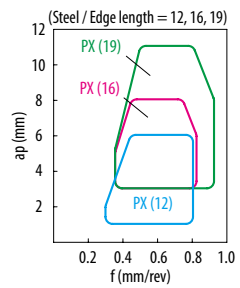
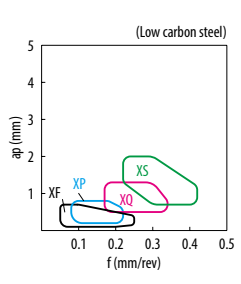
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Roughing		CNMG	120408PH 120412PH 120416PH	1	4	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ○	○ ○ ○	● ● ●									D8~D10 F118, F131 F132
		CNMG	160608PH 160612PH 160616PH	1	4	15.875	6.35	6.35	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●					● ● ●	● ● ●	○ ○ ○	● ● ●									
		CNMG	190608PH 190612PH 190616PH 190624PH	1	4	19.05	6.35	7.94	0.8 1.2 1.6 2.4	● ● ● ●	● ● ● ●	● ● ● ●					● ● ○ ○	○ ○ ○ ○	○ ○ ○ ○	● ● ● ○								D10
Roughing	 High feed / Single-sided	CNMM	120408PX 120412PX 120416PX	2	2	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●					● ● ●	○ ○ ○	○ ○ ○	● ● ○								D8~D10 F118 F131 F132
		CNMM	160608PX 160612PX 160616PX	2	2	15.875	6.35	6.35	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●						○ ○ ○	○ ○ ○	● ● ●								D10
		CNMM	190608PX 190612PX 190616PX 190624PX	2	2	19.05	6.35	7.94	0.8 1.2 1.6 2.4	● ● ● ●	● ● ● ●	● ● ● ●						○ ○ ○ ○	○ ○ ○ ○	○ ● ● ●									
Low carbon steel	 Finishing / Minute ap	CNMG	120404XF 120408XF	3	4	12.7	4.76	5.16	0.4 0.8												● ●	● ●	● ●	● ●		● ●	● ●	D8~D10 F118 F131 F132
Low carbon steel	 Finishing	CNMG	120404XP 120408XP	3	4	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●						○ ○	○ ○	○ ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	
Low carbon steel	 Medium	CNMG	120404XQ 120408XQ	3	4	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●					● ●	○ ○	○ ○	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	

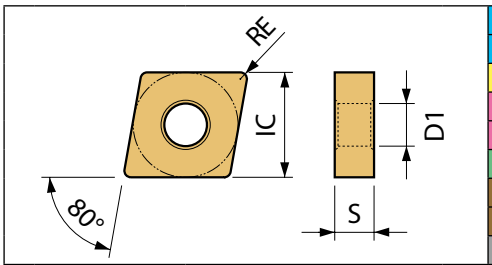
Applicable chipbreaker range

1	2	3
		

● : Standard item ○ : Will be replaced with a new product

80° Rhombic

How to read pages of "Turning inserts" See page B15

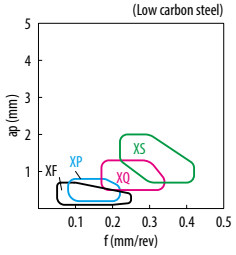
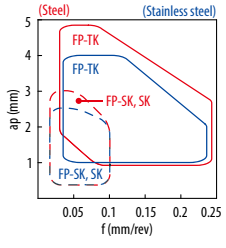
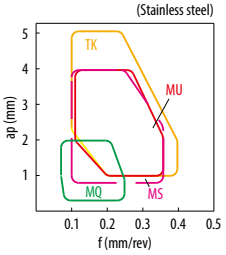
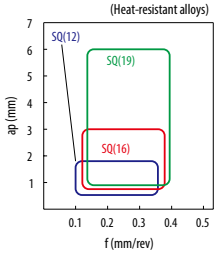


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR005S	PR115S	PR120S	PR1225	PR1535	PR1725	Carbide - SW05	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Low carbon steel	 Roughing	CNMG 120408XS	1	4	12.7	4.76	5.16	0.8	●	●	●	●	○	○	●											●	●	●	●	●	●	D8~D10 F118 F131 F132
Finishing - Medium	 Polished / Sharp edge	CNGG 120402MFP-SK 120404MFP-SK	2	4	12.7	4.76	5.16	< 0.2 < 0.4										●	●	●	●	●	●				●						D8~D10 E63 F118 F131 F132
Medium - Roughing	 Polished / Sharp Edge	CNGG 120404FP-TK 120408FP-TK	2	4	12.7	4.76	5.16	0.4 0.8													●	●	●									
Stainless steel / Heat-resistant alloys	 Medium - Roughing / Sharp edge	CNGG 120404TK 120408TK	3	4	12.7	4.76	5.16	0.4 0.8																●								
	 Medium - Roughing	CNMG 120404TK 120408TK	3	4	12.7	4.76	5.16	0.4 0.8								●	●	●	●	●	●	●										D8~D10 F118 F131 F132
	 Finishing - Medium	CNMG 120404MQ 120408MQ	3	4	12.7	4.76	5.16	0.4 0.8								●	●	●	●	●	●	●		●							
Heat-resistant alloys	 Finishing - Medium	CNMG 120404SQ 120408SQ 120412SQ	4	4	12.7	4.76	5.16	0.4 0.8 1.2										●	●	●											
		CNMG 160612SQ 160616SQ	4	4	15.875	6.35	6.35	1.2 1.6										●	●	●											D10
		CNMG 190612SQ 190616SQ	4	4	19.05	6.35	7.94	1.2 1.6										●	●	●											

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

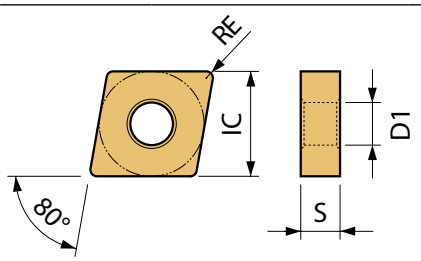
Applicable chipbreaker range

1	2	3	4
		Heat-resistant alloys Titanium alloys See page B8 	

● : Standard item ○ : Will be replaced with a new product

80° Rhombic

How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA6515	CVD CA6525	PVD PR0055	PVD PR1155	PVD PR1205	PVD PR1535	- SW05	Applicable toolholder
Stainless steel / Heat-resistant alloys	Medium - Roughing	CNMG	120404MS 120408MS 120412MS 120416MS	1	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	●	●	●	●	●	●	●	D8~D10 F118 F131 F132
	Medium - Roughing	CNMG	120404MU 120408MU 120412MU	1	4	12.7	4.76	5.16	0.4 0.8 1.2	●	●	●	●	●	●	●	
	Medium - Roughing	CNMG	160608MU 160612MU 160616MU	1	4	15.875	6.35	6.35	0.8 1.2 1.6	●	●	●	●	●	●		D10
		CNMG	190612MU 190616MU	2	4	19.05	6.35	7.94	1.2 1.6			●	●	●	●		
Heat-resistant alloys	Roughing	CNMG	120408SG 120412SG	3	4	12.7	4.76	5.16	0.8 1.2			●	●	●	●	●	D8~D10 F118, F131 F132
	Roughing	CNMG	160612SG 160616SG	3	4	15.875	6.35	6.35	1.2 1.6			●	●	●	●	●	D10
		CNMG	190612SG 190616SG	3	4	19.05	6.35	7.94	1.2 1.6			●	●	●	●	●	
Heat-resistant alloys	Roughing / Single-sided	CNMM	1204XR-SX 1204XL-SX	4	2	12.7	4.42	5.16	-			●	●	●			D8~D10
	Roughing / Single-sided	CNMM	1606XR-SX 1606XL-SX	4	2	15.875	5.96	6.35	-			●	●	●			D10
		CNMM	1906XR-SX 1906XL-SX	4	2	19.05	5.93	7.94	-			●	●	●			

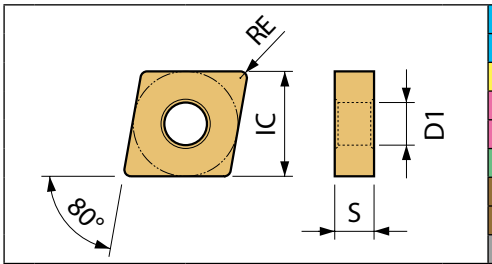
Applicable chipbreaker range

1	2	3	4
Heat-resistant alloys Titanium Alloys See page B8	(Stainless steel) TK, MU, MQ, MS; ap (mm) 1–5; f (mm/rev) 0.1–0.5	(Stainless steel) MU (Edge length = 19); ap (mm) 1–5; f (mm/rev) 0.1–0.5	(Heat-resistant alloys) SG(12), SG(19), SG(16); ap (mm) 1–7; f (mm/rev) 0.1–0.5	(Heat-resistant alloys) SX(12), SX(19), SX(16); ap (mm) 1–7; f (mm/rev) 0.1–0.5

● : Standard item

80° Rhombic

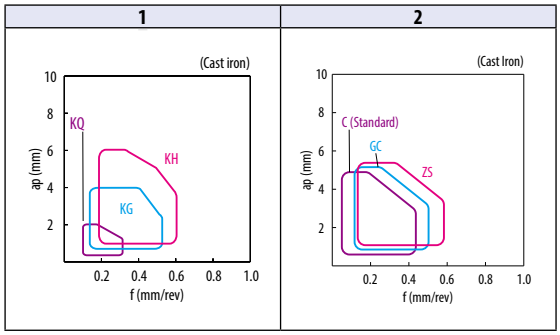
How to read pages of "Turning inserts" See page B15



Free-cutting steel		P
Carbon steel / Alloy steel		P
Stainless steel		M
Gray cast iron	● ● ❄ ❄ ● ●	K
Nodular cast iron	○ ● ✖ ○ ○	K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm)				Carbide									Cermet			Applicable toolholder
						IC	S	D1	RE	CVD					-	CVD		PVD				
										CA310	CA315	CA320	CA4505	CA4515	KW10	CCX		PV7005				
Cast iron	Sharp cutting oriented	CNMG	120404KQ 120408KQ 120412KQ	1	4	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●										
Cast iron	Roughing	CNMG	120404KG 120408KG 120412KG	1	4	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●										D8~D10 F118 F131 F132
Cast iron	Roughing	CNMG	120408KH 120412KH 120416KH	1	4	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●										
Cast iron	Roughing	CNMG	120404C 120408C 120412C 120416C	2	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●	● ● ● ●	● ● ● ●	● ● ●	● ● ●								
		CNMG	160612C	2	4	15.875	6.35	6.35	1.2	●	●	●		●								D10
Cast iron	Roughing	CNMG	120408ZS 120412ZS	2	4	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●								
Cast iron	Roughing	CNMG	120408GC 120412GC	2	4	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●								D8~D10 F118 F131 F132
Cast iron	Without chipbreaker	CNGA	120404 120408	-	4	12.7	4.76	5.16	0.4 0.8						● ●			●				
		CNMA	120404 120408 120412 120416	-	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ●	● ●		● ●				

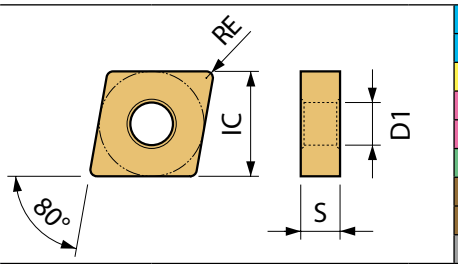
Applicable chipbreaker range



● : Standard item

80° Rhombic

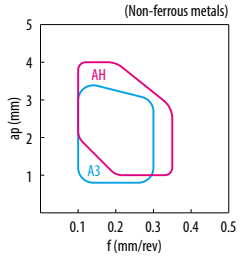
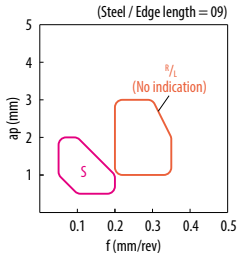
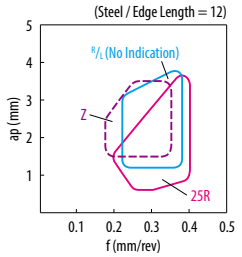
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide DLC PDL010	Carbide DLC PDL025	Carbide - KW10	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
Non-ferrous metals	Finishing - Medium / Sharp edge	CNGG	120404R-A3	1	4	12.7	4.76	5.16	0.4	●	●	●							D8~D10 F118 F131 F132
			120404L-A3						0.4	●	●	●							
			120408R-A3						0.8	●	●	●							
			120408L-A3						0.8	●	●	●							
Non-ferrous metals	Finishing - Medium / Sharp edge	CNGG	120404AH	1	4	12.7	4.76	5.16	0.4	●	●	●							
			120408AH						0.8	●	●	●							
Non-ferrous metals	Medium - Roughing	CNMG	120404AH	1	4	12.7	4.76	5.16	0.4	●	●	●							
			120408AH						0.8	●	●	●							
Finishing	Sharp edge / Surface finish oriented	CNGG	090402R-S	2	4	9.525	4.76	3.81	0.2				●	●		●	●	●	D10 F132
			090402L-S						0.2				●	●		●	●	●	
			090404R-S						0.4				●	●		●	●	●	
			090404L-S						0.4			●	●	●		●	●	●	
			090408R-S						0.8				●				●		
			090408L-S						0.8				●				●		
Medium		CNGG	090404L	2	4	9.525	4.76	3.81	0.4			●							
			090408L						0.8			●							
		CNGG	120404R	3	4	12.7	4.76	5.16	0.4				●	●	●	●	●	●	
			120404L						0.4				●	●	●	●	●	●	
			120408R						0.8				●	●	●	●	●	●	
			120408L						0.8				●	●	●		●	●	
Medium - Roughing	Low cutting force	CNGG	120404R-25R	3	4	12.7	4.76	5.16	0.4			●	●	●		●	●	●	D8~D10 F118 F131 F132
			120404L-25R						0.4			●	●	●		●	●	●	
			120408R-25R						0.8			●	●	●			●	●	
			120408L-25R						0.8			●	●	●			●	●	
Medium - Roughing		CNGG	120404Z	3	4	12.7	4.76	5.16	0.4							●			

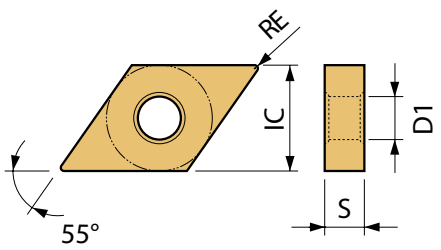
Applicable chipbreaker range

1	2	3
		

● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15

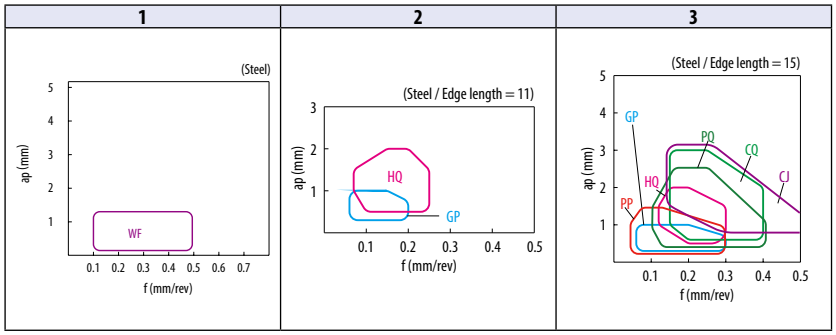


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	Cermet CVD COX	PVD PV710	PV720	PVD PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	DNMX	150404WF	1	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●		●	●			●	●	D13, D14, D16 F120, F136 F138, F140
			150408WF						0.8	●	●	●	●	○	○	●		●	●			●	●	
			150412WF						1.2	●	●	●	●	○	○	●		●	●			●	●	
		DNMX	150604WF	1	4	12.7	6.35	5.16	0.4	●	●	●	●	○	○	●		●	●			●	●	D13, D14, D16
			150608WF						0.8	●	●	●	●	○	○	●		●	●			●	●	
			150612WF						1.2	●	●	●	●	○	○	●		●	●			●	●	
Finishing		DNMG	150402PP	3	4	12.7	4.76	5.16	0.2	●	●	●		○	○	●	●	●	●	●		●	●	D13~D17 F120, F136 F138~F140
			150404PP						0.4	●	●	●	●	○	○	●	●	●	●	●		●	●	
			150408PP						0.8	●	●	●	●	○	○	●	●	●	●	●		●	●	
			150412PP						1.2	●	●	●	●	○	○	●	●	●	●	●		●	●	
		DNMG	150602PP	3	4	12.7	6.35	5.16	0.2	●	●	●		○	○		●	●	●	●		●	●	D13~D17
			150604PP						0.4	●	●	●	●	○	○		●	●	●	●		●	●	
			150608PP						0.8	●	●	●	●	○	○		●	●	●	●		●	●	
			150612PP						1.2	●	●	●		○			●	●	●	●		●	●	
Finishing		DNMG	110404GP	2	4	9.525	4.76	3.81	0.4	●	●	●		○	○	●			●	●	●		●	D16 F120, F134
			110408GP						0.8	●	●	●	●	○	○				●	●	●		●	
		DNMG	150402GP	3	4	12.7	4.76	5.16	0.2	●	●	●	●	○	○			●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
			150404GP						0.4	●	●	●	●	○	○	●		●	●	●	●	●	●	
			150408GP						0.8	●	●	●	●	○	○	●		●	●	●	●	●	●	
		DNMG	150602GP	3	4	12.7	6.35	5.16	0.2									●			●			D13~D17
			150604GP						0.4									●			●			
			150608GP						0.8									●			●			
Finishing - Medium		DNMG	150404PQ	3	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●	●	●	●	●		●	●	D13~D17 F120, F136 F138~F140
			150408PQ						0.8	●	●	●	●	○	○	●	●	●	●	●		●	●	
			150412PQ						1.2	●	●	●	●	○	○	●	●	●	●	●		●	●	
		DNMG	150604PQ	3	4	12.7	6.35	5.16	0.4	●	●	●	●	○	○	●	●	●	●	●		●	●	D13~D17
			150608PQ						0.8	●	●	●	●	○	○	●	●	●	●	●		●	●	
			150612PQ						1.2	●	●	●		○	○		●	●	●	●		●	●	

See "Precautions when using Wiper inserts" in the **R34** and **R35** for WF chipbreaker.

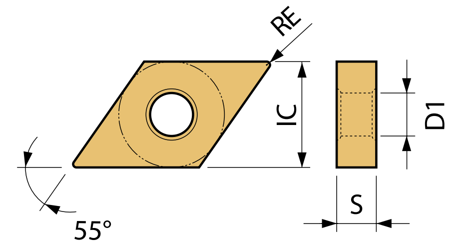
Applicable chipbreaker range



● : Standard item ○ : Will be replaced with a new product

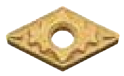
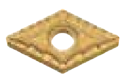
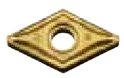
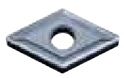
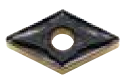
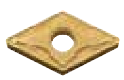
55° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

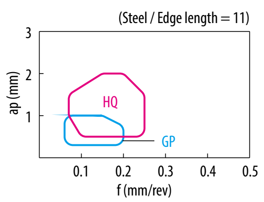
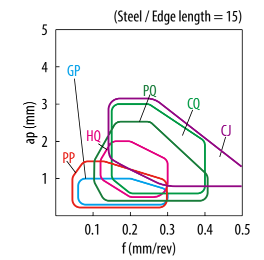
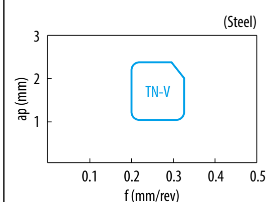
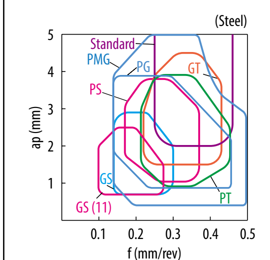


Work material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1535	CCX	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel																		P
Carbon steel / Alloy steel	◔	○	◕	●			✱				●	●	◕	◔		●	◕	P
Stainless steel								●	◕	◕								M
Gray cast iron																		K
Nodular cast iron																		K
Non-ferrous metals																		N
Heat-resistant alloy								○	◔	◕								S
Titanium alloy										◕								S
Hard materials																		H

Dimension (mm): IC, S, D1, RE. Carbide: CVD (CA025P, CA115P, CA125P, CA510, CA515, CA525, CA530, CA6515, CA6525), PVD (PR1535). Cermet: CVD (CCX), PVD (PV710, PV720, PV730), - (TN60, TN610, TN620).

	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1535	CCX	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		DNMG	110402HQ	1	4	9.525	4.76	3.81	0.2	●	●	●		○	○	●				●		●	●	●		●	D16 F120, F134
			110404HQ						0.4	●	●	●	●	○	○					●		●	●	●		●	
		DNMG	150404HQ	2	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
			150408HQ						0.8	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	
			150412HQ						1.2	●	●	●		○	○	●				●	●	●	●	●	●	●	
		DNMG	150604HQ	2	4	12.7	6.35	5.16	0.4	●	●	●	●	○	○	●	●	●	●	●	●				●		D13~D17
			150608HQ						0.8	●	●	●		○	○		●	●	●	●	●				●		
			150612HQ						1.2	●	●	●		○	○					●	●				●		
Finishing - Medium	 Up facing	DNMG	150404CQ	2	4	12.7	4.76	5.16	0.4	●	●	●	●	○	○	●					●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
			150408CQ						0.8	●	●	●	●	○	○	●					●	●	●	●	●	●	
			150412CQ						1.2	●	●	●	●	○	○	●					●	●	●		●	●	
		DNMG	150604CQ	2	4	12.7	6.35	5.16	0.4	●	●	●		○	○						●				●		D13~D17
			150608CQ						0.8	●	●	●	●	○	○	●											
			150612CQ						1.2	●	●	●	●	○	○	●											
Finishing - Medium	 Up facing	DNMG	150408CJ	2	4	12.7	4.76	5.16	0.8	●	●	●		○	○												D13~D17 F120, F136 F138~F140
			150412CJ						1.2	●	●	●		○	○												
		DNMG	150608CJ	2	4	12.7	6.35	5.16	0.8	●	●	●		○	○												D13~D17
			150612CJ						1.2	●	●	●	●	○	○												
Medium		DNMG	150404TN-V	3	4	12.7	4.76	5.16	0.4															●			D13~D17 F120, F136 F138~F140
			150408TN-V						0.8															●			
Medium - Roughing		DNMG	150404PMG	4	4	12.7	4.76	5.16	0.4		●	●															D13~D17 F120, F136 F138~F140
			150408PMG						0.8		●	●															
			150412PMG						1.2		●	●															
			150416PMG						1.6		●	●															
		DNMG	150604PMG	4	4	12.7	6.35	5.16	0.4		●	●															D13~D17
			150608PMG						0.8		●	●															
			150612PMG						1.2		●	●															
			150616PMG						1.6		●	●															
Medium - Roughing		DNMG	110404GS	4	4	9.525	4.76	3.81	0.4	●	●	●		○	○	●						●	●	●		●	D16 F120, F134
			110408GS						0.8	●	●	●	●	○	○	●						●	●	●		●	
		DNMG	150404GS	4	4	12.7	4.76	5.16	0.4	●				○	○							●	●			●	D13~D17 F120, F136 F138~F140
			150408GS						0.8	●				○	○	●						●	●			●	
			150412GS						1.2	●				○	○												
		DNMG	150604GS	4	4	12.7	6.35	5.16	0.4	●					○												D13~D17
			150608GS						0.8	●					○												

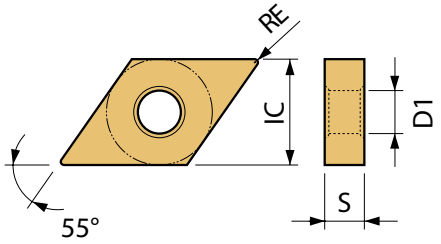
Applicable chipbreaker range

1	2	3	4
			

● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" See page B15

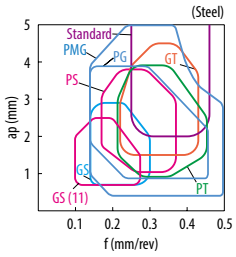


Free-cutting steel		P
Carbon steel / Alloy steel	○ ○ ● ● ✖ ● ● ● ● ○ ● ●	P
Stainless steel	● ● ●	M
Gray cast iron		K
Nodular cast iron		K
Non-ferrous metals		N
Heat-resistant alloy	○ ○ ●	S
Titanium alloy	●	S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1535	Cermet PVD PV710	PV720	PV730	Cermet - TN610	TN620	Applicable toolholder
Medium - Roughing		DNMG	150404PG 150408PG 150412PG 150416PG	1	4	12.7	4.76	5.16	0.4 0.8 1.2 1.6	●	●	●	●	○	○				●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
		DNMG	150604PG 150608PG 150612PG 150616PG	1	4	12.7	6.35	5.16	0.4 0.8 1.2 1.6	●	●	●	●	○	○	●			●	●	●	●	●	●	D13~D17
Medium - Roughing		DNMG	150404PS 150408PS 150412PS	1	4	12.7	4.76	5.16	0.4 0.8 1.2	●	●		●	○	○	●	●	●			●	●		●	D13~D17 F120, F136 F138~F140
		DNMG	150604PS 150608PS 150612PS 150616PS	1	4	12.7	6.35	5.16	0.4 0.8 1.2 1.6	●	●		●	○	○	●	●	●							D13~D17
Medium - Roughing	 High feed	DNMG	150408PT 150412PT	1	4	12.7	4.76	5.16	0.8 1.2	●	●		●	○	○	●		●								D13~D17 F120, F136 F138~F140
		DNMG	150608PT 150612PT	1	4	12.7	6.35	5.16	0.8 1.2	●	●		●	○	○	●	●	●								D13~D17
Medium - Roughing	 High feed	DNMG	150408GT 150412GT	1	4	12.7	4.76	5.16	0.8 1.2	●	●			○	○	●										D13~D17 F120, F136 F138~F140
		DNMG	150608GT 150612GT	1	4	12.7	6.35	5.16	0.8 1.2	●	●		●	○	○	●										D13~D17

Applicable chipbreaker range

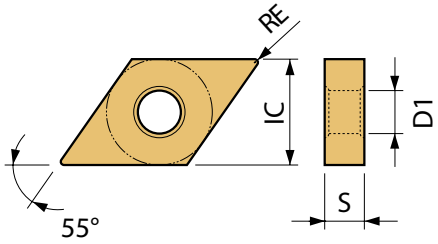
1



● : Standard item ○ : Will be replaced with a new product

55° Rhombic

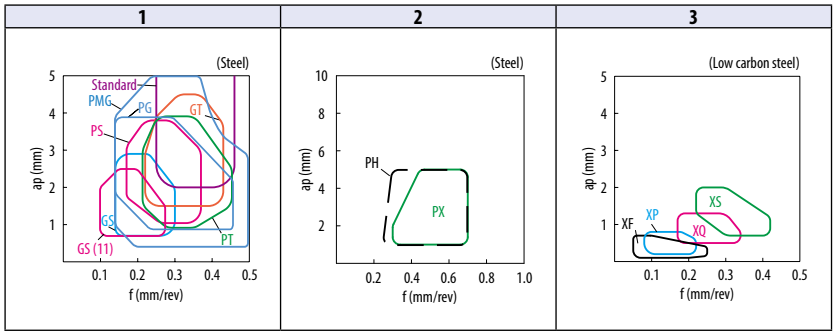
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	Cermet CVD CCX	PVD PV7005	PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Roughing		DNMG	150404 150408 150412	1	4	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	○ ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D13~D17 F120, F136 F138~F140
		DNMG	150604 150608 150612	1	4	12.7	6.35	5.16	0.4 0.8 1.2	 ● ●	 ● ●	 ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	 ○ ○	 ○ ○	 ● ●	 	 	 	 	 	 	 	D13~D17
Roughing		DNMG	150408PH 150412PH 150416PH	2	4	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● 	● 	○ ○ 	○ ○ 	 ●	 	 	 	 	 	 	 	 	D13~D17 F120, F136 F138~F140
		DNMG	150608PH 150612PH 150616PH	2	4	12.7	6.35	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● 	 	● 	○ ○ 	○ ○ 	○ ○ ●	 	 	 	 	 	 	 	 	 	D13~D17
Roughing	High feed / Single-sided	DNMM	150408PX 150412PX 150416PX	2	2	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	 	 	 	 	 	 	 	○ ● 	 	 	 	 	 	 	 	 	 	D13~D17 F120, F136 F138~F140
		DNMM	150608PX 150612PX 150616PX	2	2	12.7	6.35	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	 	 	 	 	 	 	○ ○ 	○ ○ ●	 	 	 	 	 	 	 	 	 	 	D13~D17
Low carbon steel	Finishing / Minute ap	DNMG	150404XF 150408XF	3	4	12.7	4.76	5.16	0.4 0.8	 	 	 	 	 	 	 	 	 	 	● ●	 	● ●	● ●	● ●	 	● ●	● ●	D13~D17 F120, F136 F138~F140
Low carbon steel	Finishing	DNMG	150404XP 150408XP	3	4	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●	 	 	 	 	 	○ ○	○ ○	○ ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	
		DNMG	150604XP 150608XP	3	4	12.7	6.35	5.16	0.4 0.8	 	 	 	 	 	 	 	 	 	 	 	● ●	 	● ●	 	 	 	● ●	 	D13~D17
Low carbon steel	Medium	DNMG	150404XQ 150408XQ	3	4	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●	 	 	 	 	 	○ ○	○ ○	● ●	● ●	 	● ●	● ●	● ●	● ●	● ●	● ●	● ●	D13~D17 F120, F136 F138~F140
Low carbon steel	Roughing	DNMG	150408XS	3	4	12.7	4.76	5.16	0.8	●	●	●	 	 	 	 	 	○	○	●	 	 	●	●	●	 	●	●	 	

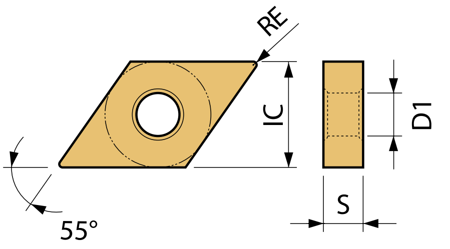
Applicable chipbreaker range



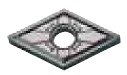
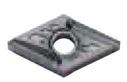
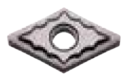
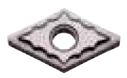
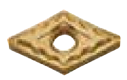
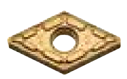
● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" ➡ See page **B15**



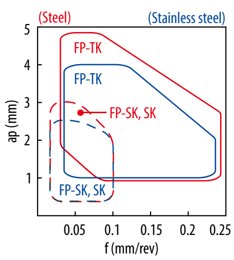
Work material	CA6515	CA6525	PR005S	PR115S	PR120S	PR1225	PR1535	PR1725	SW05	PV730	
Free-cutting steel											P
Carbon steel / Alloy steel						◔		◕		◔	P
Stainless steel	●	◕		○	◔	◔	◕	◔			M
Gray cast iron											K
Nodular cast iron											K
Non-ferrous metals											N
Heat-resistant alloy	○	◔	●	○	◕		✖				S
Titanium alloy							◕		◔		S
Hard materials											H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA6515	CA6525	PVD PR005S	PR115S	PR120S	PR1225	PR1535	PR1725	- SW05	Cermet PVD PV730	Applicable toolholder
Finishing - Medium	 Polished / Sharp edge	DNGG 150402MFP-SK	1	4	12.7	4.76	5.16	< 0.2				●	●	●	●	●		●	D13~D17 F120, F136 F138~F140
		DNGG 150404MFP-SK						< 0.4				●	●	●	●	●		●	
Large ap		DNMG 150402R-LD	2	4	12.7	4.76	5.16	0.2							●	●			
		DNMG 150404R-LD						0.4							●	●			
Medium - Roughing	 Polished / Sharp edge	DNGG 150404FP-TK	1	4	12.7	4.76	5.16	0.4						●	●	●			
		DNGG 150408FP-TK						0.8						●	●	●			
Stainless steel / Heat-resistant alloys	 Medium - Roughing / Sharp edge	DNGG 150404TK	3	4	12.7	4.76	5.16	0.4									●		
		DNGG 150408TK						0.8									●		
	 Medium - Roughing	DNMG 150404TK	3	4	12.7	4.76	5.16	0.4	●	●					●				
		DNMG 150408TK						0.8	●	●					●				
		DNMG 150604TK	3	4	12.7	6.35	5.16	0.4	●	●					●				D13~D17
		DNMG 150608TK						0.8	●	●					●				
	 Finishing - Medium	DNMG 150404MQ	3	4	12.7	4.76	5.16	0.4	●	●	●	●	●		●		●		D13~D17 F120, F136 F138~F140
		DNMG 150408MQ						0.8	●	●	●	●	●		●		●		
		DNMG 150604MQ	3	4	12.7	6.35	5.16	0.4	●	●	●	●	●		●		●		D13~D17
		DNMG 150608MQ						0.8	●	●	●	●	●		●		●		

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

1



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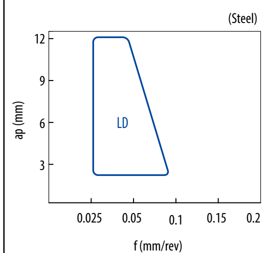
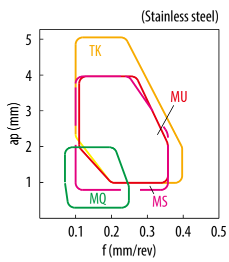


3

Heat-resistant alloys
Titanium alloys

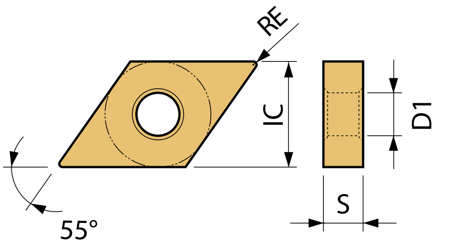
➡ See page **B8**



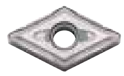
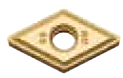
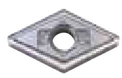
● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15

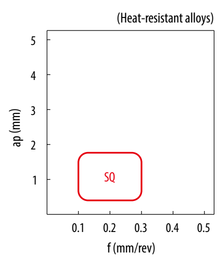


Work material		CA6515	CA6525	PR005S	PR115S	PR120S	PR1535	SW05
P	Free-cutting steel							
P	Carbon steel / Alloy steel							
M	Stainless steel	●	◕		○	◔	◕	
K	Gray cast iron							
K	Nodular cast iron							
N	Non-ferrous metals							
S	Heat-resistant alloy	○	◔	●	○	◕	✖	
S	Titanium alloy						◕	◔
H	Hard materials							

	Insert	Description	Applicable chipbreaker range	No. of edges	IC	S	D1	RE	CVD CA6515	CVD CA6525	PVD PR005S	PVD PR115S	PVD PR120S	PVD PR1535	- SW05	Applicable toolholder
Heat-resistant alloys	 Finishing - Medium	DNMG 150404SQ	1	4	12.7	4.76	5.16	0.4			●	●	●			D13~D17 F120, F136 F138~F140
		DNMG 150408SQ						0.8			●	●	●			
		DNMG 150412SQ						1.2			●	●	●			
		DNMG 150604SQ	1	4	12.7	6.35	5.16	0.4			●	●	●			D13~D17
		DNMG 150608SQ						0.8			●	●	●			
		DNMG 150612SQ						1.2			●	●	●			
Stainless steel / Heat-resistant alloys	 Medium - Roughing	DNMG 150404MS	2	4	12.7	4.76	5.16	0.4	●	●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
		DNMG 150408MS						0.8	●	●	●	●	●	●	●	
		DNMG 150412MS						1.2	●	●	●	●	●	●	●	
		DNMG 150604MS	2	4	12.7	6.35	5.16	0.4	●	●	●	●	●	●		D13~D17
		DNMG 150608MS						0.8	●	●	●	●	●	●		
		DNMG 150612MS						1.2	●	●	●	●	●	●		
	 Medium - Roughing	DNMG 150404MU	2	4	12.7	4.76	5.16	0.4	●	●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
		DNMG 150408MU						0.8	●	●	●	●	●	●	●	
		DNMG 150604MU	2	4	12.7	6.35	5.16	0.4	●	●	●	●	●	●	●	D13~D17
		DNMG 150608MU						0.8	●	●	●	●	●	●	●	
Heat-resistant alloys	 Roughing	DNMG 150408SG	3	4	12.7	4.76	5.16	0.8			●	●	●	●	●	D13~D17 F120, F136 F138~F140
		DNMG 150412SG						1.2			●	●	●	●	●	
		DNMG 150608SG	3	4	12.7	6.35	5.16	0.8			●	●	●	●	●	D13~D17
		DNMG 150612SG						1.2			●	●	●	●	●	

Applicable chipbreaker range

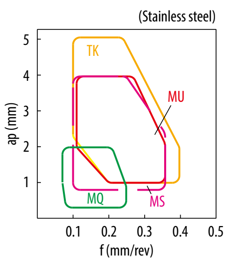
1



2

Heat-resistant alloys
Titanium alloys

See page B8



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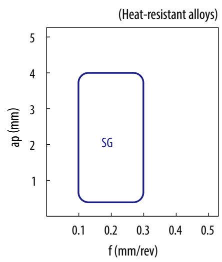
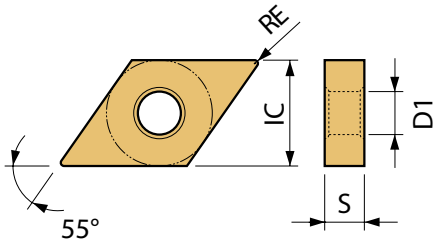


● : Standard item

55° Rhombic

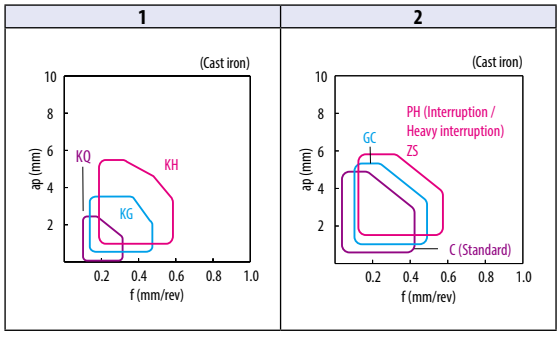
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	
Stainless steel	M
Gray cast iron	K
Nodular cast iron	
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA4505	CA4515	Applicable toolholder
Cast iron	 Sharp cutting oriented	DNMG 150404KQ 150408KQ	1	4	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●			D13~D17 F120, F136 F138~F140
		DNMG 150604KQ 150608KQ	1	4	12.7	6.35	5.16	0.4 0.8	● ●	● ●	● ●			D13~D17
Cast iron	 Roughing	DNMG 150404KG 150408KG 150412KG	1	4	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●			D13~D17 F120, F136 F138~F140
		DNMG 150604KG 150608KG 150612KG	1	4	12.7	6.35	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●			D13~D17
Cast iron	 Roughing	DNMG 150408KH 150412KH	1	4	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●			D13~D17 F120, F136 F138~F140
		DNMG 150608KH 150612KH	1	4	12.7	6.35	5.16	0.8 1.2	● ●	● ●	● ●			D13~D17
Cast iron	 Roughing	DNMG 150404C 150408C 150412C	2	4	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●		● ● ●	D13~D17 F120, F136 F138~F140
		DNMG 150604C 150608C 150612C	2	4	12.7	6.35	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●		● ●	D13~D17
Cast iron	 Roughing	DNMG 150408ZS 150412ZS	2	4	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●	D13~D17 F120, F136 F138~F140
		DNMG 150608ZS 150612ZS	2	4	12.7	6.35	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●	D13~D17
Cast iron	 Roughing	DNMG 150408GC 150412GC	2	4	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●		● ●	D13~D17 F120, F136 F138~F140
		DNMG 150608GC 150612GC	2	4	12.7	6.35	5.16	0.8 1.2	● ●	● ●	● ●		●	D13~D17

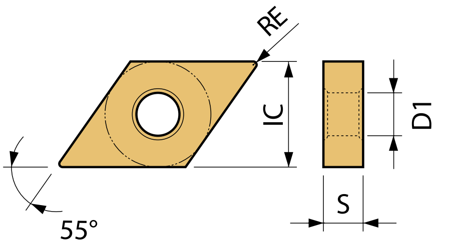
Applicable chipbreaker range



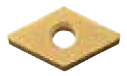
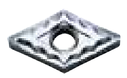
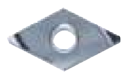
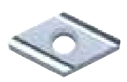
● : Standard item

55° Rhombic

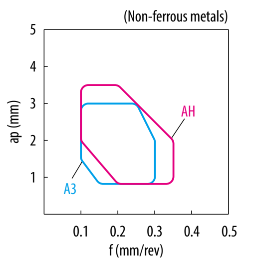
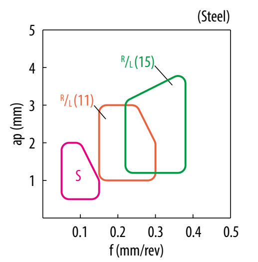
How to read pages of "Turning inserts" ➡ See page B15



Work material	CA310	CA315	CA320	CA4505	CA4515	PDL010	PDL025	PR930	KW10	CCX	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel																		P
Carbon steel / Alloy steel								○				●	◗	○		●	◗	P
Stainless steel								○										M
Gray cast iron	●	◗	✣						✣	●	●							K
Nodular cast iron	○	◗	✖							○	○							K
Non-ferrous metals						●	◗		✖									N
Heat-resistant alloy																		S
Titanium alloy									✣									S
Hard materials																		H

	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	CA310	CA315	CA320	CA4505	CA4515	PDL010	PDL025	PR930	KW10	CCX	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
						Dimension (mm)				Carbide: CVD					Carbide: DLC		Carbide: PVD	Carbide: -	Cermet: CVD	Cermet: PVD				Cermet: -			
Cast iron	 Without chipbreaker	DNMA	150404	-	4	12.7	4.76	5.16	0.4	●	●	●		●				●									D13~D17 F120, F136 F138~F140
			150408						0.8	●	●	●		●				●	●	●							
		DNMA	150604	-	4	12.7	6.35	5.16	0.4	●	●	●															D13~D17
			150608						0.8	●	●	●	●	●													
Non-ferrous metals	 Finishing - Medium / Sharp edge	DNGG	150404R-A3	1	4	12.7	4.76	5.16	0.4						●	●		●									D13~D17 F120, F136 F138~F140
			150404L-A3						0.4						●	●		●									
			150408R-A3						0.8						●	●		●									
			150408L-A3						0.8						●	●		●									
Non-ferrous metals	 Medium - Roughing / Sharp edge	DNGG	150404AH	1	4	12.7	4.76	5.16	0.4						●	●		●									
			150408AH						0.8						●	●		●									
		DNGG	150604AH	1	4	12.7	6.35	5.16	0.4									●									D13~D17
			150608AH						0.8									●									
Non-ferrous metals	 Medium - Roughing	DNMG	150404AH	1	4	12.7	4.76	5.16	0.4						●	●		●									D13~D17 F120, F136 F138~F140
			150408AH						0.8						●	●		●									
Finishing	 Sharp edge / Surface finish oriented	DNGG	110402R-S	2	4	9.525	4.76	3.81	0.2									●						●			D16 F120 F134
			110402L-S						0.2									●						●			
			110404R-S						0.4									●						●			
			110404L-S						0.4									●						●			
			110408R-S						0.8									●						●			
Medium		DNGG	110404R	2	4	9.525	4.76	3.81	0.4									●						●			
			110404L															●						●			
		DNGG	150404R	2	4	12.7	4.76	5.16	0.4								●	●		●	●	●	●	●	●	●	D13~D17 F120, F136 F138~F140
			150404L						0.4								●	●		●	●	●	●	●	●	●	
			150408R						0.8								●	●			●	●	●	●	●	●	
			150408L						0.8								●	●			●	●	●	●	●	●	

Applicable chipbreaker range

1	2
	

● : Standard item

Round

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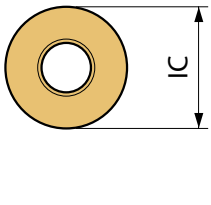
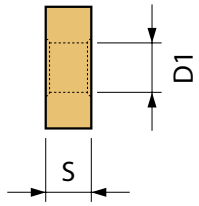
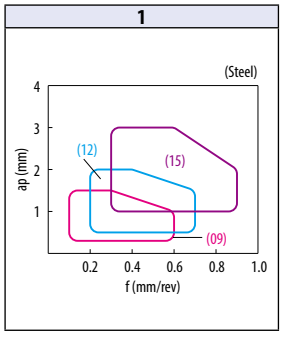




Free-cutting steel		P
Carbon steel / Alloy steel	○ ● ✖ ● ●	P
Stainless steel		M
Gray cast iron	● ● ●	K
Nodular cast iron	○ ● ✖ ○	K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

Insert		Description	Applicable chipbreaker range	Dimension (mm) IC	S	D1	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA515	CA525	CA530	Cermet PVD PV7005	PV720	- TN60	TN620	Applicable toolholder
Medium - Roughing		RNMG 090300	1	9.525	3.18	3.81	●	●	●				○	○			●	●	●	D42
		RNMG 120400	1	12.7	4.76	5.16	●	●	●	●	●	●	○	○	●	●	●	●	●	D42
		RNMG 150600	1	15.875	6.35	6.35	●	●	●	●	●	●		○						-

Applicable chipbreaker range



● : Standard item ○ : Will be replaced with a new product

90° Square

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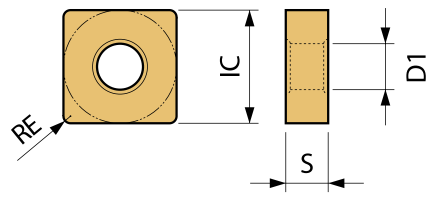
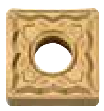
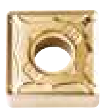
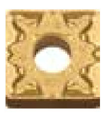
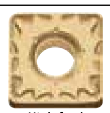
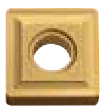
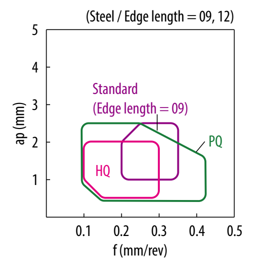
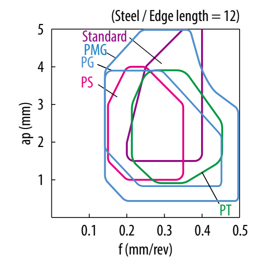


Work material	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1535	CCX	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel																							P
Carbon steel / Alloy steel	◌	○	◐						●			✖				●	●	◐	◌		●	◐	P
Stainless steel													●	◐	◐								M
Gray cast iron				●	◐	✕										●							K
Nodular cast iron				○	◐	✖										○							K
Non-ferrous metals																							N
Heat-resistant alloy													○	◌	◐								S
Titanium alloy															◐								S
Hard materials																							H

Carbide: CVD (CA025P–CA6525), PVD (PR1535). Cermet: CVD (CCX), PVD (PV710, PV720, PV730), - (TN60, TN610, TN620).

Application	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1535	CCX	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		SNMG	120404PQ	1	8	12.7	4.76	5.16	0.4	●	●	●						●	○	○					●	●	●	●		●	●	D19~D21 F142
			120408PQ						0.8	●	●	●						●	○	○	●				●	●	●	●		●	●	
			120412PQ						1.2	●	●	●							○	○	●											
Finishing - Medium		SNMG	120404HQ	1	8	12.7	4.76	5.16	0.4	●	●	●							○	○	●				●	●	●	●	●	●	●	
			120408HQ						0.8	●	●	●						●	○	○	●	●	●	●	●	●	●	●	●	●	●	
			120412HQ						1.2	●	●	●							○	○					●	●	●	●	●	●	●	
Medium - Roughing		SNMG	120408PMG	2	8	12.7	4.76	5.16	0.8		●	●																				
			120412PMG						1.2		●	●																				
			120416PMG						1.6		●	●																				
Medium - Roughing		SNMG	120408PG	2	8	12.7	4.76	5.16	0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			120412PG						1.2	●	●	●						●	○	○	●			●			●	●			●	
			120416PG						1.6	●	●	●															●	●			●	
Medium - Roughing		SNMG	120408PS	2	8	12.7	4.76	5.16	0.8	●								●	○	○	●	●	●									
			120412PS						1.2	●								●	○	○	●		●									
			120416PS						1.6	●									○	○	●											
Medium - Roughing	 High feed	SNMG	120408PT	2	8	12.7	4.76	5.16	0.8	●								●	○	○	●		●									
			120412PT						1.2	●									○	○	●		●									
Roughing		SNMG	090304	1	8	9.525	3.18	3.81	0.4	●	●	●								○						●	●	●	●	●	●	D20 D21
			090308						0.8	●	●	●	●	●	●		●			○						●	●	●	●	●	●	
		SNMG	120404	2	8	12.7	4.76	5.16	0.4				●	●	●		●									●	●	●	●	●	●	D19~D21 F142
			120408						0.8	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	
			120412						1.2	●	●	●	●	●	●	●	●	●	○	○	●			●			●		●		●	
			120416						1.6	●	●	●	●	●	●		●			○	●						●		●		●	
			120420						2				●	●	●		●										●		●		●	

Applicable chipbreaker range

1	2
	

● : Standard item ○ : Will be replaced with a new product

90° Square

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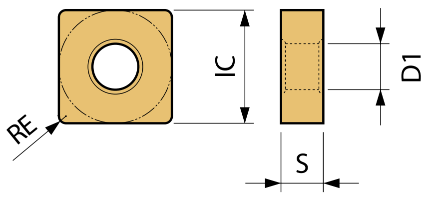
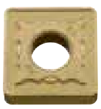
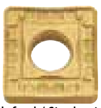
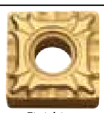
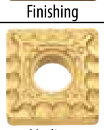
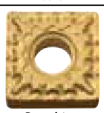
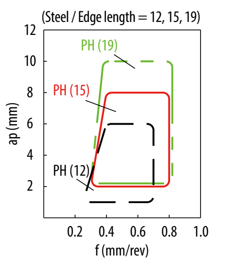


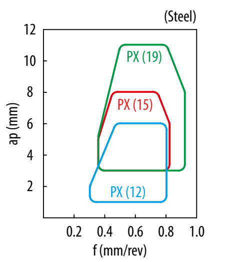
Work material		CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CCX	PV710	PV720	PV730	TN610	TN620
P	Free-cutting steel																		
P	Carbon steel / Alloy steel	◌	○	◐						●			✖	●	●	◐	◌	●	◐
M	Stainless steel																		
K	Gray cast iron				●	◐	✧												
K	Nodular cast iron				○	◐	✖												
N	Non-ferrous metals																		
S	Heat-resistant alloy																		
S	Titanium alloy																		
H	Hard materials																		

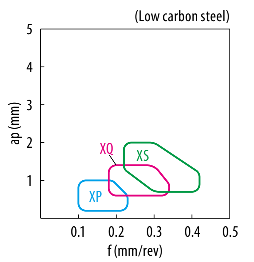
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN610	TN620	Applicable toolholder
Roughing		SNMG	120408PH	1	8	12.7	4.76	5.16	0.8	●	●	●	●	●	●		●		○	○	●							D19~D21 F142
			120412PH						1.2	●	●	●	●	●	●		●	●	○	○	●							
			120416PH						1.6	●	●	●	●	●	●	●			○	○	●							
		SNMG	150612PH	1	8	15.875	6.35	6.35	1.2	●	●	●	●	●	●		●		○	○	●							-
			150616PH						1.6	●	●	●	●	●	●				○		●							
		SNMG	190612PH	1	8	19.05	6.35	7.94	1.2	●	●	●								○	●							
			190616PH						1.6	●	●	●								○	●							
Roughing	 High feed / Single-sided	SNMM	120408PX	2	4	12.7	4.76	5.16	0.8	●	●	●							○	○	●							D19~D21 F142
			120412PX						1.2	●	●	●							○	○	●							
			120416PX						1.6	●	●	●																
		SNMM	150612PX	2	4	15.875	6.35	6.35	1.2	●	●	●								○	●							-
			150616PX						1.6	●	●	●																
		SNMM	190612PX	2	4	19.05	6.35	7.94	1.2	●	●	●								○	●							
			190616PX						1.6	●	●	●							○	○	●							
			190624PX						2.4	●	●	●								○	●							
Low carbon steel	 Finishing	SNMG	120408XP	3	8	12.7	4.76	5.16	0.8	●	●	●							○	○		●	●	●	●	●	●	D19~D21 F142
Low carbon steel	 Medium	SNMG	120408XQ	3	8	12.7	4.76	5.16	0.8	●	●	●							○	○		●	●	●	●	●	●	
Low carbon steel	 Roughing	SNMG	120408XS	3	8	12.7	4.76	5.16	0.8	●	●	●							○	○	●	●	●	●	●	●	●	

Applicable chipbreaker range

1	2	3







● : Standard item ○ : Will be replaced with a new product

90° Square

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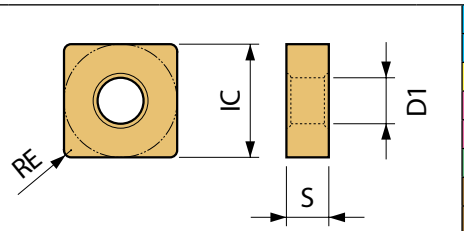
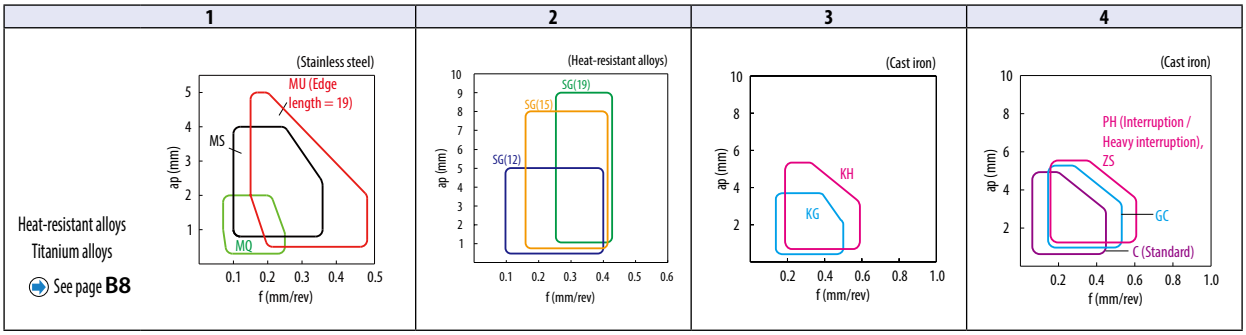


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA4515	CA6515	CA6525	PVD PR005S	PR115S	PR120S	PR1535	- SW05S	Applicable toolholder
Stainless steel / Heat-resistant alloys	 Finishing - Medium	SNMG 120404MQ 120408MQ	1	8	12.7	4.76	5.16	0.4 0.8				●	●	●	●	●	●	●	D19~D21 F142
	 Medium - Roughing	SNMG 120404MS 120408MS 120412MS 120416MS	1	8	12.7	4.76	5.16	0.4 0.8 1.2 1.6				●	●	●	●	●	●	●	D19~D21 F142
	 Medium - Roughing	SNMG 190612MU 190616MU	1	8	19.05	6.35	7.94	1.2 1.6							●	●	●	●		-
Heat-resistant alloys	 Roughing	SNMG 120408SG 120412SG	2	8	12.7	4.76	5.16	0.8 1.2							●	●	●	●	●	D19~D21 F142
		SNMG 150612SG 150616SG	2	8	15.875	6.35	6.35	1.2 1.6							●	●	●	●	●	-
		SNMG 190612SG 190616SG	2	8	19.05	6.35	7.94	1.2 1.6							●	●	●	●	●	
Cast iron	 Roughing	SNMG 120408KG 120412KG	3	8	12.7	4.76	5.16	0.8 1.2	●	●	●									D19~D21 F142
Cast iron	 Roughing	SNMG 120408KH 120412KH 120416KH	3	8	12.7	4.76	5.16	0.8 1.2 1.6	●	●	●									
Cast iron	 Roughing	SNMG 120408C 120412C	4	8	12.7	4.76	5.16	0.8 1.2	●	●	●	●								

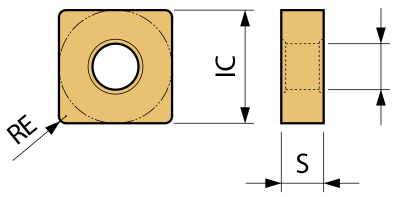
Applicable chipbreaker range



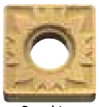
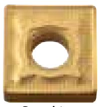
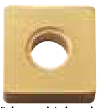
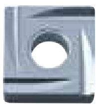
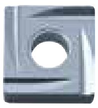
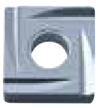
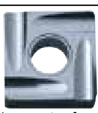
● : Standard item

90° Square

How to read pages of "Turning inserts" ➡ See page B15

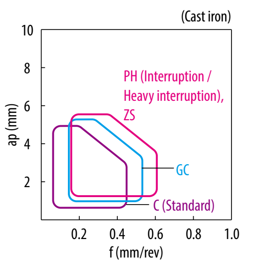


Work material		CA310	CA315	CA320	CA4505	CA4515	KW10	PV7005	PV710	PV720	TN60	TN610	TN620
P	Free-cutting steel												
P	Carbon steel / Alloy steel							●	●	◒		●	◒
M	Stainless steel												
K	Gray cast iron	●	◒	✣			✣	●					
K	Nodular cast iron	○	◒	✖				○					
N	Non-ferrous metals						✖						
S	Heat-resistant alloy												
S	Titanium alloy						✣						
H	Hard materials												

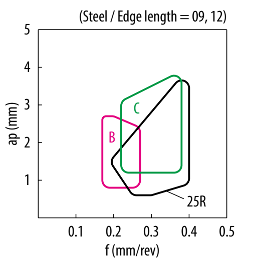
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA4505	CA4515	Carbide - KW10	Cermet PVD PV7005	PV710	PV720	Cermet - TN60	TN610	TN620	Applicable toolholder
Cast iron	 Roughing	SNMG	120408ZS	1	8	12.7	4.76	5.16	0.8	●	●	●	●	●								D19~D21 F142
			120412ZS						1.2	●	●	●		●								
Cast iron	 Roughing	SNMG	120408GC	1	8	12.7	4.76	5.16	0.8	●	●	●		●								
			120412GC						1.2	●	●	●		●								
Cast iron	 Without chipbreaker	SNGA	120404	-	8	12.7	4.76	5.16	0.4						●							
			120408						0.8						●	●						
		SNMA	120404	-	8	12.7	4.76	5.16	0.4	●	●	●		●								
			120408						0.8	●	●	●	●	●								
			120412						1.2	●	●	●	●	●								
			120416						1.6	●	●	●		●								
			120420						2	●	●	●		●								
Finishing - Medium		SNGG	090304R-B	2	8	9.525	3.18	3.81	0.4							●	●	●	●	●	●	D20 D21
			090304L-B						0.4							●	●	●	●	●	●	
			090308R-B						0.8								●	●	●	●	●	
			090308L-B						0.8								●	●	●	●	●	
Medium - Roughing		SNGG	120404R-C	2	8	12.7	4.76	5.16	0.4						●		●	●	●	●	●	D19~D21 F142
			120404L-C						0.4						●		●	●	●	●	●	
			120408R-C						0.8						●	●	●	●	●	●	●	
			120408L-C						0.8						●		●	●	●	●	●	
Medium - Roughing		SNMG	120404R-C	2	8	12.7	4.76	5.16	0.4								●	●	●	●	●	
			120404L-C						0.4								●	●	●	●	●	
			120408R-C						0.8								●	●	●	●	●	
			120408L-C						0.8								●	●	●	●	●	
Medium - Roughing	 Low cutting force	SNGG	120404R-25R	2	8	12.7	4.76	5.16	0.4								●	●	●	●	●	
			120404L-25R						0.4								●	●	●	●	●	
			120408R-25R						0.8								●	●	●	●	●	
			120408L-25R						0.8								●	●	●	●	●	

Applicable chipbreaker range

1



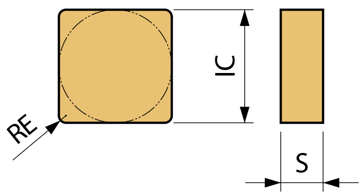
2



● : Standard item

90° Square

How to read pages of "Turning inserts" ➡ See page B15



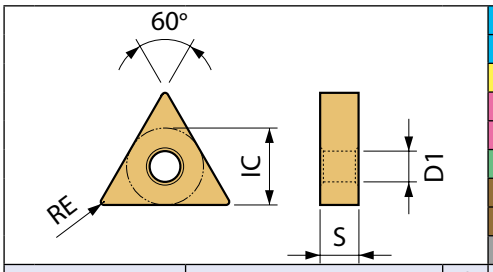
Work material	CA310	CA315	CA320	
Free-cutting steel				P
Carbon steel / Alloy steel				P
Stainless steel				M
Gray cast iron	●	◓	✣	K
Nodular cast iron	○	◓	✣	K
Non-ferrous metals				N
Heat-resistant alloy				S
Titanium alloy				S
Hard materials				H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	RE	Carbide CVD CA310	CA315	CA320	Applicable toolholder
Cast iron	 Without chipbreaker	SNMN	120408 120412	-	8	12.7	4.76	0.8 1.2	● ●	● ●	● ●	D52~D54 D63 D64

●: Standard item

60° Triangle

How to read pages of "Turning inserts" See page B15

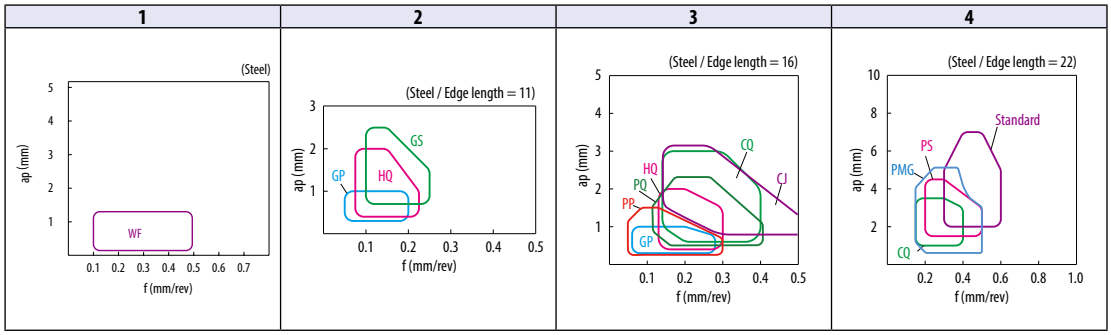


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PVD CVD PR1535	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	TNMX	160404WF	1	6	9.525	4.76	3.81	0.4	●	●	●	●	○	○	●				●	●				●	●	D22~D25
			160408WF						0.8	●	●	●	●	○	○	●				●	●				●	●	F122
			160412WF						1.2	●	●	●	●	○	○	●				●	●				●	●	F143
Finishing		TNMG	160402PP	3	6	9.525	4.76	3.81	0.2	●	●	●	●	○	○	●				●	●	●	●		●	●	D22~D25
			160404PP						0.4	●	●	●	●	○	○	●				●	●	●	●		●	●	D27, D28
			160408PP						0.8	●	●	●	●	○	○	●				●	●	●	●		●	●	F122
			160412PP						1.2	●	●	●		○	○	●				●	●	●	●		●	●	F143 F144
Finishing		TNMG	110404GP	2	6	6.35	4.76	2.26	0.4													●	●	●		●	D24, D25
			110408GP						0.8													●	●	●		●	F144
		TNMG	160402GP	3	6	9.525	4.76	3.81	0.2	●	●	●	●	○	○	●				●	●	●	●	●	●	●	D22~D25
			160404GP						0.4	●	●	●	●	○	○	●				●	●	●	●	●	●	●	D27, D28
			160408GP						0.8	●	●	●	●	○	○	●				●	●	●	●	●	●	●	F122
Finishing - Medium		TNMG	160404PQ	3	6	9.525	4.76	3.81	0.4	●	●	●	●	○	○	●				●	●	●	●		●	●	F143
			160408PQ						0.8	●	●	●	●	○	○	●				●	●	●	●		●	●	F144
			160412PQ						1.2	●	●	●		○	○					●	●	●	●		●	●	
Finishing - Medium		TNMG	110404HQ	2	6	6.35	4.76	2.26	0.4	●	●	●		○	○					●		●	●	●		●	D24, D25
			110408HQ						0.8	●	●	●	●	○	○	●				●		●	●	●		●	F144
		TNMG	160404HQ	3	6	9.525	4.76	3.81	0.4	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	D22~D25
			160408HQ						0.8	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	D27, D28
			160412HQ						1.2	●	●	●	●	○	○	●				●		●	●	●		●	F122
Finishing - Medium	 Up facing	TNMG	160404CQ	3	6	9.525	4.76	3.81	0.4	●	●	●	●	○	○	●				●	●	●	●	●	●	●	F143
			160408CQ						0.8	●	●	●	●	○	○	●				●	●	●	●	●	●	●	F144
			160412CQ						1.2	●	●	●	●	○	○	●						●	●	●		●	
		TNMG	220408CQ	4	6	12.7	4.76	5.16	0.8	●	●	●	●	○	○	●											D24, D25
			220412CQ						1.2	●	●	●		○	○												F143

See "Precautions when using Wiper inserts" in the **R34** and **R35** for WF chipbreaker.

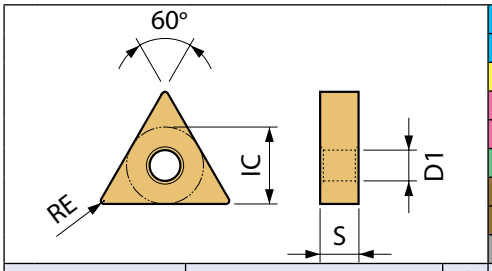
Applicable chipbreaker range



● : Standard item ○ : Will be replaced with a new product

60° Triangle

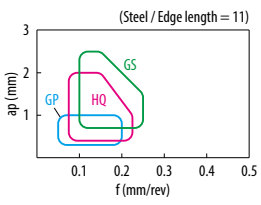
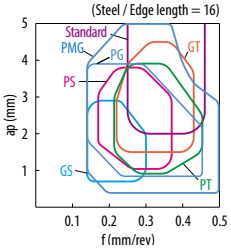
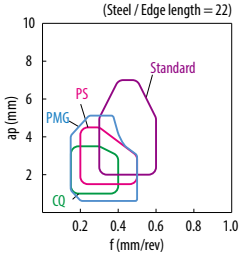
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1535	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Medium - Roughing		TNMG 160404PMG 160408PMG 160412PMG	2	6	9.525	4.76	3.81	0.4 0.8 1.2	●	●															D22~D25 D27, D28 F122,F143 F144
		TNMG 220404PMG 220408PMG 220412PMG 220416PMG	3	6	12.7	4.76	5.16	0.4 0.8 1.2 1.6	●	●															D24, D25 F143
Medium - Roughing		TNMG 110404GS 110408GS	1	6	6.35	4.76	2.26	0.4 0.8	●	●	●		○						●	●	●			●	D24, D25 F144
		TNMG 160404GS 160408GS	2	6	9.525	4.76	3.81	0.4 0.8	●			●	○	○	●				●	●				●	
Medium - Roughing		TNMG 160404PG 160408PG 160412PG	2	6	9.525	4.76	3.81	0.4 0.8 1.2	●	●	●	●	○	○	●			●	●	●	●			●	D22~D25 D27, D28 F122 F143 F144
Medium - Roughing		TNMG 160404PS 160408PS 160412PS	2	6	9.525	4.76	3.81	0.4 0.8 1.2	●			●	○	○	●	●	●		●	●				●	
		TNMG 220404PS 220408PS 220412PS 220416PS	3	6	12.7	4.76	5.16	0.4 0.8 1.2 1.6	●			●	○	○	●	●	●								D24, D25 F143
Medium - Roughing	 High feed	TNMG 160408PT 160412PT	2	6	9.525	4.76	3.81	0.8 1.2	●			●	○	○	●		●								D22~D25 D27, D28 F122 F143 F144
Medium - Roughing	 High feed	TNMG 160408GT 160412GT	2	6	9.525	4.76	3.81	0.8 1.2	●			●	○	○	●										

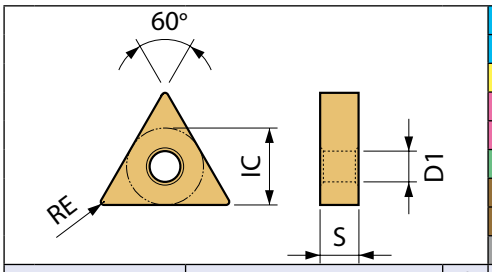
Applicable chipbreaker range

1	2	3
		

● : Standard item ○ : Will be replaced with a new product

60° Triangle

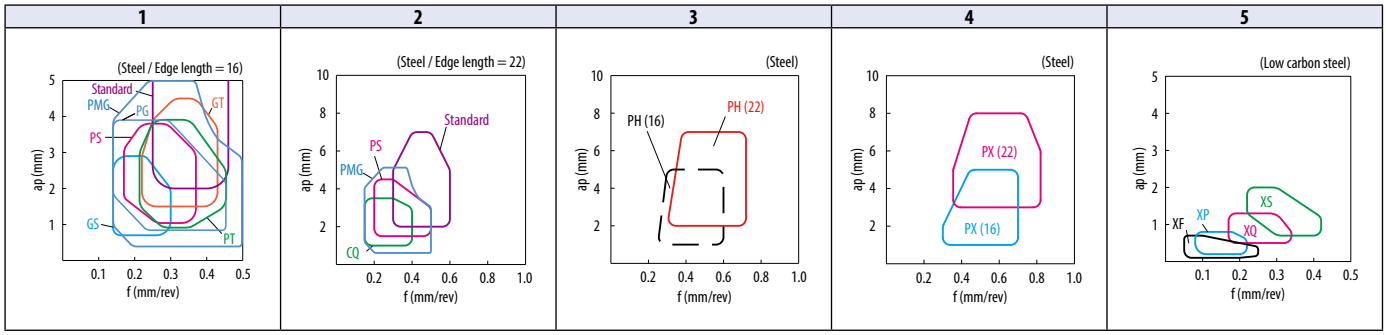
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD CVD PR1535	Cermet CVD CCX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Roughing		TNMG 160404 160408 160412 160416 160420	1	6	9.525	4.76	3.81	0.4 0.8 1.2 1.6 2	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ○ ○	○ ○ ○ ○ ○	○ ○ ● ○ ○	● ● ○ ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	● ● ● ○ ○	D22~D25 D27, D28 F122 F143 F144
		TNMG 220404 220408 220412	2	6	12.7	4.76	5.16	0.4 0.8 1.2	○ ● ●	○ ● ●	○ ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	● ● ●	○ ● ●	○ ○ ○	○ ○ ○	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	● ○ ○	○ ○ ○	● ● ○	○ ○ ○	● ○ ○	D24, D25 F143
Roughing		TNMG 160408PH 160412PH	3	6	9.525	4.76	3.81	0.8 1.2	● ●	● ●	● ●	● ●	● ●	● ●	● ○	● ●	● ●	○ ○	○ ○	● ●	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	D22~D25 D27, D28 F122 F143 F144
		TNMG 220408PH 220412PH 220416PH	3	6	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	D24, D25 F143
Roughing	 High feed / Single-sided	TNMM 160408PX 160412PX	4	3	9.525	4.76	3.81	0.8 1.2	● ●	● ●	● ●	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	D22~D25 D27, D28 F122 F143 F144
		TNMM 220408PX 220412PX 220416PX	4	3	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ●	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○	D24, D25 F143
Low carbon steel	 Finishing / Minute ap	TNMG 160404XF 160408XF	5	6	9.525	4.76	3.81	0.4 0.8	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○	● ●	○ ○	● ●	● ●	● ●	○ ○	● ●	○ ○	D22~D25 D27, D28 F122 F143 F144

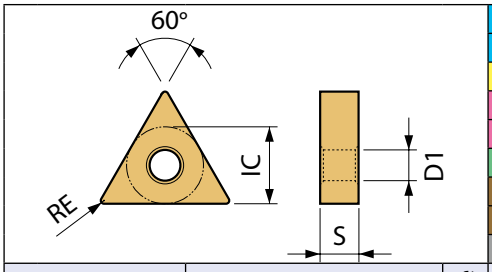
Applicable chipbreaker range

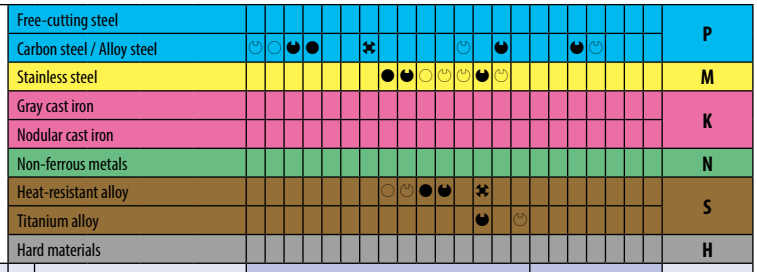


● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" See page B15



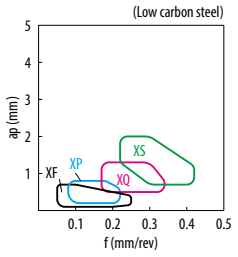


Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR115S	PR120S	PR1225	PR1535	PR1725	Carbide - SW05	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Low carbon steel	 Finishing	TNMG	160404XP 160408XP	1	6	9.525	4.76	3.81	0.4 0.8	● ●	●	●	○	○											●	●	●	●	●	●	
Low carbon steel	 Medium	TNMG	160404XQ 160408XQ	1	6	9.525	4.76	3.81	0.4 0.8	● ●	●	●	○	○	●										●	●	●	●	●	●	D22~D25 D27, D28 F122 F143 F144
Low carbon steel	 Roughing	TNMG	160408XS	1	6	9.525	4.76	3.81	0.8	●	●	●	○	○	●											●	●	●		●	
Finishing - Medium	 Polished / Sharp edge	TNGG	160401MFP-SK 160402MFP-SK 160404MFP-SK	2	6	9.525	4.76	3.81	< 0.1 < 0.2 < 0.4										●	●	●	●	●				●				
Finishing - Medium		TNGG	160402M-SK 160404M-SK	2	6	9.525	4.76	3.81	< 0.2 < 0.4																	●	●				D22~D25 D27, D28 E64 F122 F143 F144
Large ap		TNMG	160402R-LD 160404R-LD	3	6	9.525	4.76	3.81	0.2 0.4													●	●								
Medium - Roughing	 Polished / Sharp edge	TNGG	160404FP-TK 160408FP-TK	2	6	9.525	4.76	3.81	0.4 0.8												●	●	●								
Stainless steel / Heat-resistant alloys	 Medium - Roughing / Sharp edge	TNGG	160404TK 160408TK	4	6	9.525	4.76	3.81	0.4 0.8															●							
Stainless steel / Heat-resistant alloys		TNMG	160404TK 160408TK	4	6	9.525	4.76	3.81	0.4 0.8								●	●				●									D22~D25 D27, D28 F122 F143 F144

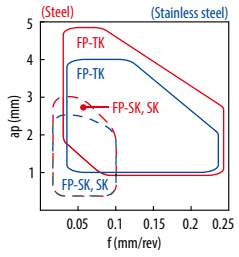
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

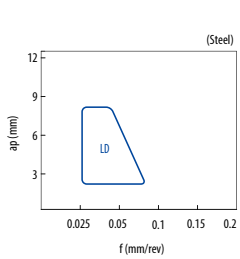
1



2

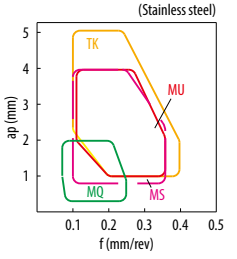


3



4

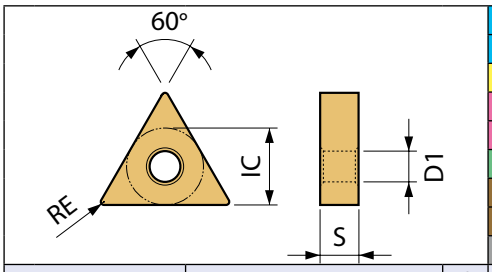
Heat-resistant alloys
Titanium alloys
See page B8



● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" See page B15

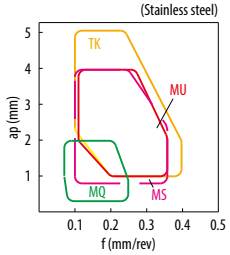


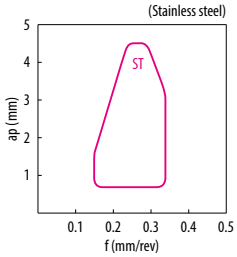
	P	M	K	N	S	H
Free-cutting steel	○					
Carbon steel / Alloy steel	○ ● ● ● ✖ ● ●					
Stainless steel		● ● ○ ○ ●				
Gray cast iron			● ● ●			
Nodular cast iron			○ ● ✖			
Non-ferrous metals				● ●		
Heat-resistant alloy					○ ○ ● ○ ● ✖	
Titanium alloy					● ○	
Hard materials						● ●

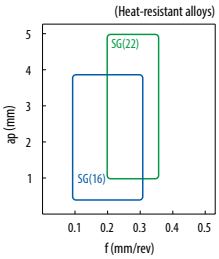
	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide: CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide: PVD PR005S	PR1155	PR1205	PR1535	Carbide: - SW05	Cermet: PVD PV710	PV720	Cermet: - TN60	TN610	TN620	Applicable toolholder
Stainless steel / Heat-resistant alloys	Finishing - Medium	TNMG 160404MQ 160408MQ	1	6	9.525	4.76	3.81	0.4 0.8											●● ●●	●● ●●	●● ●●	●● ●●	●● ●●	● ●							
	Medium - Roughing	TNMG 160404MS 160408MS 160412MS	1	6	9.525	4.76	3.81	0.4 0.8 1.2											●● ●● ●●	●● ●● ●●	●● ●● ●●	●● ●● ●●	●● ●● ●	● ●							D22~D25 D27, D28 F122 F143 F144
	Medium - Roughing	TNMG 160404MU 160408MU	1	6	9.525	4.76	3.81	0.4 0.8											●● ●●	●● ●●	●● ●●	●● ●●	●● ●●	● ●							
Stainless steel	Medium - Roughing	TNMG 160404R-ST 160404L-ST 160408R-ST 160408L-ST	2	6	9.525	4.76	3.81	0.4 0.4 0.8 0.8	●●● ●●●						○○ ○○	○○ ○○	●● ●●	●● ●●	●● ●●	●● ●●				●		●●● ●●●	●●● ●●●	●● ●●	●● ●●	●● ●●	D22~D25 D27, D28 F122 F143 F144
Heat-resistant alloys	Roughing	TNMG 160408SG 160412SG	3	6	9.525	4.76	3.81	0.8 1.2													●● ●●	●● ●●	●● ●●	●● ●●	● ●						
		TNMG 220408SG 220412SG	3	6	12.7	4.76	5.16	0.8 1.2													●● ●●	●● ●●	●● ●●	●● ●●	● ●						D24, D25 F143
Cast iron	Sharp cutting oriented	TNMG 160404KQ 160408KQ	4	6	9.525	4.76	3.81	0.4 0.8				●●● ●●●																			
Cast iron	Roughing	TNMG 160404KG 160408KG 160412KG	4	6	9.525	4.76	3.81	0.4 0.8 1.2				●●● ●●● ●●●																			D22~D25 D27, D28 F122 F143 F144
Cast iron	Roughing	TNMG 160408KH 160412KH 160416KH	4	6	9.525	4.76	3.81	0.8 1.2 1.6				●●● ●●● ●●●																			

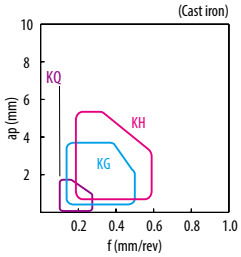
Applicable chipbreaker range

1	2	3	4
Heat-resistant alloys Titanium alloys See page B8	(Stainless steel)	(Stainless steel)	(Heat-resistant alloys)	(Cast iron)





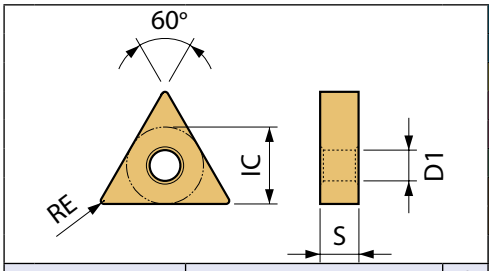




● : Standard item ○ : Will be replaced with a new product

60° Triangle

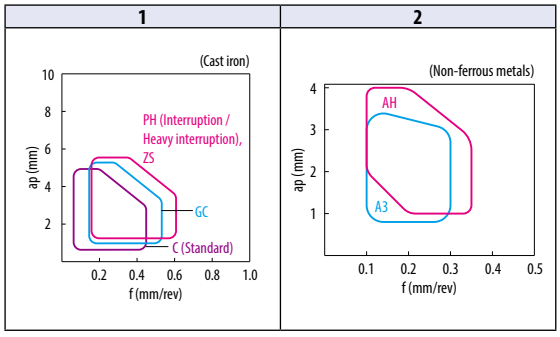
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA4505	CA4515	DLC PDL010	PDL025	- KW10	Cermet CVD CCX	PVD PV7005	PV7020	- TN60	TN620	Applicable toolholder
Cast iron	 Roughing	TNMG	160404C 160408C 160412C	1	6	9.525	4.76	3.81	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	 ● ●	● ● ●									
Cast iron	 Roughing	TNMG	160408ZS 160412ZS	1	6	9.525	4.76	3.81	0.8 1.2	● ●	● ●	● ●	● ●	● ●									D22~D25 D27, D28 F122 F143 F144
Cast iron	 Roughing	TNMG	160408GC 160412GC	1	6	9.525	4.76	3.81	0.8 1.2	● ●	● ●	● ●	● ●	● ●									
Cast iron	 Without chipbreaker	TNGA	110304	-	6	6.35	3.18	2.26	0.4								●						D24 D25
		TNGA	160404 160408	-	6	9.525	4.76	3.81	0.4 0.8								● ●		● ●				
		TNMA	160404 160408 160412 160416 160420	-	6	9.525	4.76	3.81	0.4 0.8 1.2 1.6 2	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●				● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●	● ● ● ● ●		
Non-ferrous metals	 Finishing - Medium / Sharp edge	TNGG	160404R-A3 160404L-A3 160408R-A3 160408L-A3	2	6	9.525	4.76	3.81	0.4 0.4 0.8 0.8						● ● ● ●	● ● ● ●	● ● ● ●						D22~D25 D27, D28 F122 F143 F144
Non-ferrous metals	 Medium - Roughing / Sharp edge	TNGG	160404AH 160408AH	2	6	9.525	4.76	3.81	0.4 0.8						● ●	● ●	● ●						
Non-ferrous metals	 Medium - Roughing	TNMG	160404AH 160408AH	2	6	9.525	4.76	3.81	0.4 0.8						● ●	● ●	● ●						

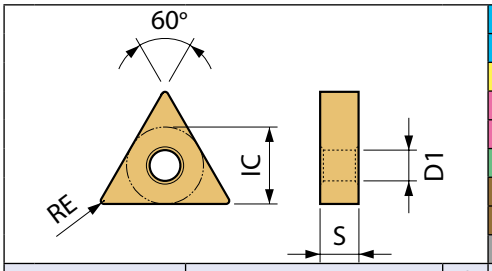
Applicable chipbreaker range



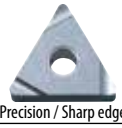
● : Standard item

60° Triangle

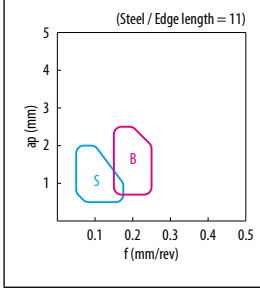
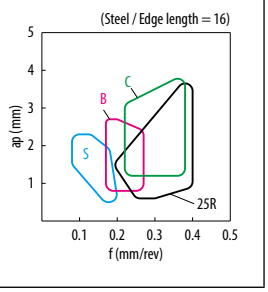
How to read pages of "Turning inserts" See page B15



Free-cutting steel		P
Carbon steel / Alloy steel	● ◔ ◔ ● ● ◔ ● ●	P
Stainless steel	● ◔ ◔	M
Gray cast iron	●	K
Nodular cast iron	○	K
Non-ferrous metals	✖	N
Heat-resistant alloy	●	S
Titanium alloy	●	S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1535	PR1725	PR930	Carbide - KW10	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing	 Precision / Sharp edge	TNEG	160402R-SSF	2	6	9.525	4.76	3.81	0.2			●			●	●	●	●	●	●	D22~D25 D27, D28 F122 F143 F144
			160402L-SSF						0.2			●			●	●	●	●	●	●	
			160404R-SSF						0.4			●			●	●	●	●	●	●	
			160404L-SSF						0.4			●			●	●	●	●	●	●	
Finishing	 Sharp edge / Surface finish oriented	TNGG	110402R-S	1	6	6.35	4.76	2.26	0.2				●					●			D24 D25 F144
			110402L-S						0.2				●					●			
			110404R-S						0.4									●			
			110404L-S						0.4									●			
			110408R-S						0.8									●			
			110408L-S						0.8									●			
		TNGG	160401R-S	2	6	9.525	4.76	3.81	0.1							●	●			●	D22~D25 D27, D28 F122 F143 F144
			160401L-S						0.1							●	●			●	
			160402R-S						0.2	●	●	●		●	●	●	●	●	●	●	
			160402L-S						0.2	●	●	●		●	●	●	●	●	●	●	
			160404R-S						0.4	●	●	●		●	●	●	●	●	●	●	
			160404L-S						0.4	●	●	●		●	●	●	●	●	●	●	
			160408R-S						0.8	●	●	●			●	●	●	●	●		
			160408L-S						0.8	●	●	●			●	●	●	●	●		
Finishing - Medium		TNGG	110302R-B	1	6	6.35	3.18	2.26	0.2				●			●	●		●	●	D24 D25
			110302L-B						0.2				●			●	●		●	●	
			110304R-B						0.4				●			●	●		●	●	
			110304L-B						0.4				●			●	●		●	●	
		TNGG	160304R-B	2	6	9.525	3.18	3.81	0.4									●			-
		TNGG	160402R-B	2	6	9.525	4.76	3.81	0.2			●	●		●	●	●	●	●	●	D22~D25 D27, D28 F122 F143 F144
			160402L-B						0.2			●	●		●	●	●	●	●	●	
			160404R-B						0.4			●		●	●	●	●	●	●	●	
			160404L-B						0.4			●		●	●	●	●	●	●	●	
			160408R-B						0.8						●	●	●	●	●	●	
			160408L-B						0.8						●	●	●	●	●	●	

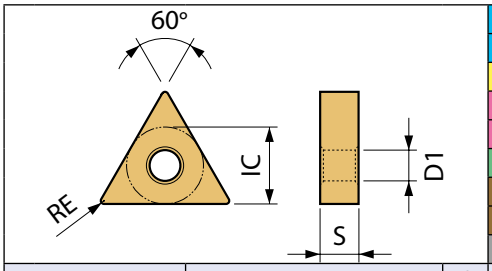
Applicable chipbreaker range

1	2
	

● : Standard item

60° Triangle

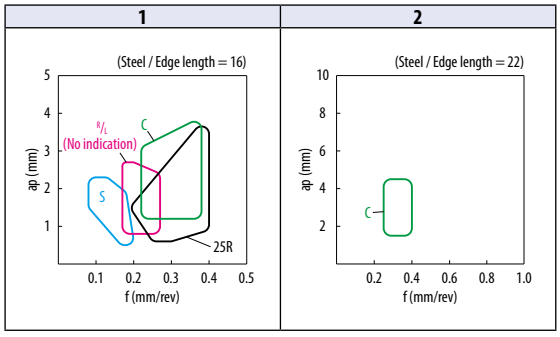
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1535	Carbide PVD PR930	Carbide - KW10	Cermet PVD PV7005	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
Medium - Roughing		TNGG	160402R-C	1	6	9.525	4.76	3.81	0.2						●	●			●	D22~D25 D27, D28 F122 F143 F144
			160402L-C						0.2						●	●			●	
			160404R-C						0.4		●	●	●	●	●	●	●	●	●	
			160404L-C						0.4		●	●	●	●	●	●	●	●	●	
			160408R-C						0.8		●	●	●	●	●	●	●	●	●	
			160408L-C						0.8		●	●	●	●	●	●	●	●	●	
			160412R-C						1.2				●	●	●	●	●	●	●	
			160412L-C						1.2				●	●	●	●	●	●	●	
		TNGG	220404R-C	2	6	12.7	4.76	5.16	0.4						●		●		●	D24 D25 F143
			220404L-C						0.4						●		●		●	
			220408R-C						0.8						●		●		●	
			220408L-C						0.8						●		●		●	
		TNMG	160404R-C	1	6	9.525	4.76	3.81	0.4					●	●	●	●	●	●	D22~D25 D27, D28 F122 F143 F144
			160404L-C						0.4					●	●	●	●	●	●	
			160408R-C						0.8					●	●	●	●	●	●	
			160408L-C						0.8					●	●	●	●	●	●	
			160412R-C						1.2								●			
Medium - Roughing		TNGG	110402R	1	6	6.35	4.76	2.26	0.2								●			D24 D25 F144
			110404R						0.4								●			
			110404L						0.4								●			
			110408R						0.8								●			
Medium - Roughing	 Low cutting force	TNGG	160404R-25R	1	6	9.525	4.76	3.81	0.4	●	●	●		●	●	●	●	●	●	D22~D25 D27, D28 F122 F143 F144
			160404L-25R						0.4	●	●	●		●	●	●	●	●	●	
			160408R-25R						0.8	●	●	●		●	●	●	●	●	●	
			160408L-25R						0.8	●	●	●		●	●	●	●	●	●	

Applicable chipbreaker range



● : Standard item

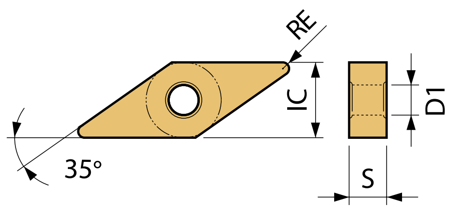
B

Turning indexable inserts

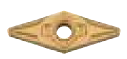
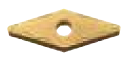
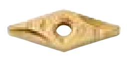
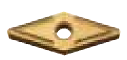
Chip breakers | Negative | C | D | R | S | T | V | W | Ceramic

35° Rhombic

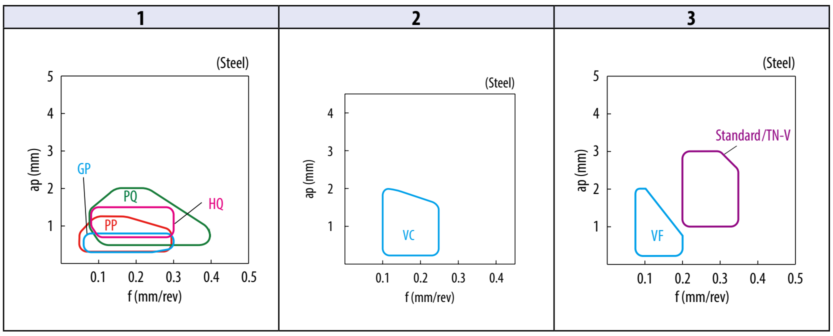
How to read pages of "Turning inserts" ➡ See page B15



Work material	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	CCX	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel																							P
Carbon steel / Alloy steel	◌	○	◕						●			✖			●		●	◕	◌		●	◕	P
Stainless steel													●	◕									M
Gray cast iron				●	◕	✣									●	●							K
Nodular cast iron				○	◕	✖									○	○							K
Non-ferrous metals																							N
Heat-resistant alloy													○	◌									S
Titanium alloy																							S
Hard materials																							H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Cermet CVD CCX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing		VNMG	160402PP	1	4	9.525	4.76	3.81	0.2	●	●	●						●	○	○	●			●		●	●	●		●	●	D30~D39
			160404PP						0.4	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160408PP						0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160412PP						1.2	●	●	●								○				●		●	●	●		●	●	
Finishing		VNMG	160402GP	1	4	9.525	4.76	3.81	0.2	●	●	●							○	○	●					●	●	●	●	●	●	
			160404GP						0.4	●	●	●						●	○	○	●					●	●	●	●	●	●	
			160408GP						0.8	●	●	●						●	○	○	●					●	●	●	●	●	●	
Finishing - Medium		VNMG	160404R-VC	2	4	9.525	4.76	3.81	0.4	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160404L-VC						0.4	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160408R-VC						0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160408L-VC						0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160412R-VC						1.2	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160412L-VC						1.2	●	●	●						●	○	○	●			●		●	●	●		●	●	
Finishing - Medium		VNMG	160404VF	3	4	9.525	4.76	3.81	0.4	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160408VF						0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160412VF						1.2	●	●	●							○	○	●						●	●			●	
Finishing - Medium		VNMG	160404PQ	1	4	9.525	4.76	3.81	0.4	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160408PQ						0.8	●	●	●						●	○	○	●			●		●	●	●		●	●	
			160412PQ						1.2	●	●	●						●	○	○	●			●		●	●	●		●	●	
Finishing - Medium		VNMG	160404HQ	1	4	9.525	4.76	3.81	0.4	●	●	●						●	○	○	●			●		●	●	●	●	●	●	
			160408HQ						0.8	●	●	●						●	○	○	●			●		●	●	●	●	●	●	
			160412HQ						1.2	●	●	●						●	○	○	●			●			●	●			●	
Medium		VNMG	160404TN-V	3	4	9.525	4.76	3.81	0.4																				●			
			160408TN-V						0.8																				●			
			160412TN-V						1.2																				●			
Roughing		VNMG	160404	3	4	9.525	4.76	3.81	0.4	●	●	●	●	●	●	●	●	●	○	○	●	●	●			●	●	●	●	●	●	
			160408						0.8	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	

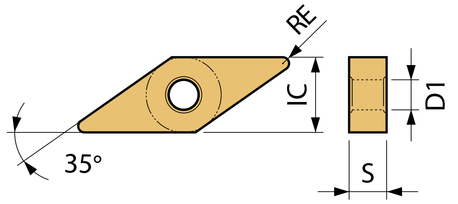
Applicable chipbreaker range



●: Standard item ○: Will be replaced with a new product

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

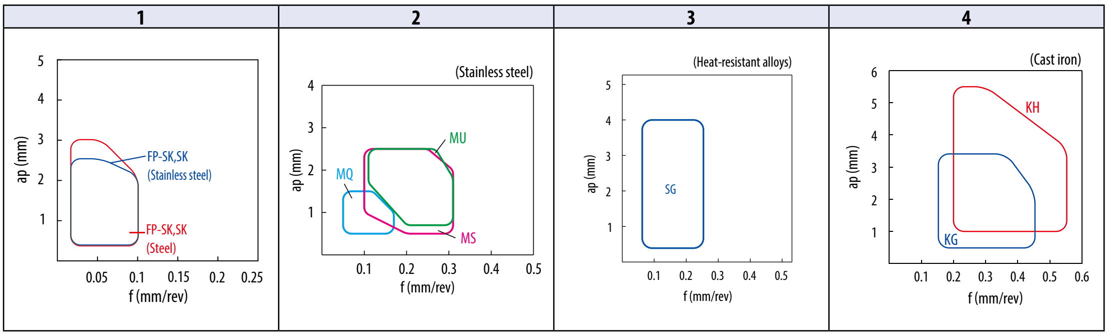


Work material	CA310	CA315	CA320	CA6515	CA6525	PR005S	PR115S	PR1205	PR1225	PR1535	PR1725	SW05	PV710	PV720	PV730	TN610	TN620	
Free-cutting steel																		P
Carbon steel / Alloy steel									◌		◕		●	◕	◌	●	◕	P
Stainless steel				●	◕		○	◌	◌	◕	◌							M
Gray cast iron	●	◕	✣															K
Nodular cast iron	○	◕	✖															K
Non-ferrous metals																		N
Heat-resistant alloy				○	◌	●	○	◕		✖								S
Titanium alloy										◕		◌						S
Hard materials																		H

Application	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA6515	CA6525	Carbide PVD PR005S	PR115S	PR1205	PR1225	PR1535	PR1725	Carbide - SW05	Cermet PVD PV710	PV720	PV730	Cermet - TN610	TN620	Applicable toolholder
Finishing - Medium	Polished / Sharp edge	VNGG	160402MFP-SK	1	4	9.525	4.76	3.81	< 0.2							●	●	●	●	●				●			D30~D39
			160404MFP-SK						< 0.4							●	●	●	●	●				●			
Finishing - Medium		VNGG	160402M-SK	1	4	9.525	4.76	3.81	< 0.2													●	●	●	●	●	
			160404M-SK						< 0.4													●	●	●	●	●	
Stainless steel / Heat-resistant alloys	Finishing - Medium	VNMG	160404MQ	2	4	9.525	4.76	3.81	0.4				●	●	●	●	●		●		●						
			160408MQ						0.8				●	●	●	●	●		●		●						
Stainless steel / Heat-resistant alloys	Medium - Roughing	VNMG	160404MS	2	4	9.525	4.76	3.81	0.4				●	●	●	●	●		●		●						
			160408MS						0.8				●	●	●	●	●		●		●						
			160412MS						1.2				●	●	●	●	●		●								
Stainless steel / Heat-resistant alloys	Medium - Roughing	VNMG	160404MU	2	4	9.525	4.76	3.81	0.4				●	●	●	●	●		●		●						
			160408MU						0.8				●	●	●	●	●		●		●						
Heat-resistant alloys	Roughing	VNMG	160404SG	3	4	9.525	4.76	3.81	0.4						●	●	●		●		●						
			160408SG						0.8						●	●	●		●		●						
Cast iron	Roughing	VNMG	160408KG	4	4	9.525	4.76	3.81	0.8	●	●	●															
			160412KG						1.2	●	●	●															
Cast iron	Roughing	VNMG	160408KH	4	4	9.525	4.76	3.81	0.8	●	●	●															
			160412KH						1.2	●	●	●															

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

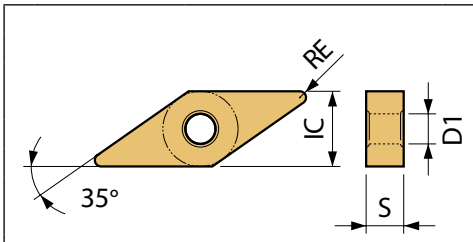
Applicable chipbreaker range



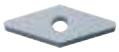
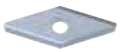
● : Standard item

35° Rhombic

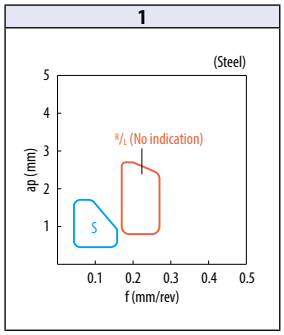
How to read pages of "Turning inserts" See page B15



Free-cutting steel													P
Carbon steel / Alloy steel		○			●	◕	○		●	◕			P
Stainless steel	◕	○											M
Gray cast iron			❄	●									K
Nodular cast iron				○									K
Non-ferrous metals			✖										N
Heat-resistant alloy	◕												S
Titanium alloy	◕		❄										S
Hard materials													H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1535	Carbide PVD PR930	Carbide - KW10	Cermet PVD PV7005	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
Cast iron	 Without chipbreaker	VNGA	160404	-	4	9.525	4.76	3.81	0.4			●	●							
			160408						0.8			●	●							
Finishing	 Sharp edge / Surface finish oriented	VNGG	160402R-S	1	4	9.525	4.76	3.81	0.2	●					●	●			●	D30~D39
			160402L-S						0.2	●					●	●			●	
			160404R-S						0.4	●					●	●			●	
			160404L-S						0.4	●					●	●			●	
Medium		VNGG	160402R	1	4	9.525	4.76	3.81	0.2		●			●	●	●	●	●	●	
			160402L						0.2		●			●	●	●	●	●	●	
			160404R						0.4		●	●		●	●	●	●	●	●	
			160404L						0.4		●	●		●	●	●	●	●	●	
			160408R						0.8		●	●		●	●	●	●	●	●	
			160408L						0.8			●		●	●	●	●	●	●	

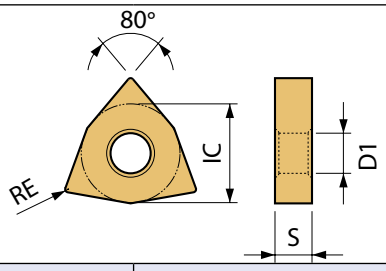
Applicable chipbreaker range



● : Standard item

80° Trigon

How to read pages of "Turning inserts" See page B15

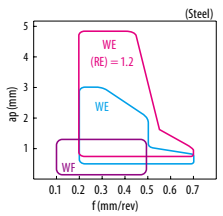
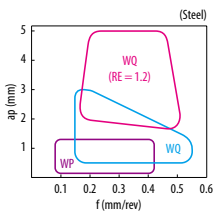
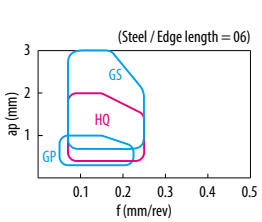
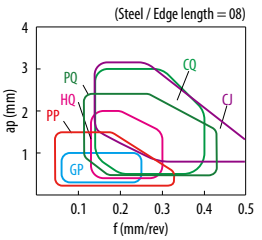


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	Cermet CVD COX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	WNMG 080404WF 080408WF	1	6	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●	● ●	○ ○	○ ○	● ●		● ●	● ●			● ●	● ●	
Finishing	 With Wiper Edge	WNMG 080404WP 080408WP	2	6	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●	● ●	○ ○	○ ●			● ●	● ●			● ●	● ●	
Finishing - Medium	 With Wiper Edge	WNMG 080404WE 080408WE 080412WE	1	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	● ● ●		● ● ●	● ● ●			● ● ●	● ● ●	D43~D46 F146 F148 F149
Finishing - Medium	 With Wiper Edge	WNMG 080404WQ 080408WQ 080412WQ	2	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●		○ ○ ○	○ ○ ○	● ● ●		● ● ●	● ● ●			● ● ●	● ● ●	
Finishing		WNMG 080402PP 080404PP 080408PP 080412PP	4	6	12.7	4.76	5.16	0.2 0.4 0.8 1.2	● ● ● ●	● ● ● ●	● ● ● ●		○ ○ ○ ○	○ ○ ○ ○	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	
Finishing		WNMG 060404GP 060408GP	3	6	9.525	4.76	3.81	0.4 0.8										● ●	● ●	●		● ●	D45 F146
Finishing		WNMG 080404GP 080408GP	4	6	12.7	4.76	5.16	0.4 0.8									● ●	● ●	● ●	● ●		● ●	D43~D46 F146 F148 F149
Finishing - Medium		WNMG 080404PQ 080408PQ 080412PQ	4	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●		● ● ●	● ● ●	

See "Precautions when using Wiper inserts" in the **R34** and **R35** for WF / WE chipbreakers.

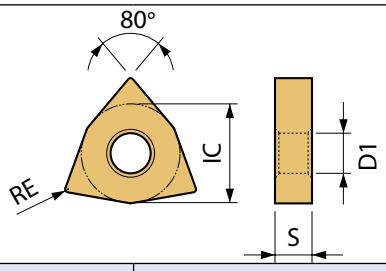
Applicable chipbreaker range

1	2	3	4
			

● : Standard item ○ : Will be replaced with a new product

80° Trigon

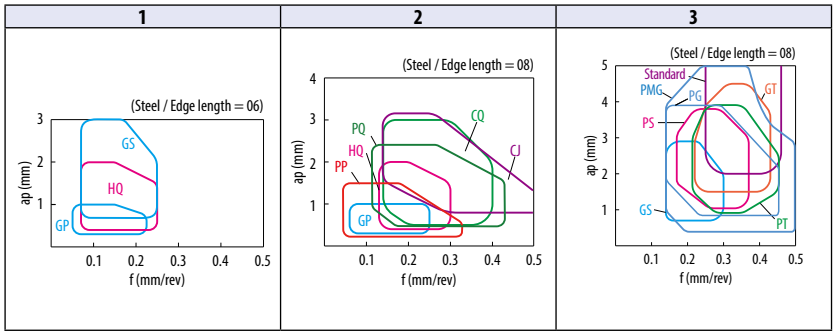
How to read pages of "Turning inserts" See page B15



Free-cutting steel	
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PVD CVD PR1535	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		WNMG 06T304HQ 06T308HQ	1	6	9.525	3.97	3.81	0.4 0.8	● ●	● ●	● ●			○ ○	●					●	●		●		●	-
		WNMG 060404HQ 060408HQ	1	6	9.525	4.76	3.81	0.4 0.8	● ●	● ●	● ●	● ●	○ ○	○ ○	●				● ●	●	●	●	●		●	D45 F146
		WNMG 080404HQ 080408HQ 080412HQ	2	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	● ● ●	● ●	● ●	●	● ● ●	● ●	● ●	● ●	● ●	● ●	● ●	
Finishing - Medium	Up facing	WNMG 080404CQ 080408CQ 080412CQ	2	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	 ● ●					● ●	● ●	● ●		● ●	● ●	D43~D46 F146 F148 F149
Finishing - Medium	Up facing	WNMG 080408CJ 080412CJ	2	6	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●		○ ○	○ ○	● ●											
Medium - Roughing		WNMG 080404PMG 080408PMG 080412PMG 080416PMG	3	6	12.7	4.76	5.16	0.4 0.8 1.2 1.6		● ●	● ●															
Medium - Roughing		WNMG 060404GS 060408GS	1	6	9.525	4.76	3.81	0.4 0.8	● ●	● ●	● ●	○ ●	○ ○	○ ○	● ●					●	●	●	●		●	D45 F146
		WNMG 080404GS 080408GS 080412GS	3	6	12.7	4.76	5.16	0.4 0.8 1.2	● ●			● ●	○ ○ ○	○ ○ ○	 ● ●					● ●	● ●				●	
Medium - Roughing		WNMG 080404PG 080408PG 080412PG 080416PG	3	6	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	○ ○ ○ ○	○ ○ ○ ○	● ● ● ●			● ● ●		● ●	● ●	● ●			● ●	D43~D46 F146 F148 F149
Medium - Roughing		WNMG 080404PS 080408PS 080412PS 080416PS	3	6	12.7	4.76	5.16	0.4 0.8 1.2 1.6	● ● ● ●			● ● ● ●	○ ○ ○ ○	○ ○ ○ ○	● ● ● ●	● ● ●	● ● ●			● ●	● ●				●	

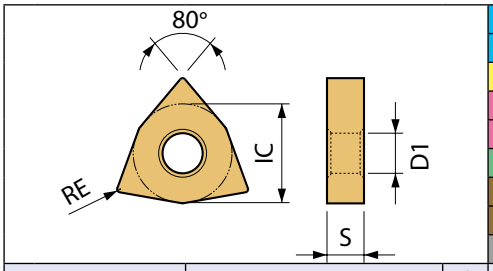
Applicable chipbreaker range

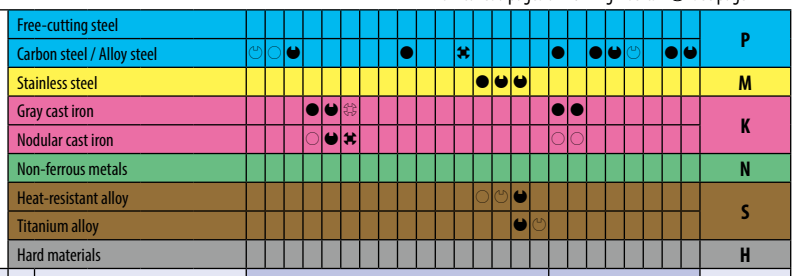


● : Standard item ○ : Will be replaced with a new product

80° Trigon

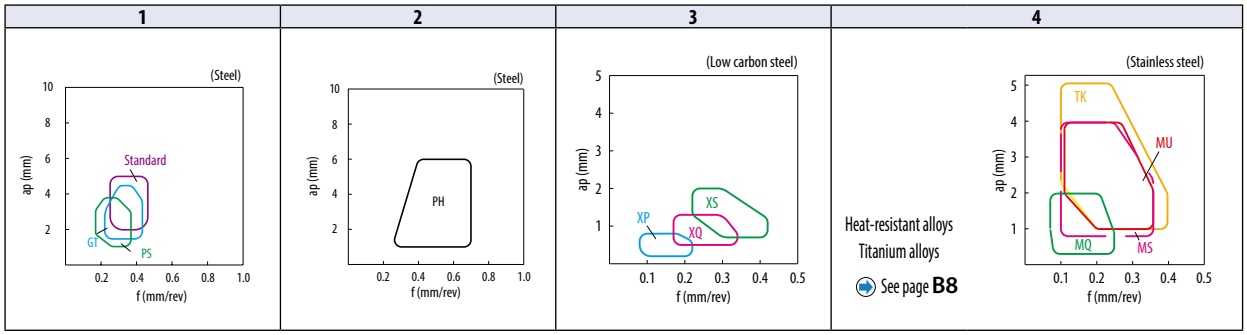
How to read pages of "Turning inserts" See page B15





Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide: CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide: PVD PR1535	Carbide: - SW05	Cermet: CVD CCX	Cermet: PVD PV7005	PV710	PV720	PV730	Cermet: - TN60	TN610	TN620	Applicable toolholder
Medium - Roughing	High feed	WNMG 080408PT 080412PT	B50 3	6	12.7	4.76	5.16	0.8 1.2	● ●								● ●	○ ○	○ ○	● ●	● ●	●												
Medium - Roughing	High feed	WNMG 080408GT 080412GT	1	6	12.7	4.76	5.16	0.8 1.2	● ●								● ●	○ ○	○ ○	● ●													
Roughing		WNMG 080404 080408 080412	1	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○	● ● ●	● ● ●	● ● ●	● ● ●		● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	
Roughing		WNMG 080408PH 080412PH	2	6	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	○ ○	○ ○	● ●													
Low carbon steel	Finishing	WNMG 080404XP 080408XP	3	6	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●						● ●	○ ○	○ ○						● ●		● ●	● ●	● ●		● ●	● ●	D43~D46 F146 F148 F149
Low carbon steel	Medium	WNMG 080404XQ 080408XQ	3	6	12.7	4.76	5.16	0.4 0.8	● ●	● ●	● ●							○ ○	○ ○	● ●					● ●		● ●	● ●	● ●		● ●	● ●	
Low carbon steel	Roughing	WNMG 080408XS	3	6	12.7	4.76	5.16	0.8	●	●	●							○	○	●								●	●			●	
Stainless steel / Heat-resistant alloys	Medium - Roughing / Sharp edge	WNGG 080404TK 080408TK	4	6	12.7	4.76	5.16	0.4 0.8															● ●										
	Medium - Roughing	WNMG 080404TK 080408TK	4	6	12.7	4.76	5.16	0.4 0.8												● ●	● ●	● ●	● ●										

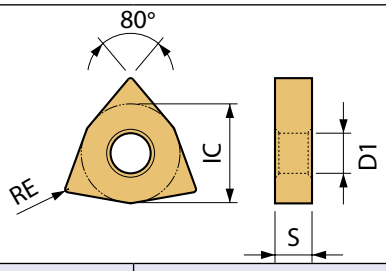
Applicable chipbreaker range



● : Standard item ○ : Will be replaced with a new product

80° Trigon

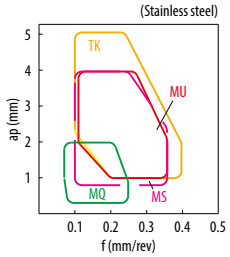
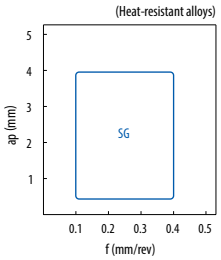
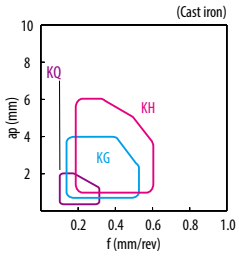
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA6515	CA6525	PVD PR0055	PR1115	PR1120	PR1535	- SW05	Applicable toolholder
Stainless steel / Heat-resistant alloys	 Finishing - Medium	WNMG 080404MQ 080408MQ	1	6	12.7	4.76	5.16	0.4 0.8				● ●	●	● ●	● ●	● ●	● ●	●	D43~D46 F146 F148 F149
	 Medium - Roughing	WNMG 080404MS 080408MS 080412MS	1	6	12.7	4.76	5.16	0.4 0.8 1.2				● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ●		
	 Medium - Roughing	WNMG 080404MU 080408MU	1	6	12.7	4.76	5.16	0.4 0.8				● ●	● ●	● ●	● ●	● ●	● ●		
Heat-resistant alloys	 Roughing	WNMG 080408SG 080412SG	2	6	12.7	4.76	5.16	0.8 1.2						● ●	● ●	● ●	● ●	●	
Cast iron	 Sharp cutting oriented	WNMG 080404KQ 080408KQ 080412KQ	3	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●								
Cast iron	 Roughing	WNMG 080404KG 080408KG 080412KG	3	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●								
Cast iron	 Roughing	WNMG 080408KH 080412KH 080416KH	3	6	12.7	4.76	5.16	0.8 1.2 1.6	● ● ●	● ● ●	● ● ●								

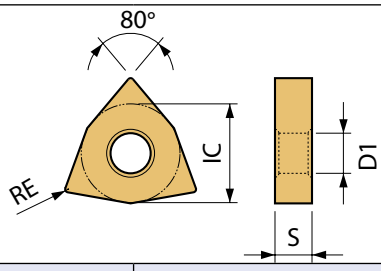
Applicable chipbreaker range

1	2	3
Heat-resistant alloys Titanium alloys See page B8	 (Stainless steel) TK MU MQ MS ap (mm) f (mm/rev)	 (Heat-resistant alloys) SG ap (mm) f (mm/rev)	 (Cast iron) KQ KH KG ap (mm) f (mm/rev)

● : Standard item

80° Trigon

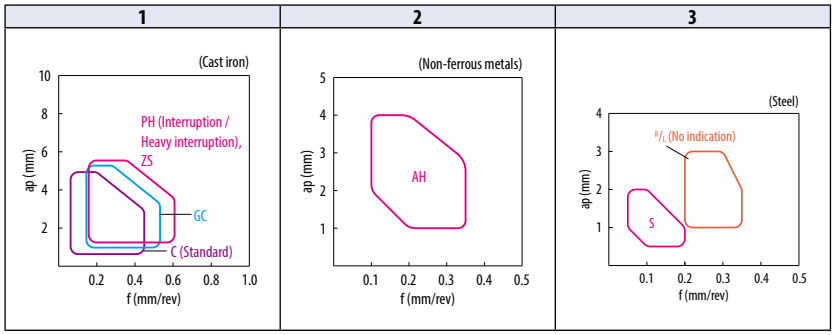
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide CVD CA310	CA315	CA320	CA4505	CA4515	DLC PDL010	PDL025	- KW10	Cermet CVD CCX	- TN60	Applicable toolholder
Cast iron	Roughing	WNMG	080404C 080408C 080412C	1	6	12.7	4.76	5.16	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	● ● ●	● ●						D43~D46 F146 F148 F149
Cast iron	Roughing	WNMG	080408ZS 080412ZS	1	6	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●						
Cast iron	Roughing	WNMG	080408GC 080412GC	1	6	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●	● ●	● ●						
Cast iron	Without chipbreaker	WNMA	080408 080412	-	6	12.7	4.76	5.16	0.8 1.2	● ●	● ●	● ●		● ●				●		
Non-ferrous metals	Medium - Roughing / Sharp edge	WNGG	080404AH 080408AH	2	6	12.7	4.76	5.16	0.4 0.8						● ●	● ●	● ●			
Finishing	Sharp edge / Surface finish oriented	WNGG	060402R-S 060402L-S 060404R-S 060404L-S 060408R-S	3	6	9.525	4.76	3.81	0.2 0.2 0.4 0.4 0.8								● ● ● ● 		● ● ● ● ●	D45 F146
Medium		WNGG	060404R 060404L	3	6	9.525	4.76	3.81	0.4								● ●		● ●	

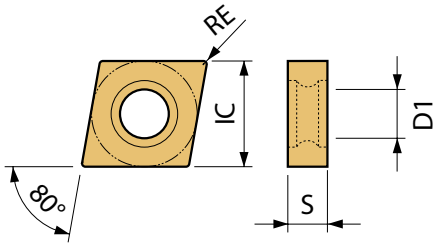
Applicable chipbreaker range



● : Standard item

Small double sided tools

How to read pages of "Turning inserts" See page B15

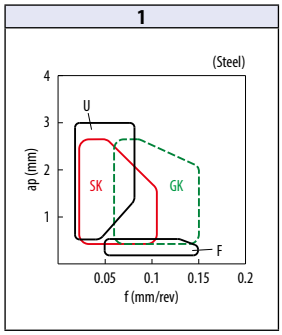


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1225	PR1535	PR1705	PR1725	Applicable toolholder
Finishing - Medium	 Polished / Sharp edge	CNGU 070301MFP-SK 070302MFP-SK	1	4	7.5	3.18	3.6	< 0.1 < 0.2	● ●	● ●		● ●	E60
Medium - Roughing	 With honing	CNMU 070302E-GK 070304E-GK	1	4	7.5	3.18	3.6	0.2 0.4	● ●	● ●		● ●	
Finishing	 Sharp edge	CNGU 0703005MFR-F 070301MFR-F 070302MFR-F 070304MFR-F	1	4	7.5	3.18	3.6	< 0.05 < 0.1 < 0.2 < 0.4	 ● 	 ● ● ●	● ● ● ●	 ● ● ●	
Low feed	 Sharp edge	CNGU 0703005MFR-U 070301MFR-U 070302MFR-U 070304MFR-U	1	4	7.5	3.18	3.6	< 0.05 < 0.1 < 0.2 < 0.4	● ● ● 	 ● ● ●	● ● ● ●	 ● ● ●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

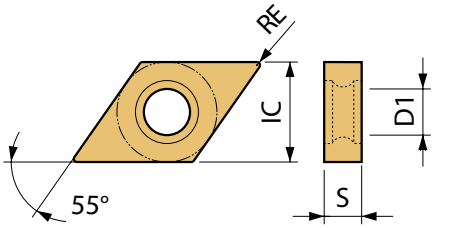
Applicable chipbreaker range



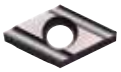
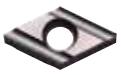
● : Standard item

Small double sided tools

How to read pages of "Turning inserts" See page B15

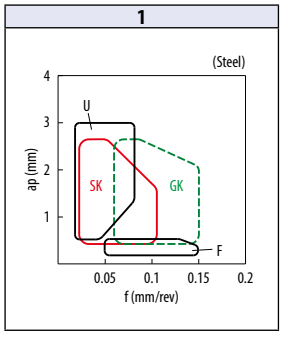


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1225	PR1535	PR1705	PR1725	Applicable toolholder
Finishing - Medium	 Polished / Sharp edge	DNGU 080301MFP-SK 080302MFP-SK 080304MFP-SK	1	4	7	3.18	3.6	< 0.1 < 0.2 < 0.4	● ● ●	● ● ●		● ● ●	E61
Medium - Roughing	 With honing	DNMU 080302E-GK 080304E-GK	1	4	7	3.18	3.6	0.2 0.4	● ●	● ●		● ●	
Finishing	 Sharp edge	DNGU 080301MFR-F 080302MFR-F 080304MFR-F	1	4	7	3.18	3.6	< 0.1 < 0.2 < 0.4	 ● 	● ● ●		● ● ●	
Low feed	 Sharp edge	DNGU 080301MFR-U 080302MFR-U 080304MFR-U	1	4	7	3.18	3.6	< 0.1 < 0.2 < 0.4	 ● ●	● ● ●	● ● ●	● ● ●	
Low feed	 With honing	DNGU 080301MER-U 080302MER-U 080304MER-U	1	4	7	3.18	3.6	< 0.1 < 0.2 < 0.4		● ● ●	● ● ●	● ● ●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

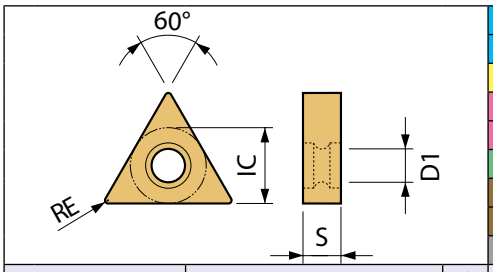
Applicable chipbreaker range



● : Standard item

Small double sided tools

How to read pages of "Turning inserts" See page B15

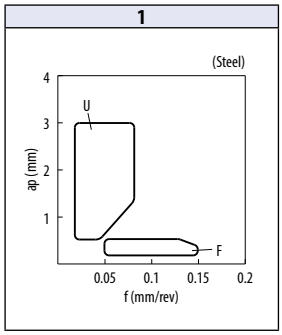


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Carbide PVD PR1225	PR1535	PR1705	PR1725	Applicable toolholder
Finishing	 Sharp edge	TNGU 0903005MFR-F 090301MFR-F 090302MFR-F 090304MFR-F	1	6	5.56	3.18	3	< 0.05 < 0.1 < 0.2 < 0.4	● ● ● ●	 ● ● ●	 ● ● ●	 ● ● ●	E62
Low feed	 Sharp edge	TNGU 090301MFR-U 090302MFR-U 090304MFR-U	1	6	5.56	3.18	3	< 0.1 < 0.2 < 0.4	 ● ●	● ● ●	 ● ●	● ● ●	
Low feed	 With honing	TNGU 090304MER-U	1	6	5.56	3.18	3	< 0.4			●	●	

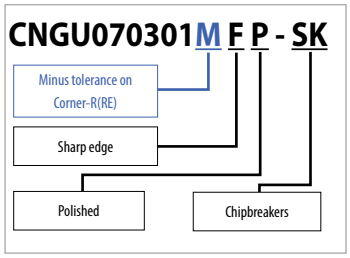
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

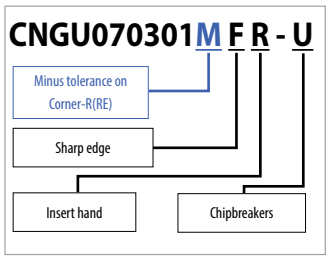
Applicable chipbreaker range

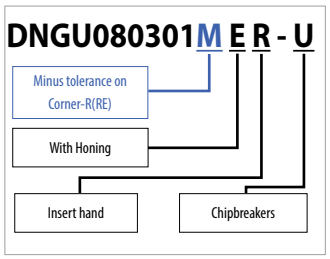


● : Standard item

Small double sided tools identification system







When a minus tolerance is specified for the corner-R(RE)

If a minus tolerance is specified for the corner-R(RE) as shown in the Fig. 1, using an insert with corner-R(RE)=0.2 mm may result in larger radius than specified.
Use an insert the corner of which R(RE) has a minus tolerance.

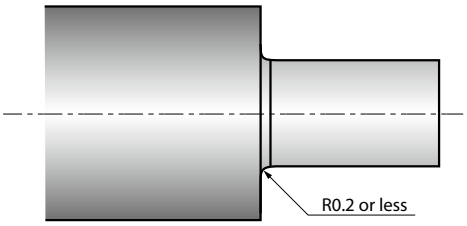
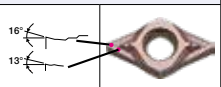
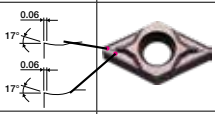
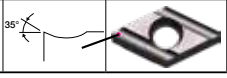


Fig. 1 Example of a specified corner-R in the drawing

Chipbreaker selection (Negative inserts)

Cutting range	Name	Cross-section	Advantages
Finishing - Medium	SK		A low cutting force chipbreaker designed for chip control in steel and stainless steel. Cutting performance is similar to comparable sized positive inserts.
Medium - Roughing	GK		Good chip evacuation at wide range by breaker dot and wide chip pocket.
Finishing	F		Good chip control at finishing with low cutting force.
Low feed	U		Good chip control at low feed rate and varied ap with low cutting force.

80° Rhombic

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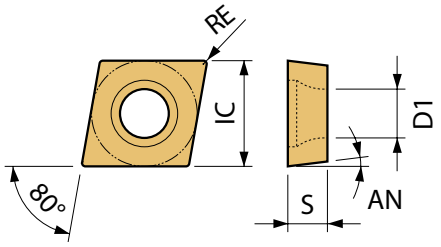
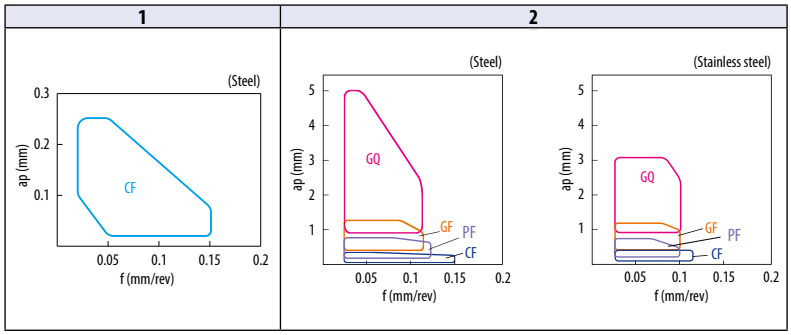


Free-cutting steel						●									P
Carbon steel / Alloy steel					○				●						P
Stainless steel				○	●		○								M
Gray cast iron															K
Nodular cast iron															K
Non-ferrous metals	●	●													N
Heat-resistant alloy					●										S
Titanium alloy					●										S
Hard materials															H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1225	PVD PR1535	PVD PR1705	PVD PR1725	Applicable toolholder
Minute ap	 Polished / Sharp edge	CCGT 030101MP-CF CCGT 030102MP-CF	1	2	3.5	1.4	2	< 0.1 < 0.2	7	● ●	● ●	● ●	● ●	● ●	● ●	F31 F32 F60 F62
Minute ap	Polished / Sharp edge	CCGT 040101MP-CF CCGT 040102MP-CF	1	2	4.3	1.8	2.4	< 0.1 < 0.2	7	● ●	● ●	● ●	● ●	● ●	● ●	
Finishing	 Polished / Sharp edge	CCGT 030101MFP-PF CCGT 030102MFP-PF	2	2	3.5	1.4	2	< 0.1 < 0.2	7			● ●			● ●	
Finishing	Polished / Sharp edge	CCGT 040101MFP-PF CCGT 040102MFP-PF	2	2	4.3	1.8	2.4	< 0.1 < 0.2	7			● ●			● ●	
Finishing	Polished / Sharp edge	CCGT 060201MFP-PF CCGT 060202MFP-PF CCGT 060204MFP-PF	2	2	6.35	2.38	3	< 0.1 < 0.2 < 0.4	7			● ●			● ●	E26 E28 E54 F31 F32 F60~F62 F124
Finishing	 Polished / Sharp edge	CCGT 060201MFP-GF CCGT 060202MFP-GF CCGT 060204MFP-GF	2	2	6.35	2.38	3	< 0.1 < 0.2 < 0.4	7			● ●	● ●	● ●	● ●	
Finishing	Polished / Sharp edge	CCGT 09T301MFP-GF CCGT 09T302MFP-GF CCGT 09T304MFP-GF	2	2	9.525	3.97	4.7	< 0.1 < 0.2 < 0.4	7			● ●	● ●	● ●	● ●	E26~E28 E54 F60~F62 F124

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

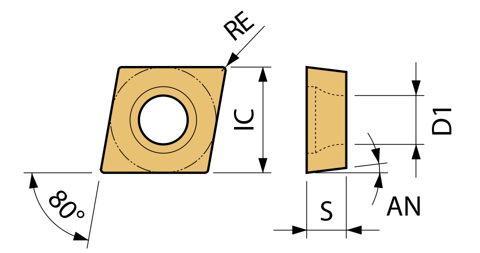
Applicable chipbreaker range



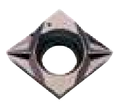
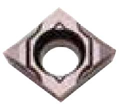
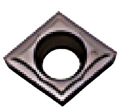
● : Standard item

80° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



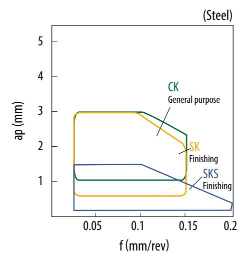
Work material	PDL010	PDL025	PR115S	PR120S	PR1225	PR1535	PR1705	PR1725	PV730	
Free-cutting steel							◕			P
Carbon steel / Alloy steel					◔			◕	◔	P
Stainless steel			○	◔	◔	◕		◔		M
Gray cast iron										K
Nodular cast iron										K
Non-ferrous metals	●	◕								N
Heat-resistant alloy			●	◕		✖				S
Titanium alloy						◕				S
Hard materials										H

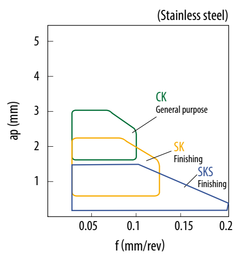
Application	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	PDL025	PVD PR115S	PR120S	PR1225	PR1535	PR1705	PR1725	Cermet PVD PV730	Applicable toolholder
Finishing	 Polished / Sharp Edge	CCGT	0602005MFP-SKS	1	2	6.35	2.38	3	< 0.05	7			●	●		●	●	●	●	E26, E28 E54 F31, F32 F60~F62 F124
			060201MFP-SKS						< 0.1				●	●		●	●	●	●	
			060202MFP-SKS						< 0.2				●	●		●	●	●	●	
		CCGT	09T3005MFP-SKS	1	2	9.525	3.97	4.7	< 0.05	7			●	●		●	●	●	●	E26~E28 E54 F60~F62 F124
			09T301MFP-SKS						< 0.1				●	●		●	●	●	●	
			09T302MFP-SKS						< 0.2				●	●		●	●	●	●	
			09T304MFP-SKS						< 0.4				●	●		●	●	●	●	
Finishing	 Polished / Sharp edge	CCGT	060201MFP-SK	1	2	6.35	2.38	3	< 0.1	7	●	●	●	●	●	●	●	●	●	E26, E28 E54 F31, F32 F60~F62 F124
			060202MFP-SK						< 0.2		●	●	●	●	●	●	●	●	●	
			060204MFP-SK						< 0.4		●	●	●	●	●	●	●	●	●	
		CCGT	09T301MFP-SK	1	2	9.525	3.97	4.7	< 0.1	7	●	●	●	●	●	●	●	●	●	E26~E28 E54 F60~F62 F124
			09T302MFP-SK						< 0.2		●	●	●	●	●	●	●	●	●	
			09T304MFP-SK						< 0.4		●	●	●	●	●	●	●	●	●	
Finishing	 Polished / Sharp edge	CCGT	060201MP-CK	1	2	6.35	2.38	3	< 0.1	7	●	●			●	●		●		E26, E28 E54 F31, F32 F60~F62 F124
			060202MP-CK						< 0.2		●	●			●	●		●		
		CCGT	09T301MP-CK	1	2	9.525	3.97	4.7	< 0.1	7	●	●			●	●		●		E26~E28 E54 F60~F62 F124
			09T302MP-CK						< 0.2		●	●			●	●		●		
Finishing - Medium	 Polished / Sharp edge	CCGT	060201MFP-GQ	2	2	6.35	2.38	3	< 0.1	7			●	●	●	●	●	●		E26, E28 E54 F31, F32 F60~F62 F124
			060202MFP-GQ						< 0.2				●	●	●	●	●	●		
			060204MFP-GQ						< 0.4				●	●	●	●	●	●		
		CCGT	09T301MFP-GQ	2	2	9.525	3.97	4.7	< 0.1	7			●	●	●	●	●	●		E26~E28 E54 F60~F62 F124
			09T302MFP-GQ						< 0.2				●	●	●	●	●	●		
			09T304MFP-GQ						< 0.4				●	●	●	●	●	●		

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

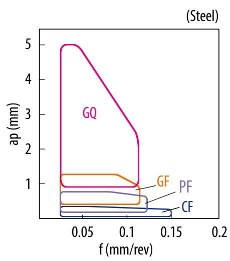
Applicable chipbreaker range

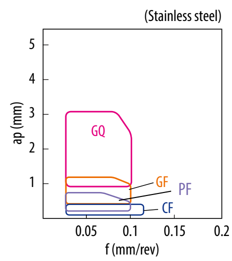
1





2

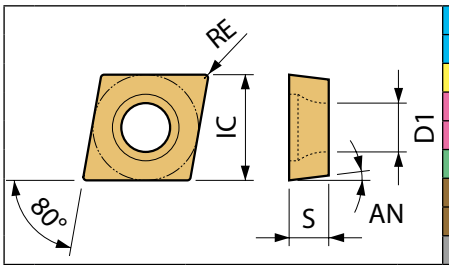


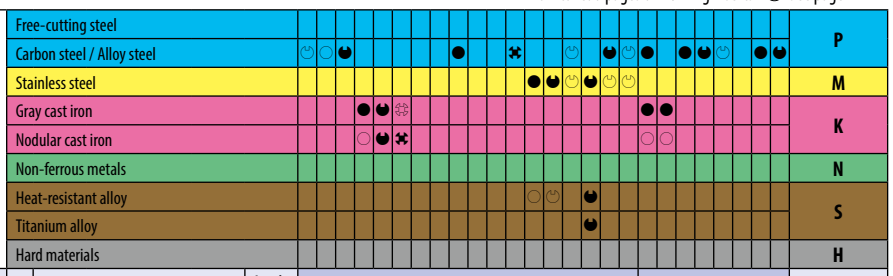


● : Standard item

80° Rhombic

How to read pages of "Turning inserts" See page B15

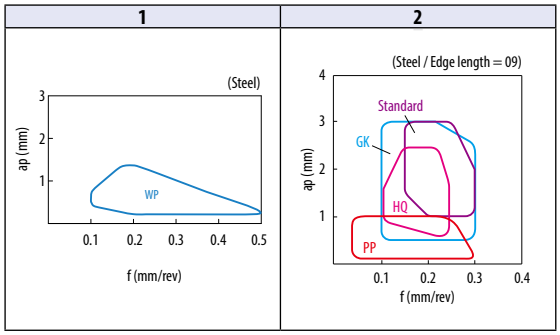




Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1225	PR1535	PR1725	PB930	Cermet CVD CCX	Cermet PVD PV7005	PV7110	PV7120	PV7330	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	CCMT	060202WP	1	2	6.35	2.38	3	0.2	7	●	●	●						●	○	○	●			●		●				●	●			●	●	E26, E28, E54
			060204WP						0.4		●	●	●						●	○	○	●			●		●				●	●			●	●	F31, F32
			060208WP						0.8		●	●	●						●	○	○	●			●		●				●	●			●	●	F60~F62, F124
		CCMT	09T302WP	1	2	9.525	3.97	4.7	0.2	7	●	●	●						●	○	○	●					●				●	●			●	●	E26~E28, E54
			09T304WP						0.4		●	●	●						●	○	○	●			●		●				●	●			●	●	F60~F62
			09T308WP						0.8		●	●	●						●	○	○	●			●		●				●	●			●	●	F124
Finishing		CCMT	060202PP	2	2	6.35	2.38	3	0.2	7	●	●	●						●	○	○				●	●	●		●		●	●	●		●	●	E26, E28, E54
			060204PP						0.4		●	●	●						●	○	○	●			●	●	●		●		●	●	●		●	●	F31, F32
																																				F60~F62, F124
		CCMT	09T302PP	2	2	9.525	3.97	4.7	0.2	7	●	●	●							○	○				●	●	●		●		●	●	●		●	●	E26~E28, E54
			09T304PP						0.4		●	●	●						●	○	○	●			●	●	●		●		●	●	●		●	●	F60~F62
			09T308PP						0.8		●	●	●						●	○	○	●			●	●	●		●		●	●	●		●	●	F124
Finishing - Medium		CCMT	060202GK	2	2	6.35	2.38	2.8	0.2	7	●	●	●						●	○	○	●	●	●		●	●	●	●		●	●	●		●	●	E26, E28, E54
			060204GK						0.4		●	●	●	●	●	●		●	●	○	○	●	●	●		●	●	●	●		●	●	●		●	●	F31, F32
																																				F60~F62, F124
		CCMT	09T302GK	2	2	9.525	3.97	4.4	0.2	7	●	●	●							○	○	●	●	●		●	●	●	●		●	●	●		●	●	E26~E28, E54
			09T304GK						0.4		●	●	●	●	●	●		●	●	○	○	●	●	●		●	●	●	●		●	●	●		●	●	F60~F62
																																				F124
		CCMT	120404GK	2	2	12.7	4.76	5.5	0.4	7	●	●	●	●	●	●		●	●	○	○	●	●	●		●	●	●	●		●	●	●		●	●	E28
			120408GK						0.8		●	●	●	●	●	●		●	●	○	○	●	●	●		●	●	●	●		●	●	●		●	●	
			120412GK						1.2		●	●	●						●	○	○		●			●	●		●			●	●				
Finishing - Medium		CCMT	060202HQ	2	2	6.35	2.38	2.8	0.2	7	●	●	●						●	○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	E26, E28, E54
			060204HQ						0.4		●	●	●						●	○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	F31, F32
																																				F60~F62, F124
		CCMT	09T302HQ	2	2	9.525	3.97	4.4	0.2	7	●	●	●							○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	E26~E28, E54
			09T304HQ						0.4		●	●	●						●	○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	F60~F62
			09T308HQ						0.8		●	●	●						●	○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	F124
Medium		CCGT	060201	2	2	6.35	2.38	2.8	0.1	7																	●				●	●	●	●	●	●	E26, E28, E54
			060202						0.2																		●				●	●	●	●	●	●	F31, F32
			060204						0.4																		●				●	●	●	●	●	●	F60~F62, F124
		CCGT	09T301	2	2	9.525	3.97	4.4	0.1	7																	●				●	●	●	●	●	●	E26~E28, E54
			09T302						0.2																		●				●	●	●	●	●	●	F60~F62
			09T304						0.4																		●				●	●	●	●	●	●	F124
		CCMT	09T308	2	2	9.525	3.97	4.4	0.8	7	●	●	●	●	●	●	●	●	●	○	○	●	●	●		●	●	●	●		●	●	●	●	●	●	

See "Precautions when using Wiper inserts" in the **R36** and **R37** for WP chipbreaker.

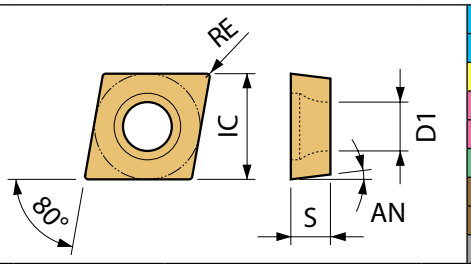
Applicable chipbreaker range



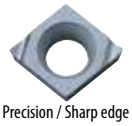
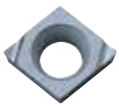
● : Standard item ○ : Will be replaced with a new product

80° Rhombic

How to read pages of "Turning inserts" See page B15

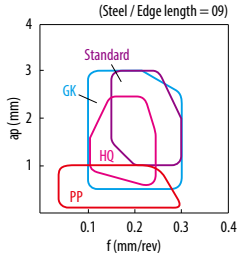
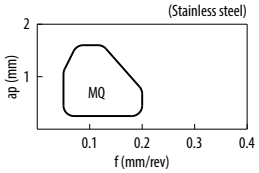
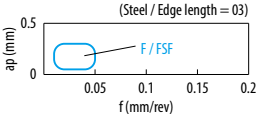
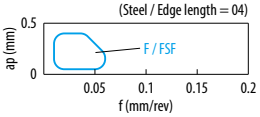


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA6515	CA6525	PVD PR0005	PR1155	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	- SW05	Cermet - TN60	Applicable toolholder
Medium	 Sharp edge	CCGT	0602005MF	1	2	6.35	2.38	2.8	< 0.05	7						●	●		●				E26, E28
			060201MF						< 0.1							●	●		●				E54
			060202MF						< 0.2							●	●	●	●				F31, F32
			060204MF						< 0.4							●	●	●	●				F60~F62, F124
		CCGT	09T3005MF	1	2	9.525	3.97	4.4	< 0.05	7						●	●		●				E26~E28 E54 F60~F62 F124
			09T301MF						< 0.1							●	●	●	●				
			09T302MF						< 0.2							●	●	●	●				
			09T304MF						< 0.4							●	●	●	●				
Stainless steel / Heat-resistant alloys	 Finishing - Medium	CCMT	09T304MQ	2	2	9.525	3.97	4.7	0.4	7	●	●	●	●	●		●				●		
			09T308MQ						0.8		●	●	●	●	●		●				●		
Finishing	 Precision / Sharp edge	CCET	0301003R-FSF	3	2	3.5	1.4	1.9	0.03	7										●			F31 F32 F60 F62
			0301003L-FSF						0.03											●			
			030101R-FSF						0.1											●			
			030101L-FSF						0.1											●		●	
			030102R-FSF						0.2											●		●	
			030102L-FSF						0.2											●		●	
			030104R-FSF						0.4											●			
			030104L-FSF						0.4											●		●	
		CCET	040101R-FSF	4	2	4.3	1.8	2.3	0.1	7										●			
			040101L-FSF						0.1											●			
			040102R-FSF						0.2											●		●	
			040102L-FSF						0.2											●		●	
			040104R-FSF						0.4											●			
			040104L-FSF						0.4											●		●	
Finishing	 Precision / Sharp edge	CCET	0301005ML-FSF	3	2	3.5	1.4	1.9	< 0.05	7						●							
			030101MR-FSF						< 0.1							●							
			030101ML-FSF						< 0.1							●							
			030102MR-FSF						< 0.2							●							
			030102ML-FSF						< 0.2							●							
			030104MR-FSF						< 0.4							●							
			030104ML-FSF						< 0.4							●							
		CCET	0401005ML-FSF	4	2	4.3	1.8	2.3	< 0.05	7						●							
			040101MR-FSF						< 0.1							●							
			040101ML-FSF						< 0.1							●							
			040102MR-FSF						< 0.2							●							
			040102ML-FSF						< 0.2							●							
			040104MR-FSF						< 0.4							●							
			040104ML-FSF						< 0.4							●							

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

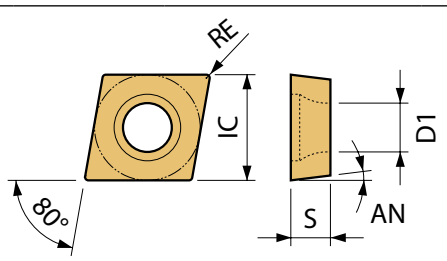
Applicable chipbreaker range

1	2	3	4
			

● : Standard item

80° Rhombic

How to read pages of "Turning inserts" See page B15

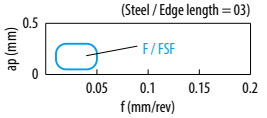
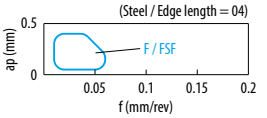


Free-cutting steel	●	P
Carbon steel / Alloy steel	● ◔	P
Stainless steel	◔ ● ◔ ◔	M
Gray cast iron	◔	K
Nodular cast iron		K
Non-ferrous metals	● ● ●	N
Heat-resistant alloy	●	S
Titanium alloy	● ◔	S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1225	PVD PR1535	PVD PR1705	PVD PR1725	PVD PR930	- KW10	Cermet PVD PV710	PVD PV720	PVD PV730	- TN60	- TN610	- TN620	Applicable toolholder
Finishing	 Sharp edge	CCET	0301005MR-F	1	2	3.5	1.4	1.9	< 0.05	7			●		●										F31 F32 F60 F62
			0301005ML-F						< 0.05			●	●		●									
			030101MR-F						< 0.1				●		●			●			●			
			030101ML-F						< 0.1		●	●	●		●			●	●	●	●	●	●	
			030102MR-F						< 0.2				●		●			●			●			
			030102ML-F						< 0.2		●	●	●	●	●			●	●	●	●	●	●	
			030104MR-F						< 0.4				●		●			●			●			
			030104ML-F						< 0.4		●	●	●	●	●			●	●	●	●	●	●	
		CCET	040101MR-F	2	2	4.3	1.8	2.3	< 0.1	7			●		●			●			●			
			040101ML-F						< 0.1		●	●	●		●			●	●	●	●	●	●	
			040102MR-F						< 0.2				●	●	●			●			●			
			040102ML-F						< 0.2		●	●	●	●	●			●	●	●	●	●	●	
			040104MR-F						< 0.4				●		●			●			●			
			040104ML-F						< 0.4		●	●	●	●	●			●	●	●	●	●	●	
Finishing	 Sharp edge	CCGT	0301003L-F	1	2	3.5	1.4	1.9	0.03	7							●								
			030101R-F						0.1								●	●						
			030101L-F						0.1								●	●				●		
			030102R-F						0.2								●	●				●		
			030102L-F						0.2								●	●				●		
			030104R-F						0.4								●	●				●		
			030104L-F						0.4								●	●				●		
		CCGT	0401003L-F	2	2	4.3	1.8	2.3	0.03	7							●								
			040101R-F						0.1								●	●						
			040101L-F						0.1								●	●				●		
			040102R-F						0.2								●	●				●		
			040102L-F						0.2								●	●				●		
			040104R-F						0.4								●	●				●		
			040104L-F						0.4								●	●				●		
		CCGT	0301005ML-F	1	2	3.5	1.4	1.9	< 0.05	7			●												
			030101MR-F						< 0.1				●												
			030101ML-F						< 0.1				●												
			030102MR-F						< 0.2				●												
			030102ML-F						< 0.2				●												
			030104MR-F						< 0.4				●												
			030104ML-F						< 0.4				●												
		CCGT	0401005ML-F	2	2	4.3	1.8	2.3	< 0.05	7			●												
			040101ML-F						< 0.1				●												
			040102MR-F						< 0.2				●												
			040102ML-F						< 0.2				●												
			040104MR-F						< 0.4				●												
			040104ML-F						< 0.4				●												

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

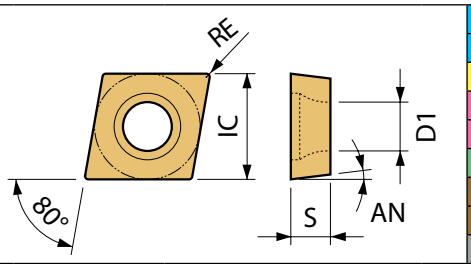
Applicable chipbreaker range

1	2
	

● : Standard item

80° Rhombic

How to read pages of "Turning inserts" See page B15



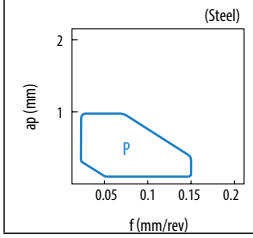
Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1225	PVD PR1535	PVD PR1705	PVD PR1725	PVD PR930	Cermet PVD PV710	PVD PV720	PVD PV730	- TN60	- TN610	- TN620	Applicable toolholder
Finishing	 Sharp edge	CCET	09T301MR-P	1	2	9.525	3.97	4.4	< 0.1	7			●		●								E26~E28 E54 F60~F62 F124
			09T301ML-P						< 0.1				●		●								
			09T302MR-P						< 0.2				●		●								
			09T302ML-P						< 0.2				●		●								
			09T304MR-P						< 0.4				●		●								
			09T304ML-P						< 0.4				●		●								
Low feed	 Precision / Sharp edge	CCET	0602003FR-USF	2	2	6.35	2.38	2.8	0.03	7						●							E26, E28 E54 F31, F32 F60~F62 F124
			0602003FL-USF						0.03							●							
			060201FR-USF						0.1							●				●			
			060201FL-USF						0.1							●							
			060202FR-USF						0.2							●				●			
			060202FL-USF						0.2							●				●			
		CCET	09T3003FR-USF	3	2	9.525	3.97	4.4	0.03	7						●				●			E26~E28 E54 F60~F62 F124
			09T3003FL-USF						0.03							●							
			09T301FR-USF						0.1							●				●			
			09T301FL-USF						0.1							●							
			09T302FR-USF						0.2							●				●			
			09T302FL-USF						0.2							●				●			
		CCET	0602005MFR-USF	2	2	6.35	2.38	2.8	< 0.05	7			●										E26, E28 E54 F31, F32 F60~F62 F124
			0602005MFL-USF						< 0.05				●										
			060201MFR-USF						< 0.1				●										
			060201MFL-USF						< 0.1				●										
			060202MFR-USF						< 0.2				●										
			060202MFL-USF						< 0.2				●										
		CCET	09T3005MFR-USF	3	2	9.525	3.97	4.4	< 0.05	7			●										E26~E28 E54 F60~F62 F124
			09T3005MFL-USF						< 0.05				●										
			09T301MFR-USF						< 0.1				●										
			09T301MFL-USF						< 0.1				●										
			09T302MFR-USF						< 0.2				●										
			09T302MFL-USF						< 0.2				●										
Low feed	 Sharp edge	CCET	0602005MFR-U	2	2	6.35	2.38	2.8	< 0.05	7		●		●	●								E26, E28 E54 F31, F32 F60~F62 F124
			0602005MFL-U						< 0.05			●		●									
			060201MFR-U						< 0.1		●	●		●	●			●	●			●	
			060201MFL-U						< 0.1		●	●		●				●	●			●	
			060202MFR-U						< 0.2		●	●		●	●			●	●			●	
			060202MFL-U						< 0.2		●	●		●	●			●	●			●	
		CCET	09T3005MFR-U	3	2	9.525	3.97	4.4	< 0.05	7		●		●	●								E26~E28 E54 F60~F62 F124
			09T3005MFL-U						< 0.05			●		●									
			09T301MFR-U						< 0.1		●	●		●	●			●	●			●	
			09T301MFL-U						< 0.1		●	●		●	●			●	●			●	
			09T302MFR-U						< 0.2		●	●		●	●			●	●			●	
			09T302MFL-U						< 0.2		●	●		●	●			●	●			●	
			09T304MFR-U						< 0.4		●	●		●		●							
			09T304MFL-U						< 0.4		●	●		●		●							

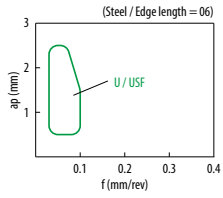
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

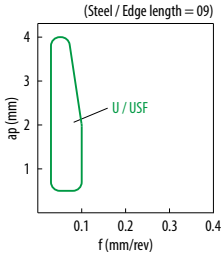
1



2



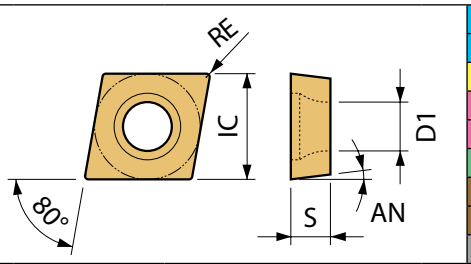
3



● : Standard item

80° Rhombic

How to read pages of "Turning inserts" See page B15

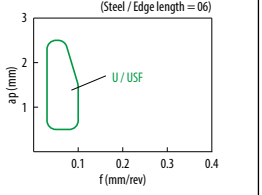
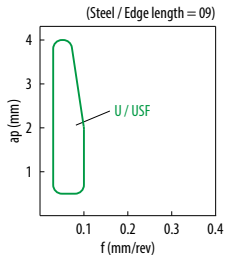


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PVD PR930	- KW10	Cermet - TN60	Applicable toolholder
Low feed	 Sharp edge	CCGT	0602003FR-U	1	2	6.35	2.38	2.8	0.03	7		●	●		E26, E28 E54 F31, F32 F60~F62 F124
			0602003FL-U						0.03			●	●		
			060201FR-U						0.1			●	●	●	
			060201FL-U						0.1			●	●	●	
			060202FR-U						0.2			●	●	●	
			060202FL-U						0.2			●	●	●	
		CCGT	09T3003FR-U	2	2	9.525	3.97	4.4	0.03	7		●	●	●	E26~E28 E54 F60~F62 F124
			09T3003FL-U						0.03			●	●		
			09T301FR-U						0.1			●	●	●	
			09T301FL-U						0.1			●	●	●	
			09T302FR-U						0.2			●	●	●	
			09T302FL-U						0.2			●	●	●	
		CCGT	0602005MFR-U	1	2	6.35	2.38	2.8	< 0.05	7	●				E26, E28 E54 F31, F32 F60~F62 F124
			0602005MFL-U						< 0.05		●				
			060201MFR-U						< 0.1		●				
			060201MFL-U						< 0.1		●				
			060202MFR-U						< 0.2		●				
			060202MFL-U						< 0.2		●				
			060204MFR-U						< 0.4		●				
			060204MFL-U						< 0.4		●				
		CCGT	09T3005MFR-U	2	2	9.525	3.97	4.4	< 0.05	7	●				E26~E28 E54 F60~F62 F124
			09T3005MFL-U						< 0.05		●				
			09T301MFR-U						< 0.1		●				
			09T301MFL-U						< 0.1		●				
			09T302MFR-U						< 0.2		●				
			09T302MFL-U						< 0.2		●				
			09T304MFR-U						< 0.4		●				
			09T304MFL-U						< 0.4		●				

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

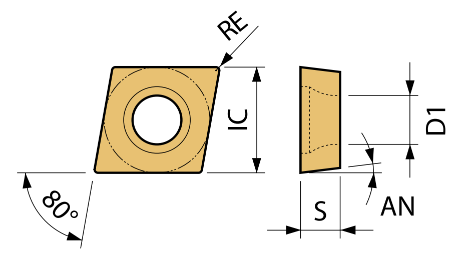
Applicable chipbreaker range

1	2
	

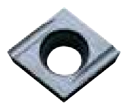
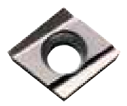
● : Standard item

80° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

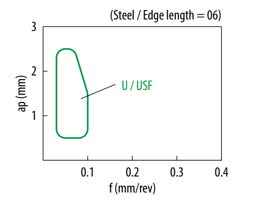
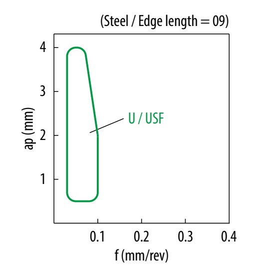
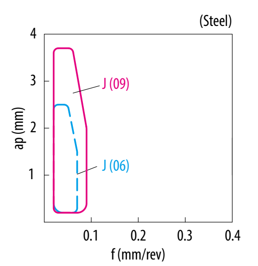


Work material	PR1225	PR1535	PR1725	PR930	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel											P
Carbon steel / Alloy steel	○		◐	○	●	◐	○		●	◐	P
Stainless steel	○	◐	○	○							M
Gray cast iron											K
Nodular cast iron											K
Non-ferrous metals											N
Heat-resistant alloy		◐									S
Titanium alloy		◐									S
Hard materials											H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1535	PR1725	PR930	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Low feed	 With honing	CCGT	060201ER-U	1	2	6.35	2.38	2.8	0.1	7				●	●				●		E26, E28 E54 F31, F32 F60~F62 F124
			060201EL-U						0.1					●	●	●	●	●	●	●	
			060202ER-U						0.2					●	●	●	●	●	●	●	
			060202EL-U						0.2					●	●	●	●	●	●	●	
			060204ER-U						0.4					●	●	●	●	●	●	●	
			060204EL-U						0.4					●	●	●	●	●	●	●	
		CCGT	09T301ER-U	2	2	9.525	3.97	4.4	0.1	7				●	●	●	●	●	●	●	E26~E28 E54 F60~F62 F124
			09T301EL-U						0.1					●	●	●	●	●	●	●	
			09T302ER-U						0.2					●	●	●	●	●	●	●	
			09T302EL-U						0.2					●	●	●	●	●	●	●	
			09T304ER-U						0.4					●	●	●	●	●	●	●	
			09T304EL-U						0.4					●	●	●	●	●	●	●	
		CCGT	060202MER-U	1	2	6.35	2.38	2.8	< 0.2	7			●								E26, E28 E54 F31, F32 F60~F62 F124
			060202MEL-U						< 0.2				●								
			060204MER-U						< 0.4				●								
			060204MEL-U						< 0.4				●								
		CCGT	09T301MER-U	2	2	9.525	3.97	4.4	< 0.1	7			●								E26~E28 E54 F60~F62 F124
			09T302MER-U						< 0.2				●								
			09T302MEL-U						< 0.2				●								
			09T304MER-U						< 0.4				●								
			09T304MEL-U						< 0.4				●								
Low feed	 Sharp edge	CCET	0602005MFR-J	3	2	6.35	2.38	2.8	< 0.05	7		●	●								E26, E28 E54 F31, F32 F60~F62 F124
			060201MFR-J						< 0.1		●	●	●								
			060201MFL-J						< 0.1		●	●	●								
			060202MFR-J						< 0.2		●	●	●								
			060202MFL-J						< 0.2		●	●	●								
		CCET	09T301MFR-J	3	2	9.525	3.97	4.4	< 0.1	7	●	●	●								E26~E28 E54 F60~F62 F124
			09T301MFL-J						< 0.1			●	●								
			09T302MFR-J						< 0.2		●	●	●								
			09T302MFL-J						< 0.2		●	●	●								
			09T304MFR-J						< 0.4		●	●	●								
			09T304MFL-J						< 0.4			●	●								

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

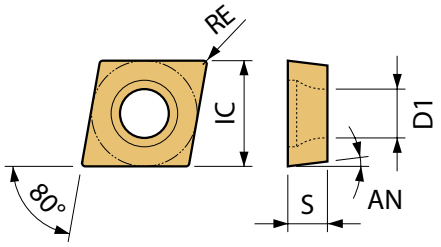
Applicable chipbreaker range

1	2	3
		

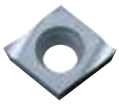
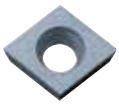
●: Standard item

80° Rhombic

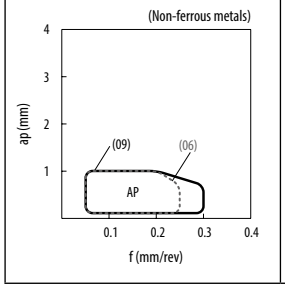
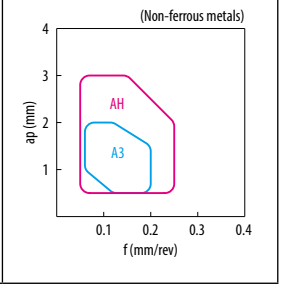
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	Carbide DLC PDL025	Carbide - KW10	Applicable toolholder
Non-ferrous metals	 Finishing / Sharp edge	CCGT	060202AP 060204AP	1	2	6.35	2.38	3	0.2 0.4	7	● ●		● ●	E26, E28, E54 F31, F32 F60~F62, F124
		CCGT	09T302AP 09T304AP 09T308AP	1	2	9.525	3.97	4.7	0.2 0.4 0.8	7	● ● ●		● ● ●	E26~E28 E54 F60~F62 F124
Non-ferrous metals	 Finishing - Medium / Sharp edge	CCGT	09T302R-A3 09T302L-A3 09T304R-A3 09T304L-A3 09T308R-A3 09T308L-A3	2	2	9.525	3.97	4.4	0.2 0.2 0.4 0.4 0.8 0.8	7	●● ●● ●● ●● ●● ●●	● ● ● ● ● ●	● ● ● ● ● ●	E26~E28 E54 F60~F62 F124
		CCGT	120402R-A3 120402L-A3 120404R-A3 120404L-A3 120408R-A3 120408L-A3	2	2	12.7	4.76	5.5	0.2 0.2 0.4 0.4 0.8 0.8	7	● ● ● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ●	E28
Non-ferrous metals	 Finishing - Medium / Sharp edge	CCGT	09T304AH 09T308AH	2	2	9.525	3.97	4.4	0.4 0.8	7	●● ●●	● ●	● ●	E26~E28 E54 F60~F62 F124
Cast iron	 Without chipbreaker	CCGW	060201 060202	-	2	6.35	2.38	2.8	0.1 0.2	7			● ●	E26, E28, E54 F31, F32 F60~F62, F124
		CCGW	09T300 09T301 09T302 09T304	-	2	9.525	3.97	4.4	0 0.1 0.2 0.4	7			● ● ● ●	E26~E28 E54 F60~F62 F124

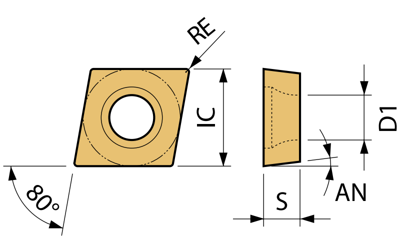
Applicable chipbreaker range

1	2
	

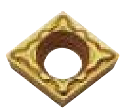
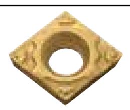
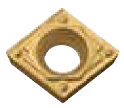
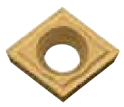
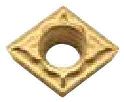
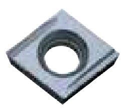
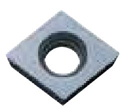
● : Standard item

80° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

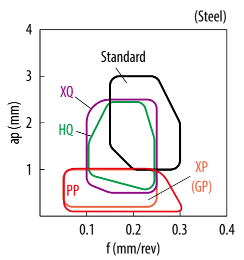


Work material	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1225	PR1535	PR1725	PR930	KW10	CCX	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel																												P
Carbon steel / Alloy steel	◔	○	◕						●			✖			◔		◕	◔		●		●	◕	◔		●	◕	P
Stainless steel													●	◕	◔	◕	◔	◔										M
Gray cast iron				●	◕	✣													◔	●	●							K
Nodular cast iron				○	◕	✖														○	○							K
Non-ferrous metals																			◕									N
Heat-resistant alloy													○	◔		◕												S
Titanium alloy																◕			◔									S
Hard materials																												H

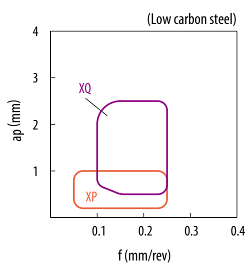
Chipbreaker	Insert	Description	Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN (Angle (°))	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	PR1225	PR1535	PR1725	PR930	KW10	CCX	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
					Dimension (mm)				Angle (°)	Carbide																			Cermet								
										CVD														PVD				-	CVD	PVD				-			
Finishing		CPMT 080202PP	1	2	7.94	2.38	3.3	0.2	11	●	●	●							○	○				●	●	●			●		●	●	●		●	●	F64 F65
Finishing		CPMT 080204PP	1	2	7.94	2.38	3.3	0.4	11	●	●	●							○	○	●			●	●	●			●		●	●	●		●	●	
Finishing		CPMT 090302PP	1	2	9.525	3.18	4.4	0.2	11	●	●	●							○	○				●	●	●			●		●	●	●		●	●	
Finishing		CPMT 090304PP	1	2	9.525	3.18	4.4	0.4	11	●	●	●							○	○				●	●	●			●		●	●	●		●	●	
Finishing		CPMT 090308PP	1	2	9.525	3.18	4.4	0.8	11	●	●	●							○	○					●	●			●		●	●	●		●	●	
Finishing		CPMT 080204GP	1	2	7.94	2.38	3.3	0.4	11	●	●	●							○	○					●	●	●				●	●	●	●	●	●	
Finishing		CPMT 090304GP	1	2	9.525	3.18	4.4	0.4	11	●	●	●							○	○					●	●	●				●	●	●	●	●	●	
Finishing		CPMT 090308GP	1	2	9.525	3.18	4.4	0.8	11	●	●	●							○	○	●				●	●	●				●	●	●	●	●	●	
Finishing - Medium		CPMH 080204HQ	1	2	7.94	2.38	3.5	0.4	11	●	●	●							○	○	●	●	●		●	●	●		●		●	●	●	●	●	●	
Finishing - Medium		CPMH 080208HQ	1	2	7.94	2.38	3.5	0.8	11	●	●	●						●	○	○	●	●	●		●	●	●		●		●	●	●	●	●	●	
Finishing - Medium		CPMH 090304HQ	1	2	9.525	3.18	4.5	0.4	11	●	●	●						●	○	○	●	●	●		●	●	●		●		●	●	●	●	●	●	
Finishing - Medium		CPMH 090308HQ	1	2	9.525	3.18	4.5	0.8	11	●	●	●						●	○	○	●	●	●		●	●	●		●		●	●	●	●	●	●	
Medium		CPMH 080204	1	2	7.94	2.38	3.5	0.4	11	●	●	●	●	●	●		●		○	○	●	●	●		●	●	●		●		●	●	●	●	●	●	
Medium		CPMH 080208	1	2	7.94	2.38	3.5	0.8	11	●	●	●	●	●	●		●		○	○	●	●	●		●	●	●		●	●	●	●	●	●	●	●	
Medium		CPMH 090304	1	2	9.525	3.18	4.5	0.4	11	●	●	●	●	●	●	●	●		○	○	●	●	●		●	●	●		●	●	●	●	●	●	●	●	
Medium		CPMH 090308	1	2	9.525	3.18	4.5	0.8	11	●	●	●	●	●	●	●	●	●	○	○	●	●	●		●	●	●		●	●	●	●	●	●	●	●	
Low carbon steel	 Finishing	CPMT 080204XP	2	2	7.94	2.38	3.3	0.4	11	●	●	●							○	○	●				●	●	●		●		●	●	●		●	●	
Low carbon steel		CPMT 090304XP	2	2	9.525	3.18	4.4	0.4	11	●	●	●							○	○					●	●	●		●		●	●	●		●	●	
Low carbon steel		CPMT 090308XP	2	2	9.525	3.18	4.4	0.8	11	●	●	●						●	○	○	●				●	●	●		●		●	●	●		●	●	
Low carbon steel	 Finishing - Medium	CPMT 090304XQ	2	2	9.525	3.18	4.4	0.4	11	●	●	●						●	○	○	●								●		●	●	●		●	●	
Low carbon steel		CPMT 090308XQ	2	2	9.525	3.18	4.4	0.8	11	●	●	●						●	○	○	●								●		●	●	●		●	●	
Finishing - Medium		CPMH 080204R-Y	3	2	7.94	2.38	3.5	0.4	11																	●	●	●			●	●	●	●	●	●	
Finishing - Medium		CPMH 080204L-Y	3	2	7.94	2.38	3.5	0.4	11																	●	●	●			●	●	●	●	●	●	
Finishing - Medium		CPMH 080208L-Y	3	2	7.94	2.38	3.5	0.8	11																			●									
Finishing - Medium		CPMH 090304R-Y	3	2	9.525	3.18	4.5	0.4	11																	●	●	●			●	●	●	●	●	●	
Finishing - Medium		CPMH 090304L-Y	3	2	9.525	3.18	4.5	0.4	11																	●	●	●			●	●	●	●	●	●	
Finishing - Medium		CPMH 090308R-Y	3	2	9.525	3.18	4.5	0.8	11																			●									
Finishing - Medium		CPMH 090308L-Y	3	2	9.525	3.18	4.5	0.8	11																		●	●						●			
Cast iron	 Without chipbreaker	CPMB 080202	-	2	7.94	2.38	3.5	0.2	11																			●									
Cast iron		CPMB 080204	-	2	7.94	2.38	3.5	0.4	11																			●									
Cast iron		CPMB 080208	-	2	7.94	2.38	3.5	0.8	11																			●									
Cast iron		CPMB 090302	-	2	9.525	3.18	4.5	0.2	11																			●									
Cast iron		CPMB 090304	-	2	9.525	3.18	4.5	0.4	11																			●									
Cast iron		CPMB 090308	-	2	9.525	3.18	4.5	0.8	11																			●									

Applicable chipbreaker range

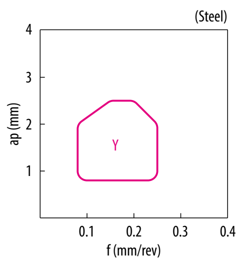
1



2



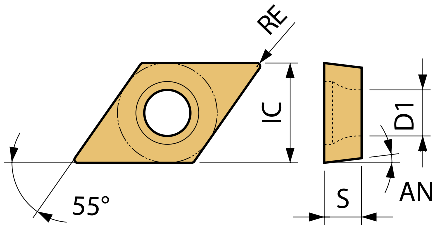
3



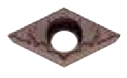
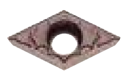
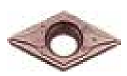
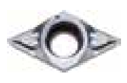
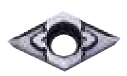
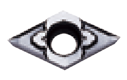
● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



Work material	PDL010	PDL025	PR115S	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	KW10	PV730	
Free-cutting steel							◐					P
Carbon steel / Alloy steel					○			◐	○		○	P
Stainless steel			○	○	○	◐		○	○			M
Gray cast iron										○		K
Nodular cast iron												K
Non-ferrous metals	●	◐								◐		N
Heat-resistant alloy			●	◐		✣						S
Titanium alloy						◐				○		S
Hard materials												H

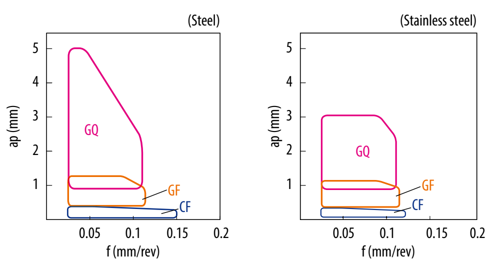
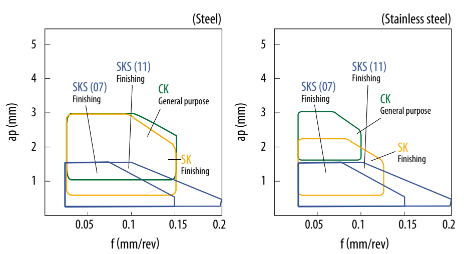
	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN	PDL010	PDL025	PR115S	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	KW10	PV730	Applicable toolholder
						Dimension (mm)				Angle (°)	Carbide DLC		Carbide PVD							Carbide -	Cermet PVD	
Minute ap	 Sharp edge	DCGT	070202CF	1	2	6.35	2.38	2.8	0.2	7									●			*1
		DCGT	11T302CF	1	2	9.525	3.97	4.4	0.2	7									●			*2
Minute ap	 Polished / Sharp edge	DCGT	070201MP-CF 070202MP-CF	1	2	6.35	2.38	2.8	< 0.1 < 0.2	7	● ●	● ●			● ●	● ●	 ●	● ●				*1
		DCGT	11T301MP-CF 11T302MP-CF	1	2	9.525	3.97	4.4	< 0.1 < 0.2	7	● ●	● ●			● ●	● ●	● ●	● ●				*2
Finishing	 Polished / Sharp edge	DCGT	070201MFP-GF 070202MFP-GF 070204MFP-GF	1	2	6.35	2.38	3	< 0.1 < 0.2 < 0.4	7					● ● ●	● ● ●	● ● ●	● ● ●				*1
		DCGT	11T301MFP-GF 11T302MFP-GF 11T304MFP-GF	1	2	9.525	3.97	4.7	< 0.1 < 0.2 < 0.4	7					● ● ●	● ● ●	● ● ●	● ● ●				*2
Finishing	 Polished / Sharp Edge	DCGT	0702005MFP-SKS 070201MFP-SKS 070202MFP-SKS	2	2	6.35	2.38	3	< 0.05 < 0.1 < 0.2	7			● ● ●	● ● ●		● ● ●	● ● ●	● ● ●			● ● ●	*1
		DCGT	11T3005MFP-SKS 11T301MFP-SKS 11T302MFP-SKS 11T304MFP-SKS	2	2	9.525	3.97	4.7	< 0.05 < 0.1 < 0.2 < 0.4	7			● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	● ● ● ●			● ● ● ●	*2
Finishing	 Polished / Sharp edge	DCGT	070201MFP-SK 070202MFP-SK 070204MFP-SK	2	2	6.35	2.38	3	< 0.1 < 0.2 < 0.4	7	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●			● ● ●	*1
		DCGT	11T301MFP-SK 11T302MFP-SK 11T304MFP-SK	2	2	9.525	3.97	4.7	< 0.1 < 0.2 < 0.4	7	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●			● ● ●	*2
Finishing		DCGT	070201CK 070202CK	2	2	6.35	2.38	2.8	0.1 0.2	7									● ●			*1
		DCGT	11T301CK 11T302CK	2	2	9.525	3.97	4.4	0.1 0.2	7									● ●			*2
Finishing	 Polished / Sharp edge	DCGT	070201MP-CK 070202MP-CK	2	2	6.35	2.38	2.8	< 0.1 < 0.2	7	● ●	● ●			● ●	● ●	● ●	● ●				*1
		DCGT	11T301MP-CK 11T302MP-CK	2	2	9.525	3.97	4.4	< 0.1 < 0.2	7	● ●	● ●			● ●	● ●	● ●	● ●		● ●		*2

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

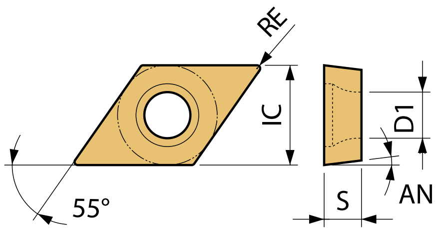
Applicable chipbreaker range

1	2
	

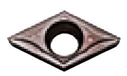
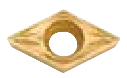
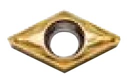
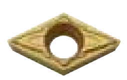
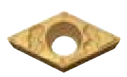
● : Standard item

55° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



Work material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PR115S	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	CCX	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel												◐										P
Carbon steel / Alloy steel	◔	○	◐	●			✖			◔			◐	◔	●	●	◐	◔		●	◐	P
Stainless steel								○	◔	◔	◐		◔	◔								M
Gray cast iron															●							K
Nodular cast iron															○							K
Non-ferrous metals																						N
Heat-resistant alloy								●	◐		✖											S
Titanium alloy											◐											S
Hard materials																						H

Application	Insert	Description	Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PR115S	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	CCX	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
				Dimension (mm)					Angle (°)	Carbide CVD							Carbide PVD							Cermet CVD	Cermet PVD			Cermet -			
Finishing - Medium	 Polished / Sharp edge	DCGT 070201MFP-GQ	B68 1	2	6.35	2.38	3	< 0.1	7								●	●	●	●	●	●									*1
		DCGT 070202MFP-GQ	B68 1	2	6.35	2.38	3	< 0.2	7								●	●	●	●	●	●									*1
		DCGT 070204MFP-GQ	B68 1	2	6.35	2.38	3	< 0.4	7								●	●	●	●	●	●									*1
		DCGT 11T301MFP-GQ	B68 1	2	9.525	3.97	4.7	< 0.1	7								●	●	●	●	●	●									*2
		DCGT 11T302MFP-GQ	B68 1	2	9.525	3.97	4.7	< 0.2	7								●	●	●	●	●	●									*2
		DCGT 11T304MFP-GQ	B68 1	2	9.525	3.97	4.7	< 0.4	7								●	●	●	●	●	●									*2
Finishing	 With Wiper Edge	DCMX 070202WP	1	2	6.35	2.38	3	0.2	7	●	●	●	●	○	○	●						●			●	●			●	●	*3
		DCMX 070204WP	1	2	6.35	2.38	3	0.4	7	●	●	●	●	○	○	●						●			●	●			●	●	*3
		DCMX 070208WP	1	2	6.35	2.38	3	0.8	7	●	●	●	●	○	○	●						●			●	●			●	●	*3
		DCMX 11T302WP	1	2	9.525	3.97	4.7	0.2	7	●	●	●	●	○	○	●			●			●			●	●			●	●	*4
		DCMX 11T304WP	1	2	9.525	3.97	4.7	0.4	7	●	●	●	●	○	○	●			●			●			●	●			●	●	*4
		DCMX 11T308WP	1	2	9.525	3.97	4.7	0.8	7	●	●	●	●	○	○	●						●			●	●			●	●	*4
Finishing	 With Wiper Edge	DCMX 070204R-WP	1	2	6.35	2.38	3	0.4	7													●				●				●	*3
		DCMX 070204L-WP	1	2	6.35	2.38	3	0.4	7													●				●				●	*3
		DCMX 11T304R-WP	1	2	9.525	3.97	4.7	0.4	7													●				●				●	*4
		DCMX 11T304L-WP	1	2	9.525	3.97	4.7	0.4	7													●				●				●	*4
Finishing		DCMT 070202PP	2	2	6.35	2.38	3	0.2	7	●	●	●	●	○	○	●			●	●		●		●	●	●	●		●	●	*1
		DCMT 070204PP	2	2	6.35	2.38	3	0.4	7	●	●	●	●	○	○	●			●	●		●		●	●	●	●		●	●	*1
		DCMT 11T302PP	2	2	9.525	3.97	4.7	0.2	7	●	●	●	●	○	○	●			●	●		●		●	●	●	●		●	●	*2
		DCMT 11T304PP	2	2	9.525	3.97	4.7	0.4	7	●	●	●	●	○	○	●			●	●		●		●	●	●	●		●	●	*2
		DCMT 11T308PP	2	2	9.525	3.97	4.7	0.8	7	●	●	●	●	○	○	●			●	●		●		●	●	●	●		●	●	*2
Finishing		DCMT 070202GP	3	2	6.35	2.38	2.8	0.2	7	●	●	●		○	○					●		●	●		●	●	●	●	●	●	*1
		DCMT 070204GP	3	2	6.35	2.38	2.8	0.4	7	●	●	●		○	○					●		●	●		●	●	●	●	●	●	*1
		DCMT 11T304GP	4	2	9.525	3.97	4.4	0.4	7	●	●	●		○	○	●				●		●	●		●	●	●	●	●	●	*2
		DCMT 11T308GP	4	2	9.525	3.97	4.4	0.8	7	●	●	●		○	○					●		●	●		●	●	●	●	●	●	*2

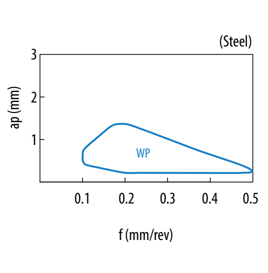
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

See "Precautions when using Wiper inserts" in the **R36** and **R37** for WP chipbreaker.

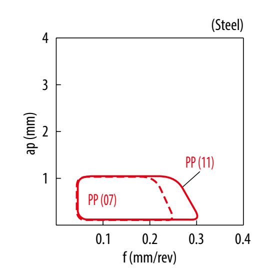
*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**
*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**
*3 : DC..07type WP **E29, E31, E55, F66~F68, F74~F76, F125**
*4 : DC..11type WP **E23, E29~E32, E55, F66~F68, F74~F76, F125**

Applicable chipbreaker range

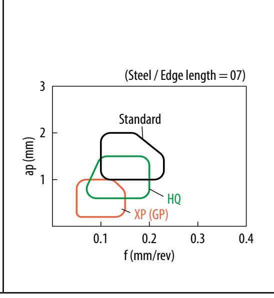
1



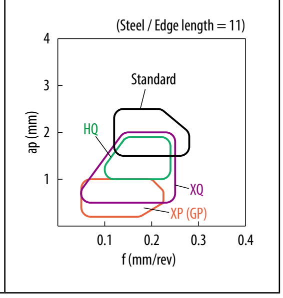
2



3



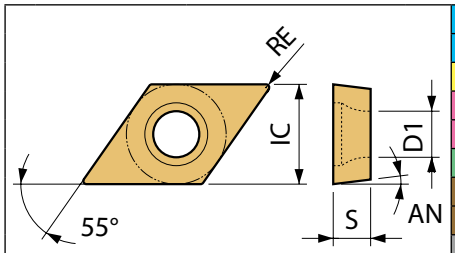
4



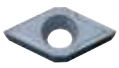
● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

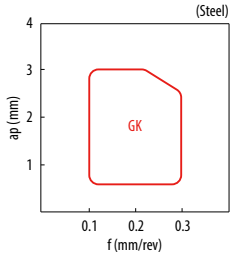
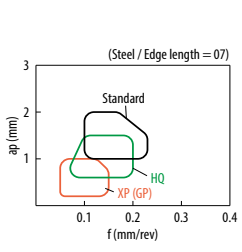
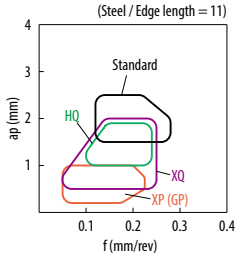
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1225	PR1535	PR1705	PR1725	PR930	Cermet CVD CCX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		DCMT	070202GK	1	2	6.35	2.38	2.8	0.2	7	●	●	●						○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	*1
			070204GK						0.4		●	●	●	●	●	●	●		○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
			070208GK						0.8		●	●	●	●	●	●			○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
		DCMT	11T302GK	1	2	9.525	3.97	4.4	0.2	7	●	●	●						○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	*2
			11T304GK						0.4		●	●	●	●	●	●	●	●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
			11T308GK						0.8		●	●	●	●	●	●		●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
Finishing - Medium		DCMT	070202HQ	2	2	6.35	2.38	2.8	0.2	7	●	●	●						○	○	●				●		●	●	●	●		●	●	●		●	●	*1
			070204HQ						0.4		●	●	●					●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
			070208HQ						0.8		●	●	●					●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
		DCMT	11T302HQ	3	2	9.525	3.97	4.4	0.2	7	●	●	●					●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	*2
			11T304HQ						0.4		●	●	●					●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
			11T308HQ						0.8		●	●	●					●	○	○	●	●	●		●		●	●	●	●		●	●	●		●	●	
Medium		DCGT	070201	2	2	6.35	2.38	2.8	0.1	7																		●									*1
			070202						0.2																			●									
			070204						0.4																			●									
		DCGT	11T301	3	2	9.525	3.97	4.4	0.1	7																		●									*2
			11T302						0.2																			●									
			11T304						0.4																			●									
		DCMT	11T308	3	2	9.525	3.97	4.4	0.8	7				●	●	●		●										●	●		●	●	●	●	●	●	
		DCGT	0702005M	2	2	6.35	2.38	2.8	< 0.05	7																		●									*1
			070201M						< 0.1																			●									
			070202M						< 0.2																			●									
			070204M						< 0.4																			●									
		DCGT	11T3005M	3	2	9.525	3.97	4.4	< 0.05	7																		●									*2
			11T301M						< 0.1																			●									
			11T302M						< 0.2																			●									
			11T304M						< 0.4																			●									
Medium	 Sharp edge	DCGT	0702005MF	2	2	6.35	2.38	2.8	< 0.05	7															●	●		●									*1
			070201MF						< 0.1																	●	●	●	●									
			070202MF						< 0.2																	●	●	●	●									
			070204MF						< 0.4																	●	●	●	●									
		DCGT	11T3005MF	3	2	9.525	3.97	4.4	< 0.05	7															●	●		●									*2
			11T301MF						< 0.1																	●	●	●	●									
			11T302MF						< 0.2																	●	●	●	●									
			11T304MF						< 0.4																	●	●	●	●									

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

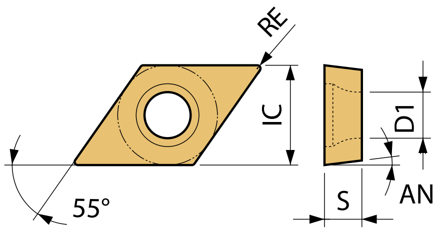
Applicable chipbreaker range

1	2	3
		

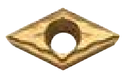
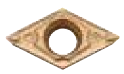
● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

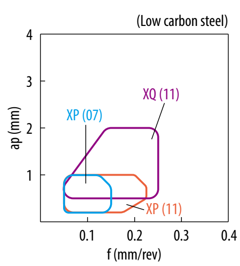
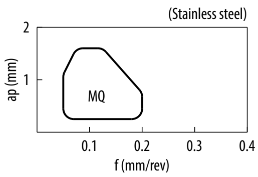


Workpiece material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	PR005S	PR115S	PR120S	PR1535	PR1725	PR930	SW05	CCX	PV710	PV720	PV730	TN610	TN620	
Free-cutting steel																							P
Carbon steel / Alloy steel	◷	○	◕	●			✖							◕	◷		●	●	◕	◷	●	◕	P
Stainless steel								●	◕		○	◷	◕	◷	◷								M
Gray cast iron																	●						K
Nodular cast iron																	○						K
Non-ferrous metals																							N
Heat-resistant alloy								○	◷	●	○	◕	✖										S
Titanium alloy													◕			◷							S
Hard materials																							H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR005S	PR115S	PR120S	PR1535	PR1725	PR930	Carbide - SW05	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN610	TN620	Applicable toolholder
Low carbon steel	 Finishing	DCMT 070204XP	1	2	6.35	2.38	2.8	0.4	7	●	●	●		○	○							●	●	●		●	●	●	●	●	●	*1
Low carbon steel	Finishing	DCMT 11T302XP	1	2	9.525	3.97	4.4	0.2	7	●	●	●		○	○							●	●	●		●	●	●	●	●	●	*2
		11T304XP						0.4		●	●	●	●	○	○	●						●	●	●		●	●	●	●	●	●	
		11T308XP						0.8		●	●	●		○	○	●						●	●	●		●	●	●	●	●	●	
Low carbon steel	 Finishing - Medium	DCMT 11T304XQ	1	2	9.525	3.97	4.4	0.4	7	●	●	●	●	○	○	●										●	●	●	●	●	●	*2
		11T308XQ						0.8		●	●	●	●	○	○	●										●	●	●	●	●	●	
Stainless steel / Heat-resistant alloys	 Finishing - Medium	DCMT 070202MQ	2	2	6.35	2.38	3	0.2	7								●	●	●	●	●	●			●							*1
		070204MQ						0.4									●	●	●	●	●	●			●							
Stainless steel / Heat-resistant alloys	Finishing - Medium	DCMT 11T302MQ	2	2	9.525	3.97	4.7	0.2	7								●	●				●										*2
		11T304MQ						0.4									●	●	●	●	●	●			●							
		11T308MQ						0.8											●	●	●	●			●							

*1 : DC..07type **E29, E31, E34 E35, E56, F66~F68, F70~F72, F74~F76, F125**
*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

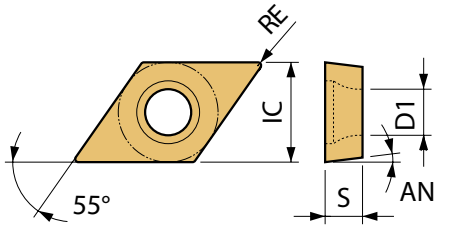
Applicable chipbreaker range

1	2
	

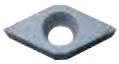
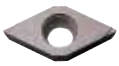
● : Standard item ○ : Will be replaced with a new product

55° Rhombic

How to read pages of "Turning inserts" See page B15

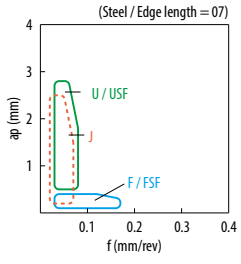
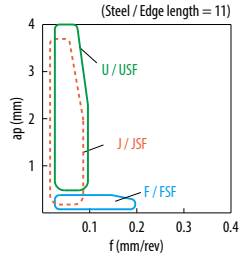


Free-cutting steel		P
Carbon steel / Alloy steel		P
Stainless steel		M
Gray cast iron		K
Nodular cast iron		K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	PDL025	PVD PR1225	PR1535	PR1705	PR1725	PR930	Cermet PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing	 Precision / Sharp edge	DCET	0702003R-FSF	1	2	6.35	2.38	2.8	0.03	7							●							*1
			0702003L-FSF						0.03								●							
			070201R-FSF						0.1								●							
			070201L-FSF						0.1								●							
			070202R-FSF						0.2								●				●			
			070202L-FSF						0.2								●				●			
			070204R-FSF						0.4								●				●			
			070204L-FSF						0.4								●				●			
		DCET	11T3003R-FSF	2	2	9.525	3.97	4.4	0.03	7							●							*2
			11T301R-FSF						0.1								●				●			
			11T301L-FSF						0.1								●							
			11T302R-FSF						0.2								●				●			
			11T302L-FSF						0.2								●				●			
			11T304R-FSF						0.4								●				●			
			11T304L-FSF						0.4								●				●			
		DCET	0702005MR-FSF	1	2	6.35	2.38	2.8	< 0.05	7			●											*1
			0702005ML-FSF						< 0.05				●											
			070201MR-FSF						< 0.1				●											
			070201ML-FSF						< 0.1				●											
			070202MR-FSF						< 0.2				●											
			070202ML-FSF						< 0.2				●											
			070204MR-FSF						< 0.4				●											
		DCET	11T3005MR-FSF	2	2	9.525	3.97	4.4	< 0.05	7			●											*2
			11T301MR-FSF						< 0.1				●											
			11T302MR-FSF						< 0.2				●											
			11T302ML-FSF						< 0.2				●											
			11T304MR-FSF						< 0.4				●											
Finishing	 Sharp edge	DCET	0702005MR-F	1	2	6.35	2.38	2.8	< 0.05	7		●		●	●	●								*1
			0702005ML-F						< 0.05						●									
			070201MR-F						< 0.1		●	●		●		●		●	●	●		●	●	
			070201ML-F						< 0.1		●	●		●		●		●	●	●		●	●	
			070202MR-F						< 0.2		●	●		●		●		●	●	●		●	●	
			070202ML-F						< 0.2		●	●		●		●		●	●	●		●	●	
			070204MR-F						< 0.4		●	●		●		●		●	●	●		●	●	
			070204ML-F						< 0.4		●	●		●		●		●	●	●		●	●	
		DCET	11T3005MR-F	2	2	9.525	3.97	4.4	< 0.05	7	●	●		●		●								*2
			11T301MR-F						< 0.1		●	●		●		●		●	●	●		●	●	
			11T301ML-F						< 0.1		●	●		●		●		●	●	●		●	●	
			11T302MR-F						< 0.2		●	●		●	●	●		●	●	●		●	●	
			11T302ML-F						< 0.2		●	●		●	●	●		●	●	●		●	●	
			11T304MR-F						< 0.4		●	●		●	●	●		●	●	●		●	●	
			11T304ML-F						< 0.4		●	●		●	●	●		●	●	●		●	●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

1	2
	

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

● : Standard item

55° Rhombic

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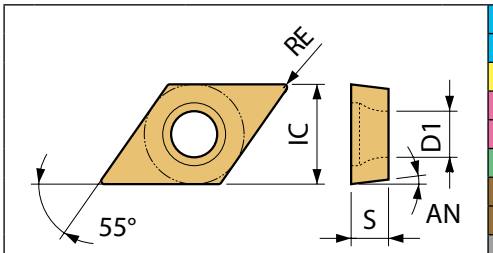


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

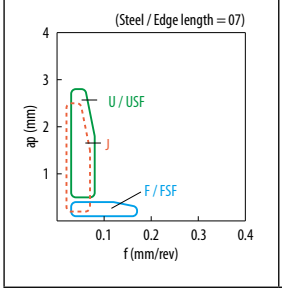
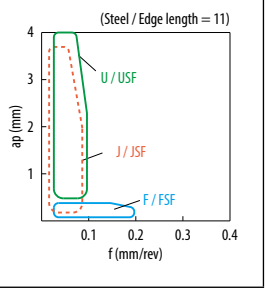
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PVD PR930	- KW10	Cermet - TN60	Applicable toolholder
Finishing	Sharp edge	DCGT	0702003R-F	1	2	6.35	2.38	2.8	0.03	7			●		*1
			0702003L-F						0.03				●		
			070201R-F						0.1			●	●		
			070201L-F						0.1			●	●		
			070202R-F						0.2			●	●	●	
			070202L-F						0.2			●	●	●	
			070204R-F						0.4			●	●	●	
			070204L-F						0.4			●	●	●	
		DCGT	11T3003R-F	2	2	9.525	3.97	4.4	0.03	7		●	●		*2
			11T3003L-F						0.03			●			
			11T301R-F						0.1			●	●	●	
			11T301L-F						0.1			●	●		
			11T302R-F						0.2			●	●	●	
			11T302L-F						0.2			●	●	●	
			11T304R-F						0.4			●	●	●	
			11T304L-F						0.4			●	●	●	
		DCGT	0702005MR-F	1	2	6.35	2.38	2.8	< 0.05	7	●				*1
			0702005ML-F						< 0.05		●				
			070201MR-F						< 0.1		●				
			070201ML-F						< 0.1		●				
			070202MR-F						< 0.2		●				
			070202ML-F						< 0.2		●				
			070204MR-F						< 0.4		●				
			070204ML-F						< 0.4		●				
		DCGT	11T3005MR-F	2	2	9.525	3.97	4.4	< 0.05	7	●				*2
			11T301MR-F						< 0.1		●				
			11T301ML-F						< 0.1		●				
			11T302MR-F						< 0.2		●				
			11T302ML-F						< 0.2		●				
			11T304MR-F						< 0.4		●				
			11T304ML-F						< 0.4		●				

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

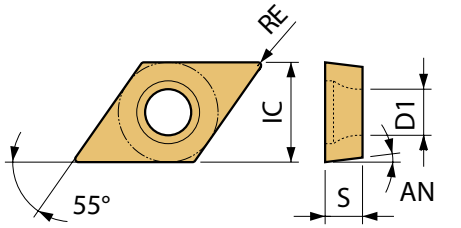
Applicable chipbreaker range

1	2
	

● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

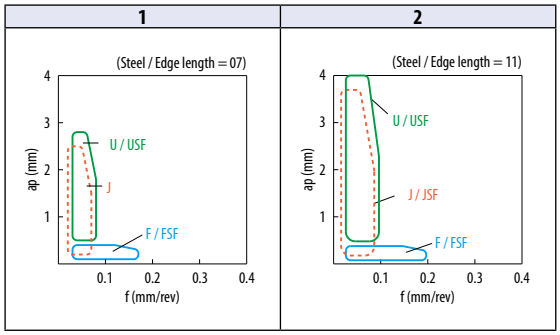
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1225	PVD PR1535	PVD PR1705	PVD PR1725	PVD PR930	Cermet PVD PV710	PVD PV720	PVD PV730	- TN60	- TN610	- TN620	Applicable toolholder
Low feed	Precision / Sharp edge	DCET	0702003FR-USF	1	2	6.35	2.38	2.8	0.03	7							●							*1
			0702003FL-USF						0.03								●							
			070201FR-USF						0.1								●							
			070201FL-USF						0.1								●							
			070202FR-USF						0.2								●				●			
			070202FL-USF						0.2								●				●			
		DCET	11T3003FR-USF	2	2	9.525	3.97	4.4	0.03	7							●							*2
			11T3003FL-USF						0.03								●							
			11T301FR-USF						0.1								●				●			
			11T301FL-USF						0.1								●				●			
			11T302FR-USF						0.2								●				●			
			11T302FL-USF						0.2								●				●			
		DCET	0702005MFR-USF	1	2	6.35	2.38	2.8	< 0.05	7			●											*1
			070201MFR-USF						< 0.1				●											
			070202MFR-USF						< 0.2				●											
			070202MFL-USF						< 0.2				●											
		DCET	11T3005MFR-USF	2	2	9.525	3.97	4.4	< 0.05	7			●											*2
			11T301MFR-USF						< 0.1				●											
			11T301MFL-USF						< 0.1				●											
			11T302MFR-USF						< 0.2				●											
			11T302MFL-USF						< 0.2				●											
Low feed	Sharp edge	DCET	0702003FR-U	1	2	6.35	2.38	2.8	0.03	7						●								*1
		DCET	0702005MFR-U	1	2	6.35	2.38	2.8	< 0.05	7		●		●		●						●		
			070201MFR-U						< 0.1		●	●		●	●	●		●				●		
			070201MFL-U						< 0.1		●	●		●		●		●				●		
			070202MFR-U						< 0.2		●	●		●	●	●		●	●	●		●	●	
			070202MFL-U						< 0.2		●	●		●		●		●	●	●		●	●	
		DCET	11T3005MFR-U	2	2	9.525	3.97	4.4	< 0.05	7		●		●	●	●								*2
			11T301MFR-U						< 0.1		●	●		●	●	●		●				●		
			11T301MFL-U						< 0.1		●	●		●		●		●				●		
			11T302MFR-U						< 0.2		●	●		●	●	●		●	●	●		●	●	
			11T302MFL-U						< 0.2		●	●		●	●	●		●	●	●		●	●	
			11T304MFR-U						< 0.4		●	●		●	●	●								

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

Applicable chipbreaker range



● : Standard item

55° Rhombic

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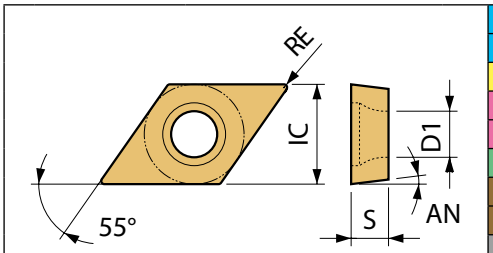
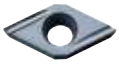


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

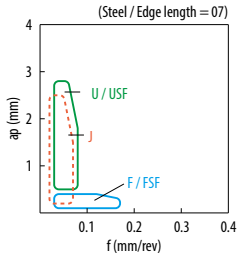
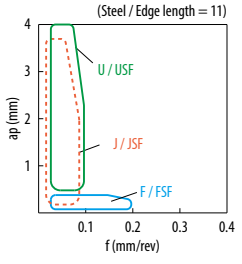
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PVD PR930	- KW10	- TN60	Cermet	Applicable toolholder
Low feed	 Sharp edge	DCGT	0702003FR-U	1	2	6.35	2.38	2.8	0.03	7		●	●			*1
			0702003FL-U						0.03			●				
			070201FR-U						0.1			●	●	●		
			070201FL-U						0.1			●	●	●		
			070202FR-U						0.2			●		●		
			070202FL-U						0.2			●		●		
		DCGT	11T3003FR-U	2	2	9.525	3.97	4.4	0.03	7		●	●	●		*2
			11T3003FL-U						0.03			●		●		
			11T301FR-U						0.1			●	●	●		
			11T301FL-U						0.1			●	●	●		
			11T302FR-U						0.2			●	●	●		
			11T302FL-U						0.2			●	●	●		
		DCGT	0702005MFR-U	1	2	6.35	2.38	2.8	< 0.05	7	●					*1
			0702005MFL-U						< 0.05		●					
			070201MFR-U						< 0.1		●					
			070201MFL-U						< 0.1		●					
			070202MFR-U						< 0.2		●					
			070202MFL-U						< 0.2		●					
			070204MFR-U						< 0.4		●					
			070204MFL-U						< 0.4		●					
		DCGT	11T3005MFR-U	2	2	9.525	3.97	4.4	< 0.05	7	●					*2
			11T301MFR-U						< 0.1		●					
			11T301MFL-U						< 0.1		●					
			11T302MFR-U						< 0.2		●					
			11T302MFL-U						< 0.2		●					
			11T304MFR-U						< 0.4		●					
			11T304MFL-U						< 0.4		●					

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

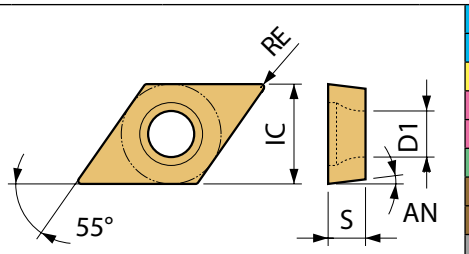
Applicable chipbreaker range

1	2
	

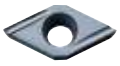
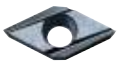
● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15



	P	M	K	N	S	H
Free-cutting steel	○	●	○	●	●	○		●	●	P
Carbon steel / Alloy steel	○	●	○	●	●	○		●	●	P
Stainless steel	○	○	○							M
Gray cast iron										K
Nodular cast iron										K
Non-ferrous metals										N
Heat-resistant alloy										S
Titanium alloy										S
Hard materials										H

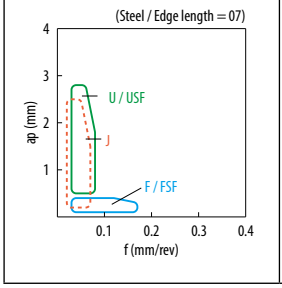
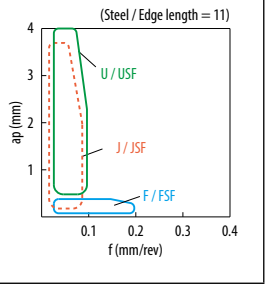
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	Carbide PVD PR1725	Carbide PVD PR930	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
Low feed	 With honing	DCGT	070201ER-U	1	2	6.35	2.38	2.8	0.1	7			●	●				●		*1
			070201EL-U						0.1					●				●		
			070202ER-U						0.2				●	●	●	●	●	●	●	
			070202EL-U						0.2				●	●	●	●	●	●	●	
			070204ER-U						0.4				●	●	●	●	●	●	●	
			070204EL-U						0.4				●	●	●	●	●	●	●	
		DCGT	11T301ER-U	2	2	9.525	3.97	4.4	0.1	7			●	●	●	●	●	●	●	*2
			11T301EL-U						0.1				●	●				●		
			11T302ER-U						0.2				●	●	●	●	●	●	●	
			11T302EL-U						0.2				●	●	●	●	●	●	●	
			11T304ER-U						0.4				●	●	●	●	●	●	●	
			11T304EL-U						0.4				●	●	●	●	●	●	●	
		DCGT	070201MER-U	1	2	6.35	2.38	2.8	< 0.1	7		●								*1
			070202MER-U						< 0.2			●								
			070202MEL-U						< 0.2			●								
			070204MER-U						< 0.4			●								
			070204MEL-U						< 0.4			●								
		DCGT	11T301MER-U	2	2	9.525	3.97	4.4	< 0.1	7		●								
			11T301MEL-U						< 0.1			●								
			11T302MER-U						< 0.2			●								
			11T302MEL-U						< 0.2			●								
			11T304MER-U						< 0.4			●								
			11T304MEL-U						< 0.4			●								
Low feed	 Precision / Sharp edge	DCET	11T3003FR-JSF	2	2	9.525	3.97	4.4	0.03	7			●							*2
			11T3003FL-JSF						0.03				●							
			11T301FR-JSF						0.1				●							
			11T301FL-JSF						0.1				●							
			11T302FR-JSF						0.2				●							
			11T302FL-JSF						0.2				●							
		DCET	11T3005MFR-JSF	2	2	9.525	3.97	4.4	< 0.05	7	●									
			11T301MFR-JSF						< 0.1		●									
			11T302MFR-JSF						< 0.2		●									
			11T302MFL-JSF						< 0.2		●									

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

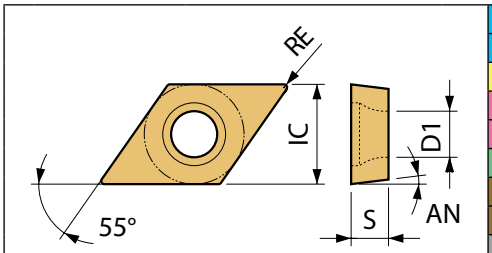
Applicable chipbreaker range

1	2
	

● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15



Free-cutting steel		P
Carbon steel / Alloy steel		P
Stainless steel		M
Gray cast iron		K
Nodular cast iron		K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

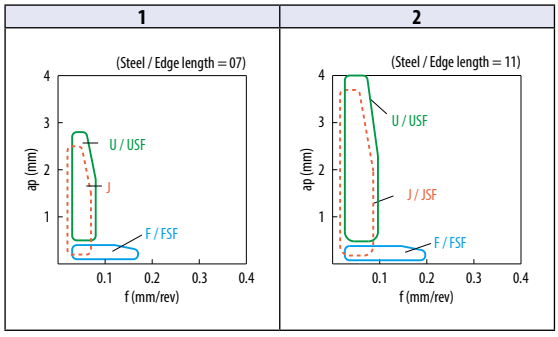
Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1535	PR1705	PR1725	PR930	Carbide - KW10	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Low feed	Sharp edge	DCET	0702005MFR-J	1	2	6.35	2.38	2.8	< 0.05	7	●	●		●									*1
			070201MFR-J						< 0.1		●	●		●									
			070201MFL-J						< 0.1			●		●									
			070202MFR-J						< 0.2		●	●		●									
			070202MFL-J						< 0.2		●	●		●									
		DCET	11T3005MFR-J	2	2	9.525	3.97	4.4	< 0.05	7		●		●									
			11T301MFR-J						< 0.1			●	●	●			●				●		
			11T301MFL-J						< 0.1			●		●			●				●		
			11T302MFR-J						< 0.2			●	●	●			●				●		
			11T302MFL-J						< 0.2			●		●			●				●		
			11T304MFR-J						< 0.4			●	●	●									
			11T304MFL-J						< 0.4				●										
Low feed	Sharp edge	DCGT	11T301FR-J	2	2	9.525	3.97	4.4	0.1	7					●	●				●			
			11T301FL-J						0.1						●								
			11T302FR-J						0.2						●	●				●			
			11T302FL-J						0.2						●	●				●			
		DCGT	11T3005MFR-J	2	2	9.525	3.97	4.4	< 0.05	7	●												*2
			11T301MFR-J						< 0.1		●												
			11T301MFL-J						< 0.1		●												
			11T302MFR-J						< 0.2		●												
			11T302MFL-J						< 0.2		●												
			11T304MFR-J						< 0.4		●												
			11T304MFL-J						< 0.4		●												
Low feed	With honing	DCGT	11T3003ER-J	2	2	9.525	3.97	4.4	0.03	7					●								
			11T301ER-J						0.1						●	●	●	●		●	●		
			11T301EL-J						0.1								●			●			
			11T302ER-J						0.2						●	●	●	●	●	●	●		
			11T302EL-J						0.2						●		●			●			
			11T304ER-J						0.4						●	●	●	●	●	●	●		
			11T304EL-J						0.4						●	●	●	●	●	●	●		
		DCGT	11T3005MER-J	2	2	9.525	3.97	4.4	< 0.05	7			●										
			11T301MER-J						< 0.1				●										
			11T302MER-J						< 0.2				●										
			11T304MER-J						< 0.4				●										
			11T304MEL-J						< 0.4				●										

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

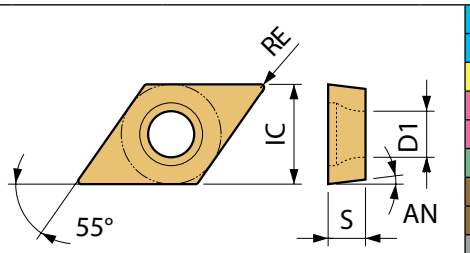
Applicable chipbreaker range



● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15

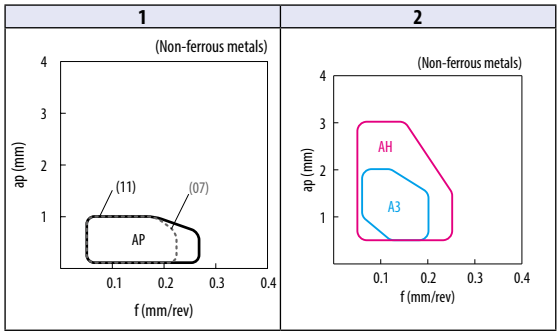


Free-cutting steel	P
Carbon steel / Alloy steel	
Stainless steel	M
Gray cast iron	K
Nodular cast iron	
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	- KW10	Applicable toolholder
Non-ferrous metals	 Finishing / Sharp edge	DCGT 070202AP 070204AP	1	2	6.35	2.38	2.8	0.2 0.4	7	● ●		● ●	*1
		DCGT 11T302AP 11T304AP 11T308AP	1	2	9.525	3.97	4.4	0.2 0.4 0.8	7	● ● ●		● ● ●	*2
Non-ferrous metals	 Finishing - Medium / Sharp edge	DCGT 11T302R-A3 11T302L-A3 11T304R-A3 11T304L-A3 11T308R-A3 11T308L-A3	2	2	9.525	3.97	4.4	0.2 0.2 0.4 0.4 0.8 0.8	7	●● ●● ●● ●● ●● ●●		● ● ● ● ● ●	*2
Non-ferrous metals	 Finishing - Medium / Sharp edge	DCGT 11T304AH 11T308AH	2	2	9.525	3.97	4.4	0.4 0.8	7	●● ●●		● ●	*2
Cast iron	 Without chipbreaker	DCGW 070201 070202	-	2	6.35	2.38	2.8	0.1 0.2	7			● ●	*1
		DCGW 11T301 11T302 11T304	-	2	9.525	3.97	4.4	0.1 0.2 0.4	7			● ● ●	*2

*1 : DC..07type **E29, E31, E34 E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**
*2 : DC..11type **E23, E29~E32, E34, E35, E55, E56, F66~F68, F70~F72, F74~F76, F125**

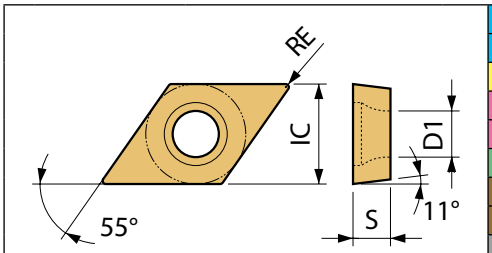
Applicable chipbreaker range



● : Standard item

55° Rhombic

How to read pages of "Turning inserts" See page B15

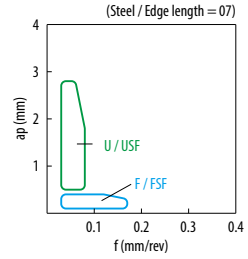
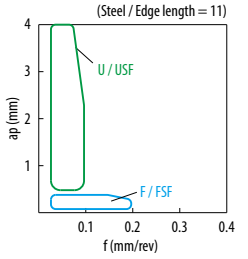


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1725	Carbide PVD PR930	Cermet - TN60	Applicable toolholder
Finishing	Precision / Sharp edge	DPET	0702003R-FSF	1	2	6.35	2.38	2.8	0.03	11		●		E37
			070201R-FSF						0.1			●		
			070202R-FSF						0.2			●		
			070202L-FSF						0.2			●		
		DPET	11T3003R-FSF	2	2	9.525	3.97	4.4	0.03	11		●		
			11T301R-FSF						0.1			●		
			11T302R-FSF						0.2			●	●	
			11T302L-FSF						0.2			●	●	
		DPET	070202MR-FSF	1	2	6.35	2.38	2.8	< 0.2	11	●			
			070202ML-FSF								●			
		DPET	11T3005MR-FSF	2	2	9.525	3.97	4.4	< 0.05	11	●			
			11T301MR-FSF						< 0.1		●			
			11T302MR-FSF						< 0.2		●			
Low feed	Precision / Sharp edge	DPET	0702003FR-USF	1	2	6.35	2.38	2.8	0.03	11		●		
			070201FR-USF						0.1			●		
			070201FL-USF						0.1			●		
			070202FR-USF						0.2			●		
			070202FL-USF						0.2			●		
		DPET	11T3003FR-USF	2	2	9.525	3.97	4.4	0.03	11		●		
			11T301FR-USF						0.1			●		
			11T301FL-USF						0.1			●		
			11T302FR-USF						0.2			●	●	
			11T302FL-USF						0.2			●	●	
		DPET	0702005MFR-USF	1	2	6.35	2.38	2.8	< 0.05	11	●			
			070201MFR-USF						< 0.1		●			
			070202MFR-USF						< 0.2		●			
		DPET	11T3005MFR-USF	2	2	9.525	3.97	4.4	< 0.05	11	●			
			11T301MFR-USF						< 0.1		●			
			11T302MFR-USF						< 0.2		●			

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

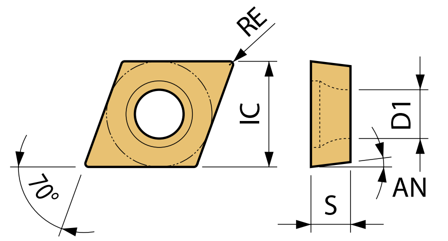
Applicable chipbreaker range

1	2
	

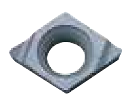
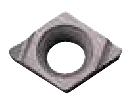
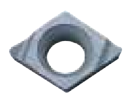
● : Standard item

70° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

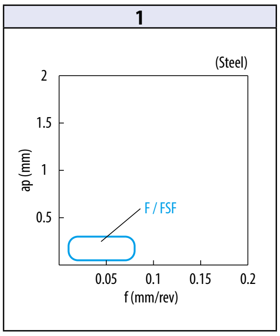


Work material	PR1535	PR1725	PR930	KW10	TN60	
Free-cutting steel						P
Carbon steel / Alloy steel		◕	○			P
Stainless steel	◕	○	○			M
Gray cast iron						K
Nodular cast iron						K
Non-ferrous metals				◕		N
Heat-resistant alloy	◕					S
Titanium alloy	◕			○		S
Hard materials						H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1535	Carbide PVD PR1725	Carbide PVD PR930	Carbide - KW10	Cermet - TN60	Applicable toolholder
Finishing	 Precision / Sharp edge	JCET	030102R-FSF	1	2	3.5	1.4	1.9	0.2	7					●	F78 F79
			030102L-FSF						0.2				●		●	
			030104L-FSF						0.4				●			
		JCET	030101MR-FSF	1	2	3.5	1.4	1.9	< 0.1	7		●				
			030101ML-FSF									●				
Finishing	 Sharp edge	JCET	030102MR-F	1	2	3.5	1.4	1.9	< 0.2	7	●	●				
			030102ML-F						< 0.2		●	●				
			030104MR-F						< 0.4		●	●				
			030104ML-F						< 0.4		●	●				
Finishing	 Sharp edge	JCGT	030101R-F	1	2	3.5	1.4	1.9	0.1	7			●			
			030101L-F						0.1				●	●	●	
			030102R-F						0.2				●	●	●	
			030102L-F						0.2				●	●	●	
			030104R-F						0.4				●		●	
			030104L-F						0.4				●		●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range



● : Standard item

Round

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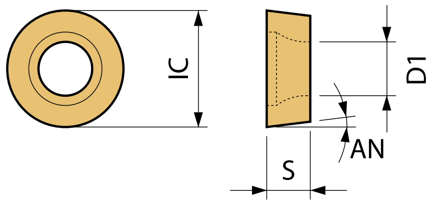
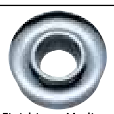


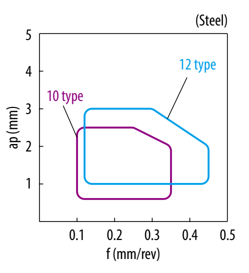
Work material	CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4515	CA510	CA515	CA525	CA530	CA6525	KW10	PV720	PV730	TN60	TN620	
Free-cutting steel																		P
Carbon steel / Alloy steel	◔	○	◕					●			✖			◕	◔		◕	P
Stainless steel												◕						M
Gray cast iron				●	◕	✕												K
Nodular cast iron				○	◕	✖												K
Non-ferrous metals													◕					N
Heat-resistant alloy												◔						S
Titanium alloy													◕					S
Hard materials																		H

	Insert	Description		Applicable chipbreaker range	Dimension (mm) IC	S	D1	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4515	CA510	CA515	CA525	CA530	CA6525	Carbide - KW10	Cermet PVD PV720	PV730	Cermet - TN60	TN620	Applicable toolholder
Medium		RCMX	1003M0	1	10	3.18	3.6	7	●	●	●					●	○	○	●	●		●	●	●	●	D40
Medium		RCMX	1204M0	1	12	4.76	4.2	7	●	●	●	●	●	●	●	●	○	○	●	●		●	●	●	●	D40
Non-ferrous metals	 Finishing - Medium	RCGX	1003M0-AQ	2	10	3.18	3.6	7													●					D40

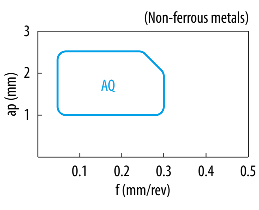
Chipbreaker shape of RCMX... varies by grade (cermet / PVD coated cermet / CVD coated carbide)

Applicable chipbreaker range

1



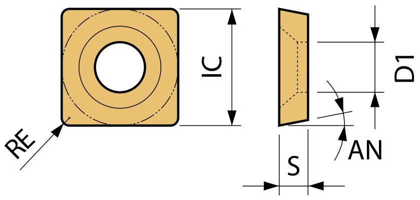
2



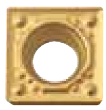
● : Standard item ○ : Will be replaced with a new product

90° Square

How to read pages of "Turning inserts" ➡ See page **B15**

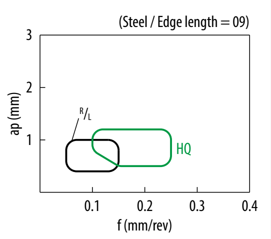


Work material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PV710	PV720	PV730	TN60	TN610	TN620	ISO
Free-cutting steel														P
Carbon steel / Alloy steel	◴	○	◕	●			✖	●	◕	◴		●	◕	P
Stainless steel														M
Gray cast iron														K
Nodular cast iron														K
Non-ferrous metals														N
Heat-resistant alloy														S
Titanium alloy														S
Hard materials														H

	Insert	Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing - Medium		SCMT 09T304HQ	1	4	9.525	3.97	4.4	0.4	7	●	●	●	●	○	○	●	●	●	●	●	●	●	-
		SCMT 09T308HQ						0.8		●	●	●		○	○	●	●	●	●	●	●	●	
Finishing		SPGH 090304L	1	4	9.525	3.18	4.6	0.4	11											●			**F111**

Applicable chipbreaker range

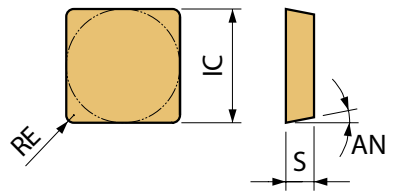
1



●: Standard item　○: Will be replaced with a new product

90° Square

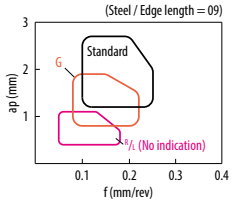
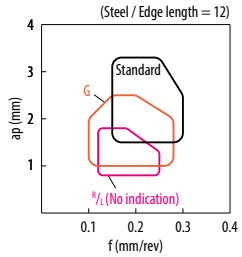
How to read pages of "Turning inserts" See page B15



Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	RE	Angle (°) AN	Carbide: CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4515	CA515	CA525	CA530	CA6525	Carbide: PVD PR1535	Carbide: - KW10	Cermet: CVD COX	Cermet: PVD PV7005	PV710	PV720	PV730	Cermet: - TN60	TN610	TN620	Applicable toolholder
Medium		SPMR	090304G 090308G	1	4	9.525	3.18	0.4 0.8	11											●	●				● ●	●	●	●	●	●	F112
		SPMR	120304G 120308G	2	4	12.7	3.18	0.4 0.8	11											●	●				● ●	●	●	●	●	●	
Medium		SPMR	090304 090308	1	4	9.525	3.18	0.4 0.8	11	● ●	●	●					○ ○			● ●	●										
		SPMR	120304 120308	2	4	12.7	3.18	0.4 0.8	11	● ●	●	●					○ ○	●		● ●	●										
Finishing		SPGR	090304R 090304L 090308R 090308L	1	4	9.525	3.18	0.4 0.4 0.8 0.8	11																● ● ● ●	● ● ● ●	●	● ● ● ●	● ● ● ●	●		
		SPGR	120304R 120304L 120308R 120308L	2	4	12.7	3.18	0.4 0.4 0.8 0.8	11																● ● ● ●	● ● ● ●	●	● ● ● ●	● ● ● ●	●		
Cast iron	 Without chipbreaker	SPGN	090304 090308	-	4	9.525	3.18	0.4 0.8	11												● ●										
		SPGN	120304 120308	-	4	12.7	3.18	0.4 0.8	11												● ●		●								
		SPMN	120304 120308 120312	-	4	12.7	3.18	0.4 0.8 1.2	11				● ●	●	●	●						●		● ●		● ●	●	●	●		
		SPMN	120408 120412	-	4	12.7	4.76	0.8 1.2	11				● ●	●	●	●														

Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

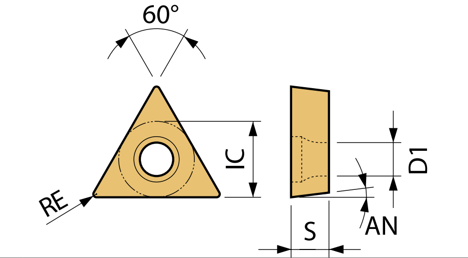
Applicable chipbreaker range

1	2
	

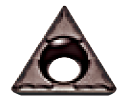
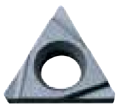
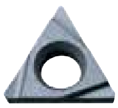
● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" ➡ See page B15

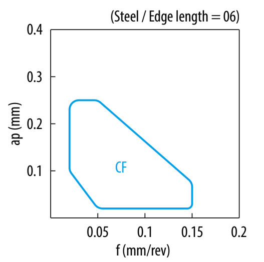
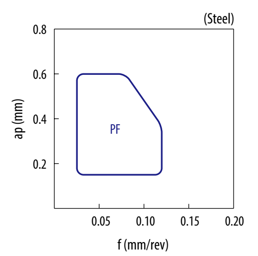
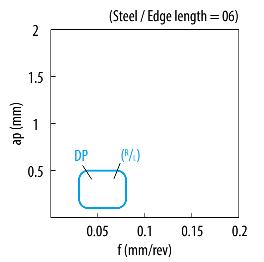


Work material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PR1225	PR1535	PR1705	PR1725	PR930	KW10	CCX	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel										◐											P
Carbon steel / Alloy steel	◌	○	◐	●			✱	◌			◐	◌		●	●	◐	◌		●	◐	P
Stainless steel								◌	◐		◌	◌									M
Gray cast iron													◌	●							K
Nodular cast iron														○							K
Non-ferrous metals													◐								N
Heat-resistant alloy									◐												S
Titanium alloy									◐				◌								S
Hard materials																					H

	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PR1225	PR1535	PR1705	PR1725	PR930	KW10	CCX	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
						Dimension (mm)				Angle (°)	Carbide CVD							Carbide PVD					Carbide -	Cermet CVD	Cermet PVD			Cermet -			
Minute ap	 Sharp edge	TBGT	060102CF	1	3	3.97	1.59	2.3	0.2	5												●									F33, F34 F80~F82 F86, F87
Minute ap	 Polished / Sharp edge	TBGT	060101MP-CF	1	3	3.97	1.59	2.3	< 0.1	5								●	●		●										
			060102MP-CF						< 0.2									●	●	●	●										
Finishing	 Polished / Sharp edge	TBGT	060101MFP-PF	2	3	3.97	1.59	2.3	< 0.1	5									●		●										
			060102MFP-PF						< 0.2										●		●										
			060104MFP-PF						< 0.4										●		●										
Finishing		TBMT	060102DP	3	3	3.97	1.59	2.3	0.2	5	●	●	●	●	○	○	●							●	●	●	●	●	●	●	
			060104DP						0.4		●	●	●	●	○	○	●							●	●	●	●	●	●	●	
Finishing		TBET	0601005MR	3	3	3.97	1.59	2.4	< 0.05	5									●		●										
			0601005ML						< 0.05										●		●										
			060101MR						< 0.1										●		●										
			060101ML						< 0.1										●		●										
			060102MR						< 0.2										●		●										
			060102ML						< 0.2										●	●	●										
			060104MR						< 0.4										●	●	●										
			060104ML						< 0.4										●	●	●										
Finishing		TBGT	0601003L	3	3	3.97	1.59	2.4	0.03	5												●									
			060101R						0.1													●	●								
			060101L						0.1													●	●					●			
			060102R						0.2													●	●		●	●	●	●	●	●	
			060102L						0.2													●	●		●	●	●	●	●	●	
			060104R						0.4													●	●		●	●	●	●	●	●	
			060104L						0.4													●	●		●	●	●	●	●	●	
Cast iron	 Without chipbreaker	TBGW	060102	-	3	3.97	1.59	2.4	0.2	5													●					●			
			060104						0.4														●					●			

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

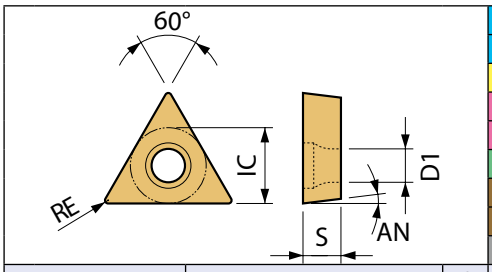
Applicable chipbreaker range

1	2	3
		

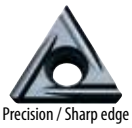
● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" See page B15

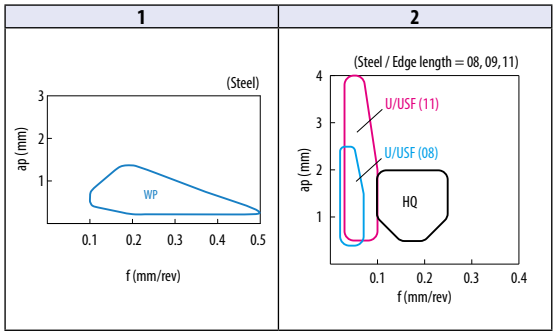


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4515	CA510	CA515	CA525	CA530	Carbide PVD PR1225	PR1725	PR930	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing	 With Wiper Edge	TCMX	090204WP	1	3	5.56	2.38	2.5	0.4	7	●	●	●					●	○	○	●	●	●			●	●			●	●	
		TCMX	110204WP	1	3	6.35	2.38	2.8	0.4	7	●	●	●					●	○	○	●	●	●			●	●			●	●	
Finishing - Medium		TCMT	090202HQ	2	3	5.56	2.38	2.5	0.2	7															●	●	●	●	●	●	●	F88 F89
			090204HQ						0.4																●	●	●	●	●	●	●	
		TCMT	110202HQ	2	3	6.35	2.38	2.8	0.2	7															●	●	●	●	●	●	●	
			110204HQ						0.4		●	●	●	●	●	●	●	●	○	○	●				●	●	●	●	●	●	●	
			110208HQ						0.8		●	●	●	●	●	●	●		○	○	●				●	●	●	●	●	●	●	
		TCMT	16T304HQ	2	3	9.525	3.97	4.4	0.4	7				●	●	●	●								●			●	●		●	-
			16T308HQ						0.8					●	●	●	●								●			●	●		●	
			16T312HQ						1.2					●	●	●	●								●							
Low feed	 Precision / Sharp edge	TCET	0802003FR-USF	2	3	4.76	2.38	2.5	0.03	7													●									E38
			0802003FL-USF						0.03														●									
			080201FR-USF						0.1														●									
			080202FR-USF						0.2														●									
		TCET	1103003FR-USF	2	3	6.35	3.18	2.8	0.03	7													●									
			1103003FL-USF						0.03														●									
			110301FR-USF						0.1														●									
			110301FL-USF						0.1														●									
			110302FR-USF						0.2														●									
			110302FL-USF						0.2														●									
		TCET	1103005MFR-USF	2	3	6.35	3.18	2.8	< 0.05	7													●									
			110301MFR-USF						< 0.1														●									
			110302MFR-USF						< 0.2														●									

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).
See "Precautions when using Wiper inserts" in the **R36** and **R37** for WP chipbreaker.

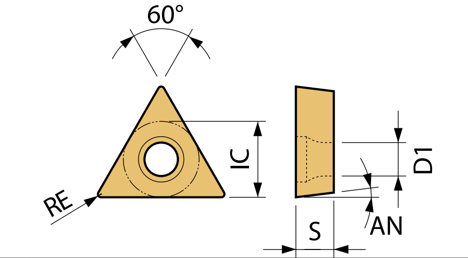
Applicable chipbreaker range



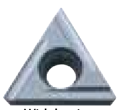
● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" ➡ See page B15



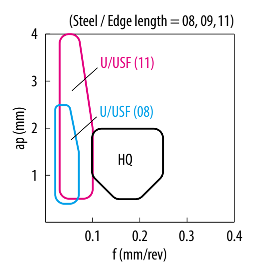
Work material	PR1225	PR1725	PR930	KW10	TN60	
Free-cutting steel						P
Carbon steel / Alloy steel	◔	●	◔			P
Stainless steel	◔	◔	◔			M
Gray cast iron				◔		K
Nodular cast iron						K
Non-ferrous metals				●		N
Heat-resistant alloy						S
Titanium alloy				◔		S
Hard materials						H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1725	PR930	Carbide - KW10	Cermet - TN60	Applicable toolholder
Low feed	 Sharp edge	TCGT	080201FR-U	1	3	4.76	2.38	2.5	0.1	7			●		●	E38
			080202FR-U						0.2				●	●	●	
			080202FL-U						0.2				●	●	●	
		TCGT	1103003FR-U	1	3	6.35	3.18	2.8	0.03	7			●	●		
			110301FR-U						0.1				●	●	●	
			110301FL-U						0.1					●		
			110302FR-U						0.2				●	●	●	
			110302FL-U						0.2				●	●	●	
		TCGT	080201MFR-U	1	3	4.76	2.38	2.5	< 0.1	7	●					
			080202MFR-U						< 0.2		●					
			080202MFL-U						< 0.2		●					
		TCGT	1103005MFR-U	1	3	6.35	3.18	2.8	< 0.05	7	●					
			1103005MFL-U						< 0.05		●					
			110301MFR-U						< 0.1		●					
			110301MFL-U						< 0.1		●					
			110302MFR-U						< 0.2		●					
			110302MFL-U						< 0.2		●					
			110304MFR-U						< 0.4		●					
			110304MFL-U						< 0.4		●					
Low feed	 With honing	TCGT	080202ER-U	1	3	4.76	2.38	2.5	0.2	7			●		●	
			080202EL-U										●		●	
		TCGT	110301ER-U	1	3	6.35	3.18	2.8	0.1	7					●	
			110302ER-U						0.2				●		●	
			110302EL-U						0.2				●		●	
			110304ER-U						0.4				●		●	
			110304EL-U						0.4				●		●	
		TCGT	080202MER-U	1	3	4.76	2.38	2.5	< 0.2	7		●				
		TCGT	110302MER-U	1	3	6.35	3.18	2.8	< 0.2	7		●				
			110302MEL-U						< 0.2			●				
			110304MER-U						< 0.4			●				

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

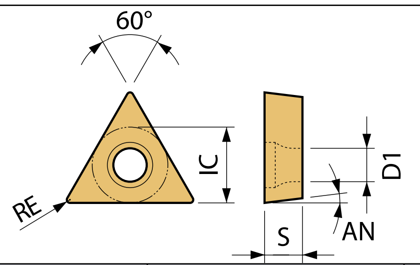
1



●: Standard item

60° Triangle

How to read pages of "Turning inserts" ➡ See page B15

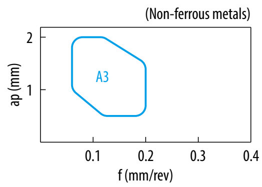


Work material	PDL010	PDL025	KW10	
Free-cutting steel				P
Carbon steel / Alloy steel				P
Stainless steel				M
Gray cast iron			○	K
Nodular cast iron				K
Non-ferrous metals	●	◓	◓	N
Heat-resistant alloy				S
Titanium alloy			○	S
Hard materials				H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	Carbide DLC PDL025	Carbide - KW10	Applicable toolholder
Non-ferrous metals	 Finishing - Medium / Sharp edge	TCGT	110302R-A3	1	3	6.35	3.18	2.8	0.2	7	●	●	●	E38
			110302L-A3						0.2		●	●	●	
			110304R-A3						0.4		●	●	●	
			110304L-A3						0.4		●	●	●	
			110308R-A3						0.8		●	●		
			110308L-A3						0.8		●	●		
Cast iron	 Without chipbreaker	TCGW	080201	-	3	4.76	2.38	2.5	0.1	7			●	
			080202						0.2				●	
		TCGW	110301	-	3	6.35	3.18	2.8	0.1	7			●	
			110302						0.2				●	
			110304						0.4				●	

Applicable chipbreaker range

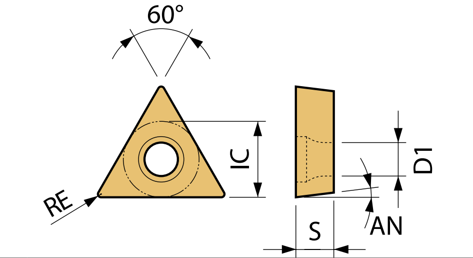
1



●: Standard item

60° Triangle

How to read pages of "Turning inserts" ➡ See page **B15**

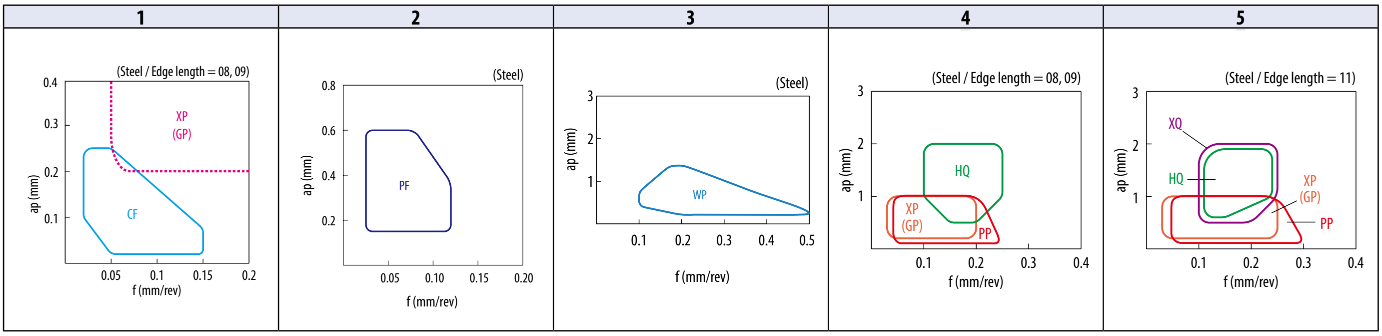


Work material	CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	PR1225	PR1535	PR1705	PR1725	PR930	CCX	PV710	PV720	PV730	TN610	TN620	
Free-cutting steel										◐									P
Carbon steel / Alloy steel	◔	○	◐	●			✖	◔			◐	◔	●	●	◐	◔	●	◐	P
Stainless steel								◔	◐		◔	◔							M
Gray cast iron													●						K
Nodular cast iron													○						K
Non-ferrous metals																			N
Heat-resistant alloy									◐										S
Titanium alloy									◐										S
Hard materials																			H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	Carbide PVD PR1225	PR1535	PR1705	PR1725	PR930	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN610	TN620	Applicable toolholder
Minute ap	 Sharp edge	TPGT	080202CF	1	3	4.76	2.38	2.3	0.2	11												●							E39 F80~F82 F86
Minute ap		TPGT	090202CF	1	3	5.56	2.38	2.8	0.2	11												●							F33, F34 F80~F82 F86
Minute ap	 Polished / Sharp edge	TPGT	080201MP-CF	1	3	4.76	2.38	2.3	< 0.1	11								●	●		●								E39 F80~F82 F86
			080202MP-CF						< 0.2									●	●	●	●								
Minute ap		TPGT	090201MP-CF	1	3	5.56	2.38	2.8	< 0.1	11								●	●		●								F33, F34 F80~F82 F86
			090202MP-CF						< 0.2									●	●	●	●								
Finishing	 Polished / Sharp edge	TPGT	090201MFP-PF	2	3	5.56	2.38	2.8	< 0.1	11									●		●								
			090202MFP-PF						< 0.2										●		●								
			090204MFP-PF						< 0.4										●		●								
Finishing	 With Wiper Edge	TPMX	090202WP	3	3	5.56	2.38	2.8	0.2	11	●	●	●	●	○	○	●				●			●	●		●	●	F33, F34 F80~F82
			090204WP						0.4		●	●	●	●	○	○	●	●			●			●	●		●	●	
			090208WP						0.8		●	●	●	●	○	○	●				●			●	●		●	●	
		TPMX	110302WP	3	3	6.35	3.18	3.3	0.2	11	●	●	●	●	○	○	●	●			●			●	●		●	●	F80~F82 F126
			110304WP						0.4		●	●	●	●	○	○	●	●			●			●	●		●	●	
			110308WP						0.8		●	●	●	●	○	○	●				●			●	●		●	●	
Finishing	 With Wiper Edge	TPMX	110304R-WP	3	3	6.35	3.18	3.3	0.4	11											●				●			●	
			110304L-WP																		●				●			●	
Finishing		TPMT	090202PP	4	3	5.56	2.38	2.8	0.2	11	●	●	●		○	○		●	●		●		●	●	●	●	●	●	F33, F34 F80~F82 F86
			090204PP						0.4		●	●	●	●	○	○	●	●	●		●		●	●	●	●	●	●	
		TPMT	110302PP	5	3	6.35	3.18	3.3	0.2	11	●	●	●		○	○		●	●		●		●	●	●	●	●	●	E39 F80~F82 F84, F85 F126
			110304PP						0.4		●	●	●	●	○	○	●	●	●		●		●	●	●	●	●	●	
			110308PP						0.8		●	●	●		○	○	●		●		●		●	●	●	●	●	●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).
See "Precautions when using Wiper inserts" in the **R36** and **R37** for WP chipbreaker.

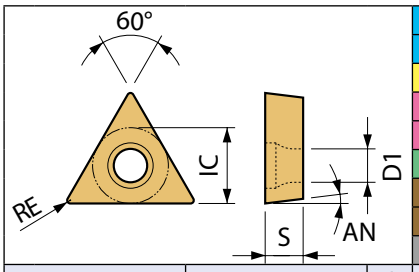
Applicable chipbreaker range



● : Standard item ○ : Will be replaced with a new product

60° Triangle

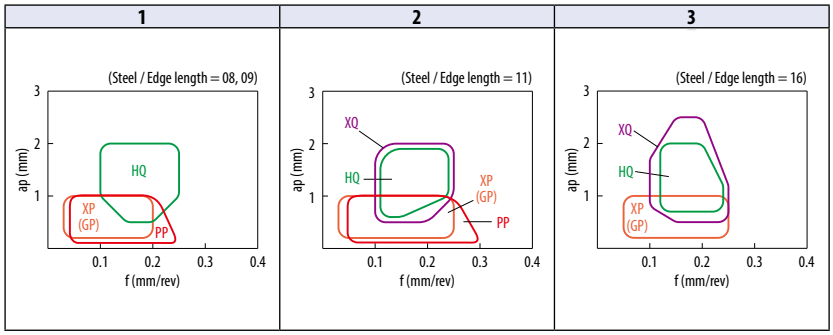
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1535	PR1725	PR930	Cermet CVD CCX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing		TPMT 090202GP 090204GP	1	3	5.56	2.38	2.8	0.2 0.4	11	● ●	● ●	● ●						○ ○	○ ○					● ●	● ●	● ●		● ●	● ●	● ●	● ●	● ●	● ●	● ●	F33, F34 F80~F82 F86
		TPMT 110304GP 110308GP	2	3	6.35	3.18	3.3	0.4 0.8	11	● ●	● ●	● ●						● ●	○ ○	○ ○				● ●	● ●	● ●		● ●	● ●	● ●	● ●	● ●	● ●	● ●	E39 F80~F82 F84, F85, F126
		TPMT 160304GP	3	3	9.525	3.18	4.7	0.4	11	●	●	●						●	○	○				●	●	●		●	●	●	●	●	●	●	F80~F82 F84, F126
Finishing - Medium		TPMT 090202HQ 090204HQ	1	3	5.56	2.38	2.8	0.2 0.4	11	● ●	● ●	● ●						● ●	○ ○	○ ○		● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	F33, F34 F80~F82 F86
		TPMT 110302HQ 110304HQ 110308HQ	2	3	6.35	3.18	3.3	0.2 0.4 0.8	11	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ ○	○ ○ ○	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	E39 F80~F82 F84, F85, F126
		TPMT 160302HQ 160304HQ 160308HQ	3	3	9.525	3.18	4.7	0.2 0.4 0.8	11	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●		● ● ●		○ ○ ○	○ ○ ○	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	F80~F82 F84, F126
Low carbon steel	 Finishing	TPMT 090204XP	1	3	5.56	2.38	2.8	0.4	11	●	●	●							○	○				●	●	●			●	●	●		●	●	F33, F34 F80~F82 F86
		TPMT 110304XP 110308XP	2	3	6.35	3.18	3.3	0.4 0.8	11	● ●	● ●	● ●						● ●	○ ○	○ ○	●			● ●	● ●	● ●	● ●		● ●	● ●	● ●		● ●	● ●	E39 F80~F82 F84, F85, F126
		TPMT 160304XP 160308XP	3	3	9.525	3.18	4.7	0.4 0.8	11	● ●	● ●	● ●						○ ○	○ ○	○ ○	●			● ●	● ●	● ●	● ●		● ●	● ●	● ●		● ●	● ●	F80~F82 F84, F126
Low carbon steel	 Finishing - Medium	TPMT 110304XQ 110308XQ	2	3	6.35	3.18	3.3	0.4 0.8	11	● ●	● ●	● ●						● ●	○ ○	○ ○	●						● ●		● ●	● ●	● ●		● ●	● ●	E39 F80~F82 F84, F85, F126
		TPMT 160304XQ 160308XQ	3	3	9.525	3.18	4.7 4.4	0.4 0.8	11	● ●	● ●	● ●						○ ○	○ ○	○ ○	●						● ●		● ●	● ●	● ●		● ●	● ●	F80~F82 F84, F126

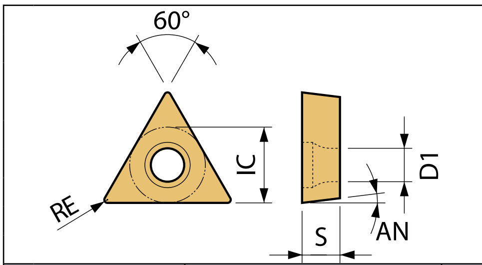
Applicable chipbreaker range



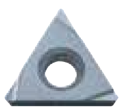
● : Standard item ○ : Will be replaced with a new product

60° Triangle

How to read pages of "Turning inserts" ➡ See page B15

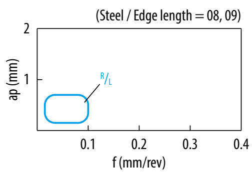


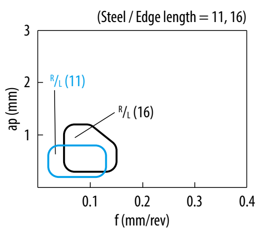
Work material	PR1535	PR1705	PR1725	PR930	KW10	PV7005	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel		◒											P
Carbon steel / Alloy steel			◒	◯			●	◒	◯		●	◒	P
Stainless steel	◒		◯	◯									M
Gray cast iron					◯	●							K
Nodular cast iron						○							K
Non-ferrous metals					◒								N
Heat-resistant alloy	◒												S
Titanium alloy	◒				◯								S
Hard materials													H

Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1535	PR1705	PR1725	PR930	- KW10	Cermet PVD PV7005	PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Finishing 	TPGH	080201R	1	3	4.76	2.38	2.3	0.1	11	●		●										E39 F80~F82 F86
		080201L						0.1		●		●	●	●					●			
		080202R						0.2		●	●	●	●	●			●	●	●		●	
		080202L						0.2		●	●	●	●	●		●	●	●	●	●	●	
		080204R						0.4		●	●	●	●	●			●	●	●		●	
		080204L						0.4		●	●	●	●	●	●	●	●	●	●	●	●	
	TPGH	090201R	1	3	5.56	2.38	3.2	0.1	11	●		●	●	●								F33, F34 F80~F82 F86
		090201L						0.1		●		●	●	●					●			
		090202R						0.2		●	●	●	●	●			●	●	●		●	
		090202L						0.2		●	●	●	●	●	●	●	●	●	●	●	●	
		090204R						0.4		●	●	●	●	●	●		●	●	●		●	
		090204L						0.4		●	●	●	●	●	●	●	●	●	●	●	●	
	TPGH	110202R	2	3	6.35	2.38	3.7	0.2	11	●		●	●									F84 F85
		110202L						0.2		●	●	●	●	●		●	●	●	●	●	●	
		110204R						0.4		●		●	●	●					●			
		110204L						0.4		●	●	●	●	●		●	●	●	●	●	●	
	TPGH	110302R	2	3	6.35	3.18	3.3	0.2	11	●	●	●	●	●			●	●	●		●	E39 F80~F82 F84, F85 F126
		110302L						0.2		●	●	●	●	●	●	●	●	●	●	●	●	
		110304R						0.4		●	●	●	●	●	●		●	●	●		●	
		110304L						0.4		●	●	●	●	●	●	●	●	●	●	●	●	
		110308R						0.8		●		●	●	●		●	●	●	●	●	●	
		110308L						0.8		●	●	●	●	●		●	●	●	●	●	●	
	TPGH	160302R	2	3	9.525	3.18	4.7	0.2	11	●		●	●	●		●	●	●	●	●	●	F80~F82 F84 F126
		160302L						0.2		●		●	●	●		●	●	●	●	●	●	
		160304R						0.4		●		●	●	●		●	●	●	●	●	●	
		160304L						0.4		●	●	●	●	●	●	●	●	●	●	●	●	
		160308R						0.8		●		●			●							
		160308L						0.8		●		●	●	●	●	●	●	●	●	●	●	

Applicable chipbreaker range

1	2

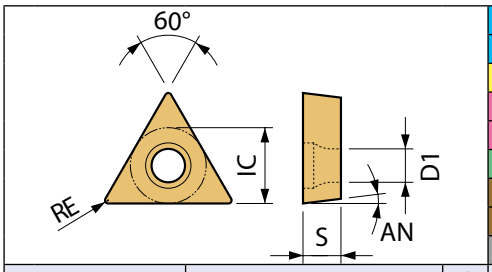




● : Standard item

60° Triangle

How to read pages of "Turning inserts" See page B15

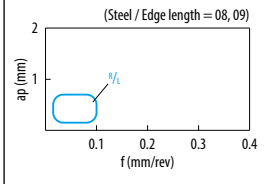
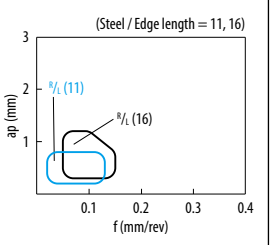


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1705	PR1725	Applicable toolholder
Finishing	TPGH	080201ML	1	3	4.76	2.38	2.3	< 0.1	11		●	E39 F80~F82 F86
		080202MR						< 0.2		●	●	
		080202ML						< 0.2		●	●	
		080204MR						< 0.4		●	●	
		080204ML						< 0.4		●	●	
	TPGH	090201ML	1	3	5.56	2.38	3.2	< 0.1	11		●	F33, F34 F80~F82 F86
		090202MR						< 0.2			●	
		090202ML						< 0.2		●	●	
		090204MR						< 0.4		●	●	
		090204ML						< 0.4		●	●	
	TPGH	110202ML	2	3	6.35	2.38	3.7	< 0.2	11	●		F84 F85
		110204ML						< 0.4			●	
	TPGH	110302MR	2	3	6.35	3.18	3.3	< 0.2	11	●	●	E39 F80~F82 F84, F85 F126
		110302ML						< 0.2		●	●	
		110304MR						< 0.4		●	●	
		110304ML						< 0.4		●	●	
		110308ML						< 0.8		●	●	
	TPGH	160302ML	2	3	9.525	3.18	4.7	< 0.2	11		●	F80~F82 F84 F126
		160304MR						< 0.4			●	
		160304ML						< 0.4		●	●	
		160308ML						< 0.8			●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

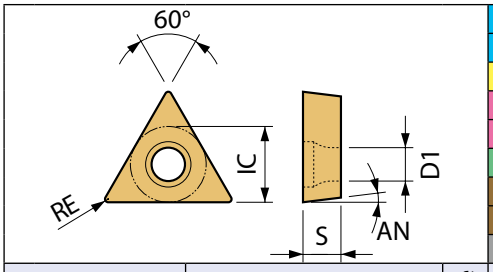
Applicable chipbreaker range

1	2
	

● : Standard item

60° Triangle

How to read pages of "Turning inserts" See page B15

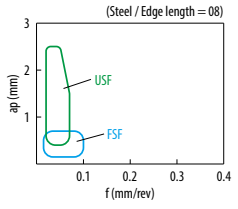
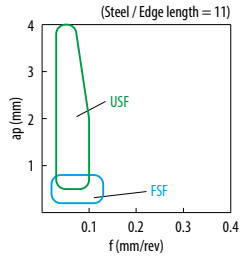
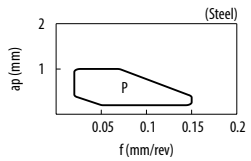


	P	M	K	N	S	H
Free-cutting steel						
Carbon steel / Alloy steel	●	○	○			
Stainless steel	●	○	○			
Gray cast iron						
Nodular cast iron						
Non-ferrous metals						
Heat-resistant alloy	●					
Titanium alloy	●					
Hard materials						

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1535	PVD PR1725	PVD PR930	Cermet - TN60	Applicable toolholder
Finishing	Precision / Sharp edge	TPET	0802003L-FSF	1	3	4.76	2.38	2.3	0.03	11			●		E39 F80~F82 F86
			080201R-FSF						0.1				●		
			080201L-FSF						0.1				●		
			080202R-FSF						0.2				●		
			080202L-FSF						0.2			●	●	●	
		TPET	1103003R-FSF	2	3	6.35	3.18	3.3	0.03	11			●		E39 F80~F82 F84, F85 F126
			1103003L-FSF						0.03				●		
			1103005L-FSF						0.05			●			
			110301R-FSF						0.1			●	●	●	
			110301L-FSF						0.1			●	●	●	
			110302R-FSF						0.2			●	●	●	
			110302L-FSF						0.2			●	●	●	
		TPET	080202ML-FSF	1	3	4.76	2.38	2.3	< 0.2	11		●			E39 F80~F82, F86
		TPET	1103005ML-FSF	2	3	6.35	3.18	3.3	< 0.05	11		●			E39 F80~F82 F84, F85 F126
			110301MR-FSF						< 0.1			●			
			110301ML-FSF						< 0.1			●			
			110302MR-FSF						< 0.2			●			
			110302ML-FSF						< 0.2			●			
Finishing	Sharp edge	TPEH	080201MR-P	3	3	4.76	2.38	2.3	< 0.1	11	●	●			E39 F80~F82 F86
			080201ML-P						< 0.1		●	●			
			080202MR-P						< 0.2		●	●			
			080202ML-P						< 0.2		●	●			
			080204MR-P						< 0.4		●	●			
			080204ML-P						< 0.4		●	●			
		TPEH	090201MR-P	3	3	5.56	2.38	3.2	< 0.1	11	●	●			F33, F34 F80~F82 F86
			090201ML-P						< 0.1		●	●			
			090202MR-P						< 0.2		●	●			
			090202ML-P						< 0.2		●	●			
			090204MR-P						< 0.4		●	●			
			090204ML-P						< 0.4		●	●			
		TPEH	110301MR-P	3	3	6.35	3.18	3.3	< 0.1	11	●	●			E39 F80~F82 F84, F85 F126
			110301ML-P						< 0.1		●	●			
			110302MR-P						< 0.2		●	●			
			110302ML-P						< 0.2		●	●			
			110304MR-P						< 0.4		●	●			
			110304ML-P						< 0.4		●	●			

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

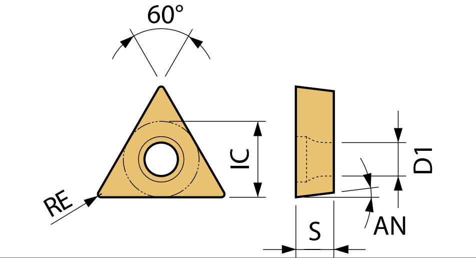
Applicable chipbreaker range

1	2	3
		

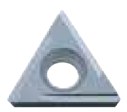
● : Standard item

60° Triangle

How to read pages of "Turning inserts" ➡ See page B15



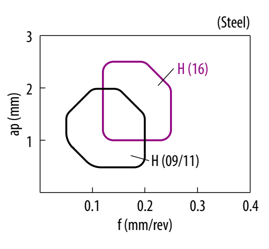
Work material		PR1535	PR1725	PR930	KW10	PV710	PV720	PV730	TN60	TN610	TN620
P	Free-cutting steel										
P	Carbon steel / Alloy steel		◐	○		●	◐	○		●	◐
M	Stainless steel	◐	○	○							
K	Gray cast iron				○						
K	Nodular cast iron										
N	Non-ferrous metals				◐						
S	Heat-resistant alloy	◐									
S	Titanium alloy	◐			○						
H	Hard materials										

Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN (°)	PR1535 (Carbide PVD)	PR1725 (Carbide PVD)	PR930 (Carbide PVD)	KW10 (Carbide -)	PV710 (Cermet PVD)	PV720 (Cermet PVD)	PV730 (Cermet PVD)	TN60 (Cermet -)	TN610 (Cermet -)	TN620 (Cermet -)	Applicable toolholder
Medium 	TPGH	090201L-H	1	3	5.56	2.38	3.2	0.1	11	●	●									F33, F34 F80~F82 F86
		090202L-H						0.2		●	●									
		090204L-H						0.4		●	●									
	TPGH	110302R-H	1	3	6.35	3.18	3.3	0.2	11	●	●	●					●			E39 F80~F82 F84, F85 F126
		110302L-H						0.2		●	●	●	●	●	●	●	●	●	●	
		110304R-H						0.4		●	●	●	●		●	●	●		●	
		110304L-H						0.4		●	●	●	●	●	●	●	●	●	●	
		110308R-H						0.8		●	●	●					●			
		110308L-H						0.8		●	●	●	●	●	●	●	●	●	●	
	TPGH	160304R-H	1	3	9.525	3.18	4.7	0.4	11	●	●	●					●			F80~F82 F84 F126
		160304L-H						0.4		●	●	●	●	●	●	●	●	●	●	
		160308R-H						0.8		●	●	●								
		160308L-H						0.8		●	●	●					●			
	TPGT	160402L-H	1	3	9.525	4.76	4.5	0.2	11					●	●	●	●	●	●	-
		160404L-H						0.4						●	●	●	●	●	●	
		160408L-H						0.8									●			
	TPGH	110302ML-H	1	3	6.35	3.18	3.3	< 0.2	11		●									E39 F80~F82 F84, F85 F126
		110304ML-H						< 0.4			●									
	TPGH	160304ML-H	1	3	9.525	3.18	4.7	< 0.4	11		●									F80~F82 F84 F126

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

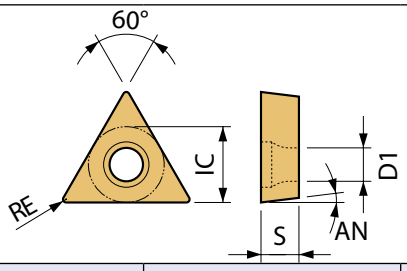
1



●: Standard item

60° Triangle

How to read pages of "Turning inserts" See page B15

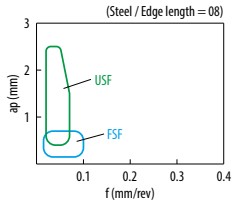
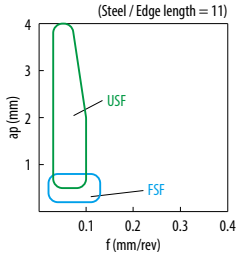
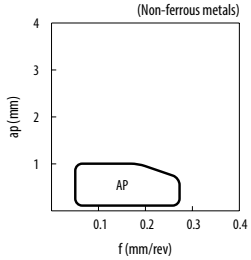


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	Carbide PVD PR1725	Carbide PVD PR930	Carbide - KW10	Cermet PVD PV7005	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
Low feed	Precision / Sharp edge	TPET	080201FL-USF	1	3	4.76	2.38	2.3	0.1	11			●									E39
		TPET	080202FR-USF	1	3	4.76	2.38	2.3	0.2	11		●	●						●			F80~F82
		TPET	080202FL-USF	1	3	4.76	2.38	2.3	0.2	11		●	●						●			F86
		TPET	110301FR-USF	2	3	6.35	3.18	3.3	0.1	11			●									E39
		TPET	110301FL-USF	2	3	6.35	3.18	3.3	0.1	11		●	●						●			F80~F82
		TPET	110302FR-USF	2	3	6.35	3.18	3.3	0.2	11		●	●						●			F84, F85, F126
		TPET	110302FL-USF	2	3	6.35	3.18	3.3	0.2	11		●	●						●			
		TPET	080202MFR-USF	1	3	4.76	2.38	2.3	< 0.2	11		●										E39
		TPET	080202MFL-USF	1	3	4.76	2.38	2.3	< 0.2	11		●										F80~F82
		TPET	110301MFL-USF	2	3	6.35	3.18	3.3	< 0.1	11		●										F86
		TPET	110302MFR-USF	2	3	6.35	3.18	3.3	< 0.2	11		●										E39
		TPET	110302MFL-USF	2	3	6.35	3.18	3.3	< 0.2	11		●										F80~F82
Non-ferrous metals	Finishing / Sharp edge	TPGT	090202AP	3	3	5.56	2.38	2.8	0.2	11	●			●								F84, F85, F126
		TPGT	090204AP	3	3	5.56	2.38	2.8	0.4	11	●			●								F33, F34
		TPGT	090208AP	3	3	5.56	2.38	2.8	0.8	11	●			●								F80~F82
		TPGT	110302AP	3	3	6.35	3.18	3.3	0.2	11	●			●								F86
		TPGT	110304AP	3	3	6.35	3.18	3.3	0.4	11	●			●								E39
		TPGT	110308AP	3	3	6.35	3.18	3.3	0.8	11	●			●								F80~F82
Cast iron	Without chipbreaker	TPGB	080202	-	3	4.76	2.38	2.3	0.2	11				●					●			F84, F85, F126
		TPGB	080204	-	3	4.76	2.38	2.3	0.4	11				●	●		●	●	●		●	F86
		TPGB	080208	-	3	4.76	2.38	2.3	0.8	11				●					●			
		TPGB	090202	-	3	5.56	2.38	3.2	0.2	11				●					●			F33, F34
		TPGB	090204	-	3	5.56	2.38	3.2	0.4	11				●	●		●	●	●		●	F80~F82
		TPGB	1102005	-	3	6.35	2.38	3.7	0.05	11				●					●			F86
		TPGB	110201	-	3	6.35	2.38	3.7	0.1	11				●					●			
		TPGB	110202	-	3	6.35	2.38	3.7	0.2	11				●					●			F84
		TPGB	110204	-	3	6.35	2.38	3.7	0.4	11				●		●	●	●	●	●	●	F85
		TPGB	1103005	-	3	6.35	3.18	3.3	0.05	11				●					●			
		TPGB	110301	-	3	6.35	3.18	3.3	0.1	11				●					●			
		TPGB	110302	-	3	6.35	3.18	3.3	0.2	11				●		●	●	●	●	●	●	E39
		TPGB	110304	-	3	6.35	3.18	3.3	0.4	11				●	●	●	●	●	●	●	●	F80~F82
		TPGB	110308	-	3	6.35	3.18	3.3	0.8	11				●	●	●	●	●	●	●	●	F84, F85, F126
		TPGB	160304	-	3	9.525	3.18	4.7	0.4	11				●	●	●	●	●	●	●	●	F80~F82
		TPGB	160308	-	3	9.525	3.18	4.7	0.8	11				●		●	●	●	●	●	●	F84, F126

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

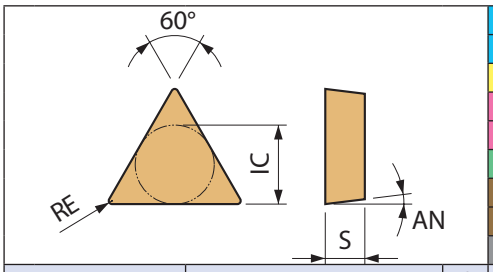
Applicable chipbreaker range

1	2	3
		

● : Standard item

60° Triangle

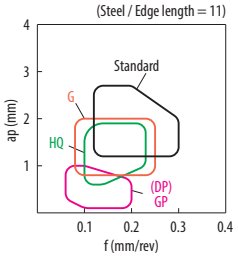
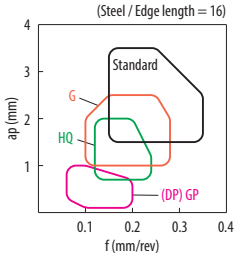
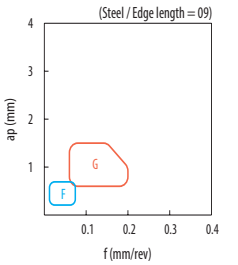
How to read pages of "Turning inserts" See page B15



Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description	Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA310	CA315	CA320	CA4505	CA4515	CA510	CA515	CA525	CA530	CA6525	Carbide PVD PR1535	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing		TPMR 110304DP 110308DP	1	3	6.35	3.18	0.4 0.8	11																			● ●			F113
		TPMR 160304DP 160308DP	2	3	9.525	3.18	0.4 0.8	11																			● ●			
Finishing		TPMR 110304GP	1	3	6.35	3.18	0.4	11																●	●	●			●	
		TPMR 160304GP	2	3	9.525	3.18	0.4	11	●	●	●						○	○	●					●	●				●	
Finishing - Medium		TPMR 110304HQ 110308HQ	1	3	6.35	3.18	0.4 0.8	11	● ●	● ●	● ●						○ ○	○ ○	● ●	● ●	● ●			● ●	● ●	● ●			● ●	
		TPMR 160304HQ 160308HQ	2	3	9.525	3.18	0.4 0.8	11	● ●	● ●	● ●					●	○ ○	○ ○	● ●	● ●	● ●			● ●	● ●	● ●	● ●	● ●	● ●	
Medium		TPMR 090202G 090204G	3	3	5.56	2.38	0.2 0.4	11																			● ●			
		TPMR 110304G 110308G	1	3	6.35	3.18	0.4 0.8	11																●	●	●	●		●	
		TPMR 160304G 160308G	2	3	9.525	3.18	0.4 0.8	11																● ●	● ●	● ●	● ●		● ●	
Medium		TPMR 110304 110308	1	3	6.35	3.18	0.4 0.8	11	● ●	● ●	● ●	● ●	● ●	● ●	● ●	●	○ ○	○ ○	● ●	● ●	● ●			● ●	● ●			● ●	● ●	
		TPMR 160304 160308	2	3	9.525	3.18	0.4 0.8	11	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	○ ○	○ ○	● ●	● ●	● ●		● ●	● ●	● ●	● ●		● ●	● ●	

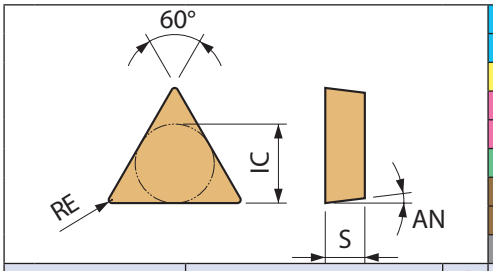
Applicable chipbreaker range

1	2	3
		

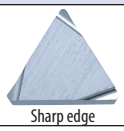
● : Standard item ○ : Will be replaced with a new product

60° Triangle

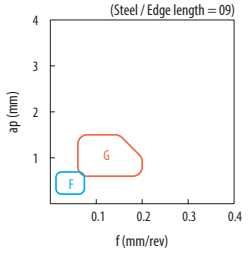
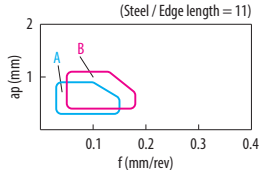
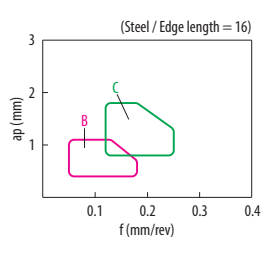
How to read pages of "Turning inserts" See page B15



Free-cutting steel		P
Carbon steel / Alloy steel		P
Stainless steel		M
Gray cast iron		K
Nodular cast iron		K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	RE	Angle (°) AN	Carbide CVD CA310	CA315	CA320	CA4505	CA4515	Carbide - KW10	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing	 Sharp edge	TPGR	090202L-F	1	3	5.56	2.38	0.2	11											●			F113
			090204R-F					0.4												●			
			090204L-F					0.4												●			
Finishing		TPGR	110302R-A	2	3	6.35	3.18	0.2	11											●			
			110302L-A					0.2								●	●	●		●	●	●	
			110304R-A					0.4							●					●			
			110304L-A					0.4							●	●	●	●		●	●	●	
Finishing - Medium		TPGR	110304R-B	2	3	6.35	3.18	0.4	11											●			
			110304L-B					0.4								●	●	●		●	●	●	
			110308R-B					0.8												●			
			110308L-B					0.8								●	●	●		●	●	●	
		TPGR	160302R-B	3	3	9.525	3.18	0.2	11							●	●	●		●	●	●	
			160302L-B					0.2								●	●	●		●	●	●	
			160304R-B					0.4							●	●	●	●		●	●	●	
			160304L-B					0.4							●	●	●	●		●	●	●	
			160308R-B					0.8							●	●	●	●		●	●	●	
			160308L-B					0.8							●	●	●	●		●	●	●	
Medium		TPGR	160304R-C	3	3	9.525	3.18	0.4	11							●	●	●		●	●	●	
			160304L-C					0.4								●	●	●		●	●	●	
			160308R-C					0.8								●	●	●		●	●	●	
			160308L-C					0.8								●	●	●		●	●	●	
Cast iron	 Without chipbreaker	TPGN	090202	-	3	5.56	2.38	0.2	11						●								
			090204					0.4							●					●			
		TPGN	110302	-	3	6.35	3.18	0.2	11						●								
			110304					0.4							●	●	●	●		●	●	●	
			110308					0.8							●	●	●	●		●	●	●	
		TPGN	160304	-	3	9.525	3.18	0.4	11						●	●	●	●		●	●	●	
			160308					0.8							●	●	●	●		●	●	●	
		TPMN	110304	-	3	6.35	3.18	0.4	11	●	●	●		●	●								
			110308					0.8		●	●	●	●	●	●								
		TPMN	160304	-	3	9.525	3.18	0.4	11	●	●	●		●	●								
			160308					0.8		●	●	●		●	●	●							
			160312					1.2		●	●	●		●									

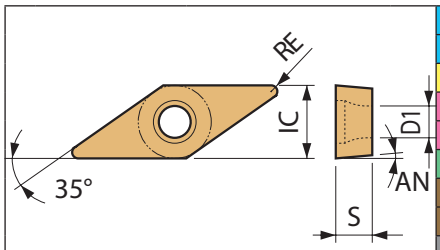
Applicable chipbreaker range

1	2	3
		

● : Standard item

35° Rhombic

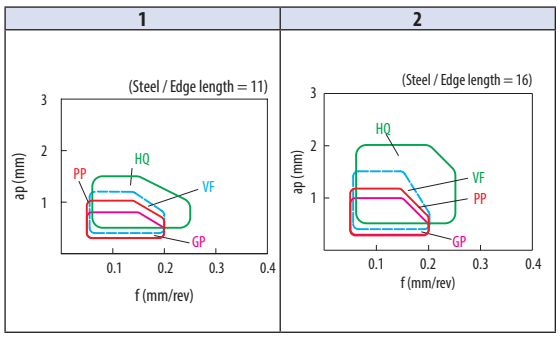
How to read pages of "Turning inserts" See page B15



Free-cutting steel		P
Carbon steel / Alloy steel		P
Stainless steel		M
Gray cast iron		K
Nodular cast iron		K
Non-ferrous metals		N
Heat-resistant alloy		S
Titanium alloy		S
Hard materials		H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1225	PR1535	PR1725	PR930	Cermet CVD COX	Cermet PVD PV7005	PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing		VBMT	110302PP 110304PP 110308PP	1	2	6.35	3.18	2.8	0.2 0.4 0.8	5	●	●	●	●	○	○	●			●	●	●	●	●		●	●	●		●	●	E40~E43 E58 F90, F91 F94~F99, F127
		VBMT	160404PP 160408PP 160412PP	2	2	9.525	4.76	4.4	0.4 0.8 1.2	5	●	●	●	●	○	○	●			●	●	●	●	●		●	●	●		●	●	E41~E43 F90, F91 F94~F99, F127
Finishing		VBMT	110304GP	1	2	6.35	3.18	2.8	0.4	5	●	●	●	●	○	○	●			●	●	●				●	●	●	●	●	●	E40~E43 E58 F90, F91 F94~F99, F127
		VBMT	160404GP 160408GP	2	2	9.525	4.76	4.4	0.4 0.8	5	●	●	●	○	○	●					●	●			●	●	●	●	●	●	●	E41~E43 F90, F91 F94~F99, F127
Finishing		VBMT	110302VF 110304VF 110308VF	1	2	6.35	3.18	2.8	0.2 0.4 0.8	5	●	●	●	●	○	○				●	●	●	●	●		●	●	●		●	●	E40~E43 E58 F90, F91 F94~F99, F127
		VBMT	160402VF 160404VF 160408VF 160412VF	2	2	9.525	4.76	4.4	0.2 0.4 0.8 1.2	5	●	●	●	●	○	○	●				●	●	●	●		●	●	●		●	●	E41~E43 F90, F91 F94~F99, F127
Finishing - Medium		VBMT	110304HQ 110308HQ	1	2	6.35	3.18	2.8	0.4 0.8	5	●	●	●	●	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	E40~E43 E58 F90, F91 F94~F99, F127
		VBMT	160404HQ 160408HQ 160412HQ	2	2	9.525	4.76	4.4	0.4 0.8 1.2	5	●	●	●	●	○	○	●	●	●		●	●	●	●	●	●	●	●	●	●	●	E41~E43 F90, F91 F94~F99, F127

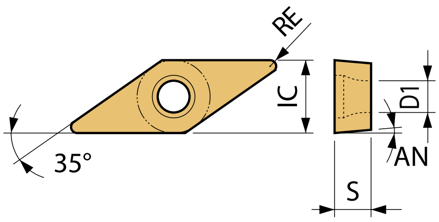
Applicable chipbreaker range



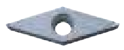
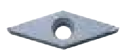
● : Standard item ○ : Will be replaced with a new product

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



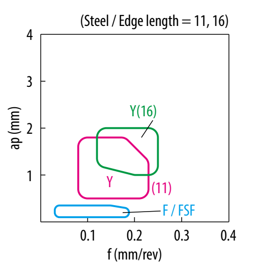
Work material	PR1225	PR1535	PR1705	PR1725	PR930	KW10	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel			◒										P
Carbon steel / Alloy steel	○			◒	○		●	◒	○		●	◒	P
Stainless steel	○	◒		○	○								M
Gray cast iron						○							K
Nodular cast iron													K
Non-ferrous metals						◒							N
Heat-resistant alloy		◒											S
Titanium alloy		◒				○							S
Hard materials													H

	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN	PR1225	PR1535	PR1705	PR1725	PR930	KW10	PV710	PV720	PV730	TN60	TN610	TN620	Applicable toolholder
						Dimension (mm)				Angle (°)	Carbide						Cermet						
											PVD					-	PVD			-			
Finishing	 Precision / Sharp edge	VBET	1103003R-FSF	1	2	6.35	3.18	2.8	0.03	5					●					●			E40~E43 E58 F90, F91 F94~F99 F127
			1103003L-FSF						0.03						●								
			110301R-FSF						0.1						●					●			
			110301L-FSF						0.1						●					●			
			110302R-FSF						0.2						●					●			
			110302L-FSF						0.2						●					●			
		VBET	1103005MR-FSF	1	2	6.35	3.18	2.8	< 0.05	5	●												
			1103005ML-FSF						< 0.05		●												
			110301MR-FSF						< 0.1		●												
			110301ML-FSF						< 0.1		●												
			110302MR-FSF						< 0.2		●												
			110302ML-FSF						< 0.2		●												
Finishing	 Sharp edge	VBET	1103005MR-F	1	2	6.35	3.18	2.8	< 0.05	5		●		●									
			1103005ML-F						< 0.05			●		●									
			110301MR-F						< 0.1			●	●	●				●	●			●	
			110301ML-F						< 0.1			●		●				●	●			●	
			110302MR-F						< 0.2			●	●	●			●	●	●		●	●	
			110302ML-F						< 0.2			●	●	●			●	●	●		●	●	
Finishing	 Sharp edge	VBGT	1103003R-F	1	2	6.35	3.18	2.8	0.03	5					●	●							
			1103003L-F						0.03						●								
			110301R-F						0.1						●	●		●	●	●		●	
			110301L-F						0.1						●	●				●			
			110302R-F						0.2						●	●		●	●	●		●	
			110302L-F						0.2						●	●				●			
		VBGT	1103005MR-F	1	2	6.35	3.18	2.8	< 0.05	5	●												
			1103005ML-F						< 0.05		●												
			110301MR-F						< 0.1		●												
			110301ML-F						< 0.1		●												
			110302MR-F						< 0.2		●												
			110302ML-F						< 0.2		●												

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

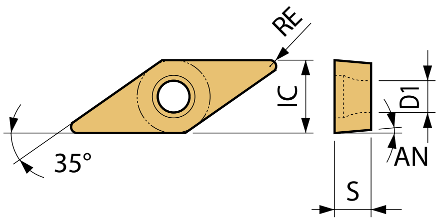
1



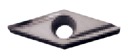
● : Standard item

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



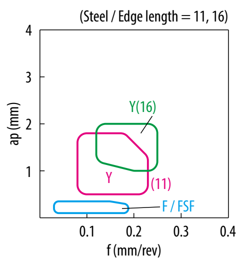
Work material		PR1225	PR1535	PR1705	PR1725	PR930	KW10	PV710	PV720	PV730	TN60	TN610	TN620
P	Free-cutting steel			◑									
P	Carbon steel / Alloy steel	○			◑	○		●	◑	○		●	◑
M	Stainless steel	○	◑		○	○							
K	Gray cast iron						○						
K	Nodular cast iron												
N	Non-ferrous metals						◑						
S	Heat-resistant alloy		◑										
S	Titanium alloy		◑				○						
H	Hard materials												

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1535	PR1705	PR1725	PR930	Carbide - KW10	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Finishing - Medium	 Sharp edge	VBET	1103005MR-Y	1	2	6.35	3.18	2.8	< 0.05	5		●		●									E40~E43, E58, F90, F91, F94~F99, F127
			1103005ML-Y						< 0.05			●		●									
			110301MR-Y						< 0.1			●		●									
			110301ML-Y						< 0.1			●		●									
			110302MR-Y						< 0.2			●		●			●	●	●		●	●	
			110302ML-Y						< 0.2			●		●			●	●	●		●	●	
			110304MR-Y						< 0.4			●		●			●	●	●		●	●	
			110304ML-Y						< 0.4			●		●			●	●	●		●	●	
Finishing - Medium	 Sharp edge	VBGT	1103003R-Y	1	2	6.35	3.18	2.8	0.03	5					●	●							E40~E43, E58, F90, F91, F94~F99, F127
			1103003L-Y						0.03						●								
			110301R-Y						0.1						●	●		●	●	●		●	
			110301L-Y						0.1						●	●				●			
			110302R-Y						0.2						●	●		●	●	●		●	
			110302L-Y						0.2						●	●		●	●	●		●	
			110304R-Y						0.4						●	●		●	●	●		●	
			110304L-Y						0.4						●	●		●	●	●		●	
			110308R-Y						0.8						●	●				●			
			110308L-Y						0.8						●	●				●			
		VBGT	160402R-Y	1	2	9.525	4.76	4.4	0.2	5					●	●	●	●	●	●	●	●	E41~E43, F90, F91, F94~F99, F127
			160402L-Y						0.2						●	●	●	●	●	●	●	●	
			160404R-Y						0.4						●	●	●	●	●	●	●	●	
			160404L-Y						0.4						●	●	●	●	●	●	●	●	
			160408R-Y						0.8						●	●				●			
			160408L-Y						0.8						●	●				●			
		VBGT	1103005MR-Y	1	2	6.35	3.18	2.8	< 0.05	5	●		●										E40~E43, E58, F90, F91, F94~F99, F127
			1103005ML-Y						< 0.05		●												
			110301MR-Y						< 0.1		●		●										
			110301ML-Y						< 0.1		●												
			110302MR-Y						< 0.2		●		●										
			110302ML-Y						< 0.2		●		●										
			110304MR-Y						< 0.4		●		●										
			110304ML-Y						< 0.4		●		●										
			110308MR-Y						< 0.8		●												
			110308ML-Y						< 0.8		●												
		VBGT	160402MR-Y	1	2	9.525	4.76	4.4	< 0.2	5	●		●										E41~E43, F90, F91, F94~F99, F127
			160402ML-Y						< 0.2		●												
			160404MR-Y						< 0.4		●		●										
			160404ML-Y						< 0.4		●												
			160408MR-Y						< 0.8		●												
			160408ML-Y						< 0.8		●												

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

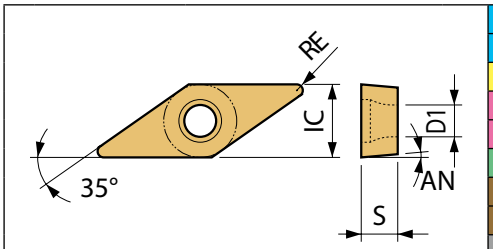
1

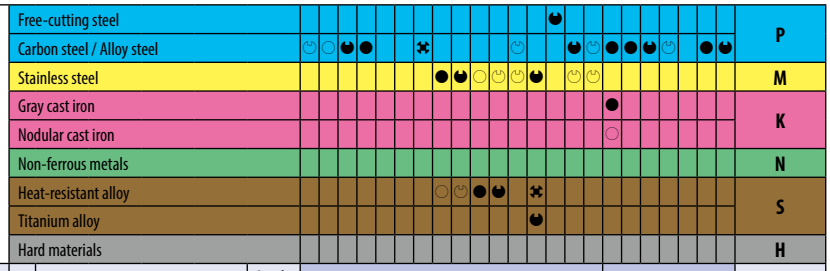


● : Standard item

35° Rhombic

How to read pages of "Turning inserts" See page B15

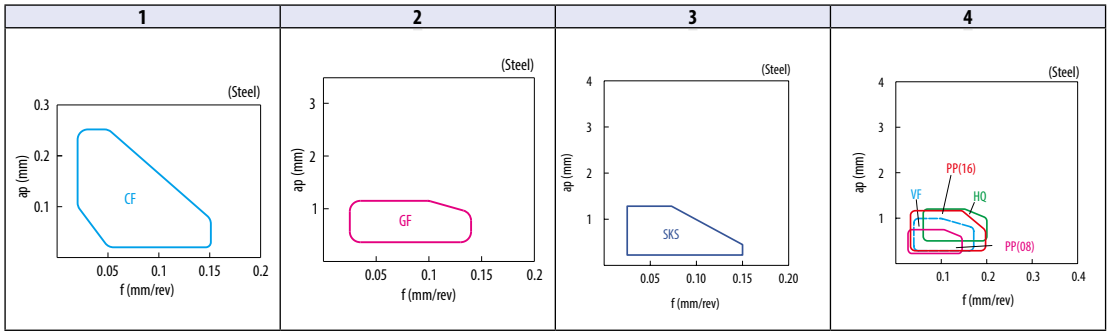




Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	CA6515	CA6525	Carbide PVD PR1155	PR1205	PR1225	PR1535	PR1705	PR1725	PR930	Cermet CVD CCX	PVD PV710	PV720	PV730	- TN60	TN610	TN620	Applicable toolholder
Minute ap	 Polished / Sharp edge	VCGT	110301MP-CF 110302MP-CF	1	2	6.35	3.18	2.8	< 0.1 < 0.2	7													●	●										
Finishing	 Polished / Sharp edge	VCGT	110301MFP-GF 110302MFP-GF	2	2	6.35	3.18	2.8	< 0.1 < 0.2	7													● ● ● ●	●										E44~E46 E59
Finishing	 Polished / Sharp Edge	VCGT	110301MFP-SKS 110302MFP-SKS 110304MFP-SKS	3	2	6.35	3.18	2.8	< 0.1 < 0.2 < 0.4	7										● ● ● ● ● ●			● ● ● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ●									
Finishing		VCMT	080202PP 080204PP	4	2	4.76	2.38	2.3	0.2 0.4	7	● ● ● ●	● ● ● ●	● ● ● ●	○ ● ○ ●	○ ● ○ ●	○ ● ○ ●	● ● ● ●					● ● ● ●		● ● ● ●			● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	E59 F90, F91 F94~F99
		VCMT	160404PP 160408PP	4	2	9.525	4.76	4.4	0.4 0.8	7	● ● ● ●	● ● ● ●	● ● ● ●	○ ● ○ ●	○ ● ○ ●	○ ● ○ ●	● ● ● ●					● ● ● ●		● ● ● ●			● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	-
Finishing		VCMT	080202VF 080204VF	4	2	4.76	2.38	2.3	0.2 0.4	7	● ● ● ●	● ● ● ●	● ● ● ●	○ ● ○ ●	○ ● ○ ●	○ ● ○ ●	● ● ● ●					● ● ● ●		● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	E59 F90, F91 F94~F99
Finishing - Medium		VCMT	080202HQ 080204HQ	4	2	4.76	2.38	2.3	0.2 0.4	7	● ● ● ●	● ● ● ●	● ● ● ●	○ ● ○ ●	○ ● ○ ●	○ ● ○ ●	● ● ● ●	● ● ● ●	● ● ● ●			● ● ● ●		● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●		● ● ● ●	● ● ● ●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

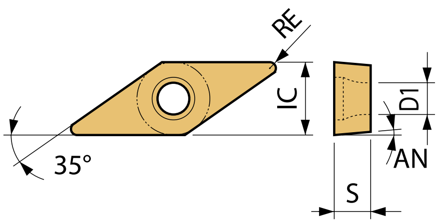
Applicable chipbreaker range



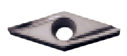
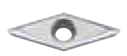
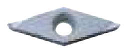
● : Standard item ○ : Will be replaced with a new product

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

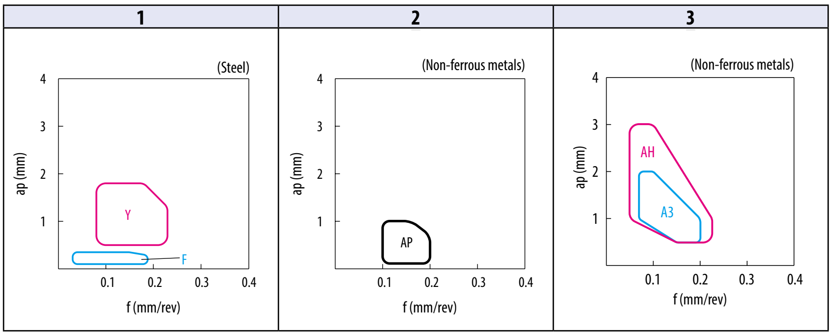


Work material	PDL010	PDL025	PR1535	PR1725	KW10	ISO
Free-cutting steel						P
Carbon steel / Alloy steel				●		P
Stainless steel			●	○		M
Gray cast iron					○	K
Nodular cast iron						K
Non-ferrous metals	●	●			●	N
Heat-resistant alloy			●			S
Titanium alloy			●		○	S
Hard materials						H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1535	PVD PR1725	- KW10	Applicable toolholder
Finishing		VCET	110301MR-F	1	2	6.35	3.18	2.8	< 0.1	7			●	●		E44~E46 E59
			110301ML-F						< 0.1				●	●		
			110302MR-F						< 0.2				●	●		
			110302ML-F						< 0.2				●	●		
			110304MR-F						< 0.4				●	●		
			110304ML-F						< 0.4				●	●		
Finishing - Medium	 Sharp edge	VCET	1103005MR-Y	1	2	6.35	3.18	2.8	< 0.05	7			●	●		
			1103005ML-Y						< 0.05				●	●		
			110301MR-Y						< 0.1				●	●		
			110301ML-Y						< 0.1				●	●		
			110302MR-Y						< 0.2				●	●		
			110302ML-Y						< 0.2				●	●		
			110304MR-Y						< 0.4				●	●		
			110304ML-Y						< 0.4				●	●		
Non-ferrous metals	 Finishing / Sharp edge	VCGT	160404AP	2	2	9.525	4.76	4.4	0.4	7	●				●	E41~E43 F90, F91 F94~F99 F127
Non-ferrous metals	 Finishing - Medium / Sharp edge	VCGT	160404R-A3	3	2	9.525	4.76	4.4	0.4	7	●	●			●	
			160404L-A3						0.4		●	●			●	
			160408R-A3						0.8		●	●			●	
			160408L-A3						0.8		●	●			●	
Non-ferrous metals	 Finishing - Medium / Sharp edge	VCGT	160404AH	3	2	9.525	4.76	4.4	0.4	7	●	●			●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range



●: Standard item

35° Rhombic

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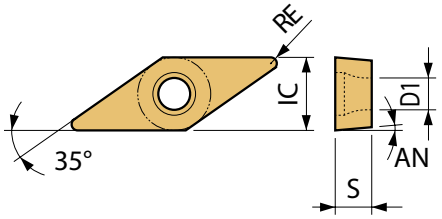
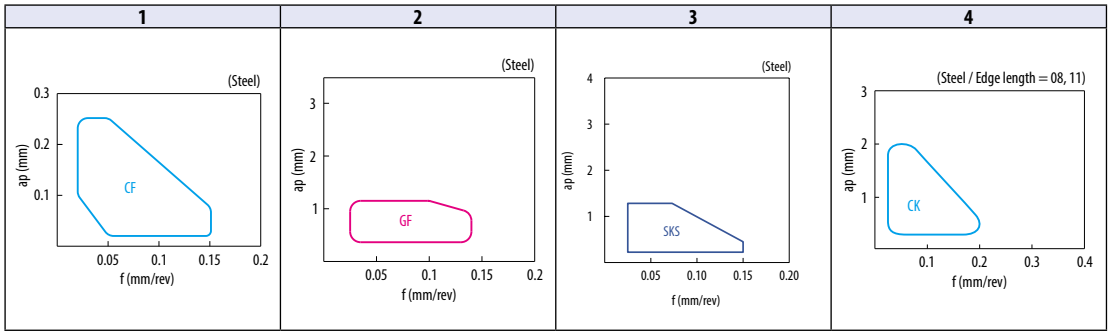


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

Insert		Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide DLC PDL010	DLC PDL025	PVD PR1155	PVD PR1205	PVD PR1225	PVD PR1535	PVD PR1705	PVD PR1725	PVD PR930	Applicable toolholder
Minute ap	Sharp edge	VPGT	110302CF	1	2	6.35	3.18	2.8	0.2	11									●	
Minute ap	Polished / Sharp Edge	VPGT	110301MP-CF 110302MP-CF	1	2	6.35	3.18	2.8	< 0.1 < 0.2	11	● ●	● ●		● ●	● ●	● ●	● ●	● ●		E24 E47~E49
Finishing	Polished / Sharp edge	VPGT	110301MFP-GF 110302MFP-GF	2	2	6.35	3.18	3	< 0.1 < 0.2	11				● ●	● ●	● ●	● ●	● ●		
Finishing	Polished / Sharp Edge	VPGT	110301MFP-SKS 110302MFP-SKS 110304MFP-SKS	3	2	6.35	3.18	3	< 0.1 < 0.2 < 0.4				● ●	● ●		● ●	● ●	● ●		
Finishing		VPGT	080201CK 080202CK	4	2	4.76	2.38	2.3	0.1 0.2	11									● ●	E48, E49 F90, F91
		VPGT	110301CK 110302CK	4	2	6.35	3.18	2.8	0.1 0.2	11									● ●	E24 E47~E49
Finishing		VPGT	080201MP-CK 080202MP-CK	4	2	4.76	2.38	2.3	< 0.1 < 0.2	11	● ●	● ●		● ●	● ●	● ●	● ●	● ●		E48, E49 F90, F91
	Polished / Sharp edge	VPGT	110301MP-CK 110302MP-CK	4	2	6.35	3.18	2.8	< 0.1 < 0.2	11	● ●	● ●		● ●	● ●	● ●	● ●	● ●		E24 E47~E49

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

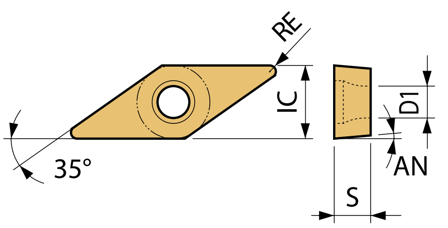
Applicable chipbreaker range



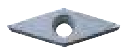
● : Standard item

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15

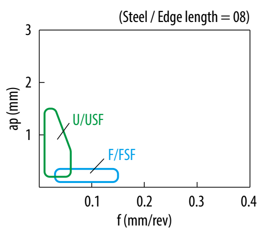
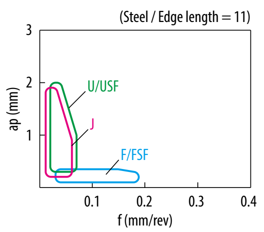


Work material	PR1225	PR1535	PR1725	PR930	TN60	
Free-cutting steel						P
Carbon steel / Alloy steel	○		●	○		P
Stainless steel	○	●	○	○		M
Gray cast iron						K
Nodular cast iron						K
Non-ferrous metals						N
Heat-resistant alloy		●				S
Titanium alloy		●				S
Hard materials						H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1535	PR1725	PR930	Cermet TN60	Applicable toolholder
Finishing	 Precision / Sharp edge	VPET	080201R-FSF	1	2	4.76	2.38	2.3	0.1	11				●	●	E48, E49 F90, F91
			080201L-FSF						0.1					●	●	
			080202R-FSF						0.2					●	●	
			080202L-FSF						0.2					●	●	
		VPET	1103003R-FSF	2	2	6.35	3.18	2.8	0.03	11				●		E24 E47~E49
			110301R-FSF						0.1					●	●	
			110301L-FSF						0.1					●	●	
			110302R-FSF						0.2					●	●	
			110302L-FSF						0.2					●	●	
		VPET	080201MR-FSF	1	2	4.76	2.38	2.3	< 0.1	11	●					E48, E49 F90, F91
			080201ML-FSF						< 0.1		●					
			080202MR-FSF						< 0.2		●					
			080202ML-FSF						< 0.2		●					
		VPET	1103005MR-FSF	2	2	6.35	3.18	2.8	< 0.05	11	●					E24 E47~E49
			110301MR-FSF						< 0.1		●					
			110301ML-FSF						< 0.1		●					
			110302MR-FSF						< 0.2		●					
			110302ML-FSF						< 0.2		●					
Finishing	 Sharp edge	VPET	080201MR-F	1	2	4.76	2.38	2.3	< 0.1	11		●	●			E48, E49 F90, F91
			080201ML-F						< 0.1			●	●			
			080202MR-F						< 0.2			●	●			
			080202ML-F						< 0.2			●	●			
		VPET	1103005MR-F	2	2	6.35	3.18	2.8	< 0.05	11		●	●			E24 E47~E49
			110301MR-F						< 0.1			●	●			
			110302MR-F						< 0.2			●	●			
			110302ML-F						< 0.2			●	●			

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

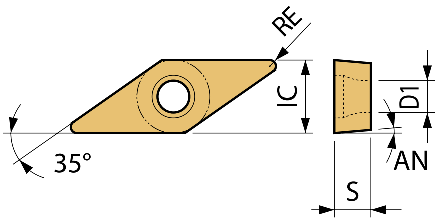
Applicable chipbreaker range

1	2
	

●: Standard item

35° Rhombic

How to read pages of "Turning inserts" ➡ See page B15



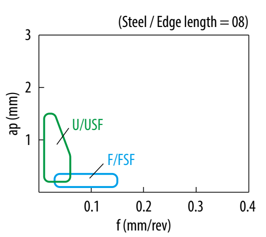
Work material	PR1225	PR1535	PR1725	PR930	TN60	
Free-cutting steel						P
Carbon steel / Alloy steel	○		●	○		P
Stainless steel	○	●	○	○		M
Gray cast iron						K
Nodular cast iron						K
Non-ferrous metals						N
Heat-resistant alloy		●				S
Titanium alloy		●				S
Hard materials						H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1225	PR1535	PR1725	PR930	Cermet - TN60	Applicable toolholder
Low feed	 Precision / Sharp edge	VPET	080201FR-USF	1	2	4.76	2.38	2.3	0.1	11				●		E48, E49 F90, F91
			080201FL-USF						0.1					●		
			080202FR-USF						0.2					●	●	
			080202FL-USF						0.2					●	●	
		VPET	1103003FR-USF	2	2	6.35	3.18	2.8	0.03	11				●		E24 E47~E49
			1103003FL-USF						0.03					●		
			110301FR-USF						0.1					●	●	
			110301FL-USF						0.1					●		
			110302FR-USF						0.2					●	●	
			110302FL-USF						0.2					●	●	
		VPET	080201MFR-USF	1	2	4.76	2.38	2.3	< 0.1	11	●					E48, E49 F90, F91
			080202MFR-USF						< 0.2		●					
			080202MFL-USF						< 0.2		●					
		VPET	1103005MFR-USF	2	2	6.35	3.18	2.8	< 0.05	11	●					E24 E47~E49
			110301MFR-USF						< 0.1		●					
			110301MFL-USF						< 0.1		●					
			110302MFR-USF						< 0.2		●					
Low feed	 Sharp edge	VPET	080201MFR-U	1	2	4.76	2.38	2.3	< 0.1	11		●	●			E48, E49 F90, F91
			080201MFL-U						< 0.1			●	●			
			080202MFR-U						< 0.2			●	●			
			080202MFL-U						< 0.2			●	●			
		VPET	1103005MFR-U	2	2	6.35	3.18	2.8	< 0.05	11		●	●			E24 E47~E49
			1103005MFL-U						< 0.05			●	●			
			110301MFR-U						< 0.1			●	●			
			110301MFL-U						< 0.1			●	●			
			110302MFR-U						< 0.2			●	●			
			110302MFL-U						< 0.2			●	●			
Low feed	 Sharp edge	VPET	1103005MFR-J	2	2	6.35	3.18	2.8	< 0.05	11	●	●	●			
			110301MFR-J						< 0.1		●	●	●			
			110301MFL-J						< 0.1			●	●			
			110302MFR-J						< 0.2		●	●	●			
			110302MFL-J						< 0.2			●	●			

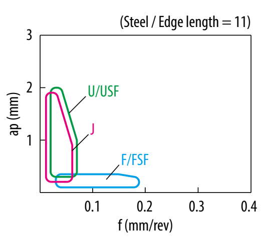
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

1



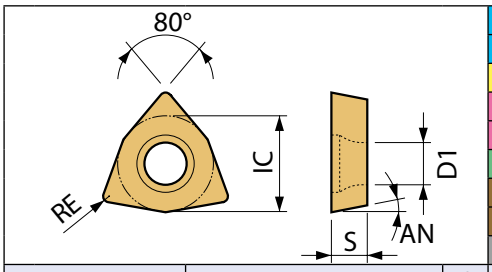
2



● : Standard item

80° Trigon

How to read pages of "Turning inserts" See page B15

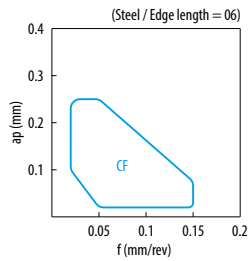
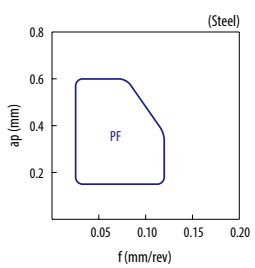
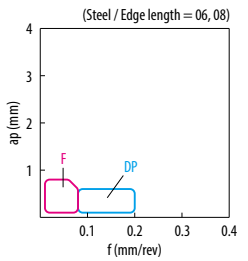


Free-cutting steel	P
Carbon steel / Alloy steel	P
Stainless steel	M
Gray cast iron	K
Nodular cast iron	K
Non-ferrous metals	N
Heat-resistant alloy	S
Titanium alloy	S
Hard materials	H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide CVD CA025P	CA115P	CA125P	CA510	CA515	CA525	CA530	Carbide PVD PR1225	PR1535	PR1705	PR1725	PR930	Cermet CVD CCX	Cermet PVD PV710	PV720	PV730	Cermet - TN60	TN610	TN620	Applicable toolholder
Minute ap	 Polished / Sharp edge	WBGT	060101MPR-CF	1	3	3.97	1.59	2.4	< 0.1	5									●		●									
			060101MPL-CF						< 0.1										●		●									
			060102MPR-CF						< 0.2									●	●		●									
			060102MPL-CF						< 0.2									●	●	●	●									
Finishing	 Polished / Sharp edge	WBGT	060101MFPR-PF	2	3	3.97	1.59	2.4	< 0.1	5									●		●									
			060101MFPL-PF						< 0.1										●		●									
			060102MFPR-PF						< 0.2										●		●									
			060102MFPL-PF						< 0.2										●		●									
		WBGT	080201MFPR-PF	2	3	4.76	2.38	2.3	< 0.1	5									●		●									
			080201MFPL-PF						< 0.1										●		●									
			080202MFPR-PF						< 0.2										●		●									
			080202MFPL-PF						< 0.2										●		●									
Finishing		WBMT	060102R-DP	3	3	3.97	1.59	2.3	0.2	5									●		●	●			●	●		●		F36 F100~F102
			060102L-DP						0.2		●	●	●	●	○	○			●		●	●			●	●		●		
			060104R-DP						0.4										●		●	●			●	●		●		
			060104L-DP						0.4		●	●	●		○	○			●		●	●			●	●		●		
		WBMT	080202R-DP	3	3	4.76	2.38	2.3	0.2	5									●		●	●			●	●		●		
			080202L-DP						0.2		●	●	●		○	○	●		●		●	●			●	●		●		
			080204R-DP						0.4										●		●	●			●	●		●		
			080204L-DP						0.4		●	●	●	●	○	○	●		●		●	●			●	●		●		
Finishing	 Sharp edge	WBET	0601005ML-F	3	3	3.97	1.59	2.3	< 0.05	5									●		●									
			060101MR-F						< 0.1										●		●									
			060101ML-F						< 0.1										●	●	●									
			060102MR-F						< 0.2										●		●				●			●		
			060102ML-F						< 0.2										●	●	●				●	●		●		
			060104MR-F						< 0.4										●		●				●			●		
			060104ML-F						< 0.4										●	●	●				●	●		●		
		WBET	080201MR-F	3	3	4.76	2.38	2.3	< 0.1	5															●			●		
			080201ML-F						< 0.1										●		●				●			●		
			080202MR-F						< 0.2																●			●		
			080202ML-F						< 0.2										●		●				●	●		●		
			080204MR-F						< 0.4										●		●				●			●		
			080204ML-F						< 0.4										●		●				●	●		●		

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

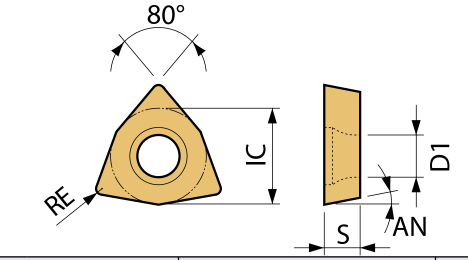
1	2	3
		

● : Standard item ○ : Will be replaced with a new product

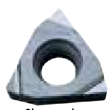
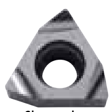
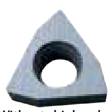
B
Turning indexable inserts
Chip breakers
Positive
C
D
R
S
T
V
W
Ceramic

80° Trigon

How to read pages of "Turning inserts" ➡ See page B15



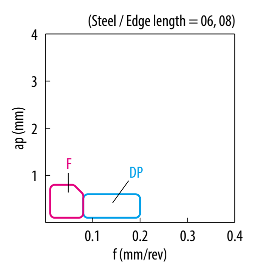
Work material	PR1535	PR1725	PR930	KW10	TN60	
Free-cutting steel						P
Carbon steel / Alloy steel		◕	○			P
Stainless steel	◕	○	○			M
Gray cast iron				○		K
Nodular cast iron						K
Non-ferrous metals				◕		N
Heat-resistant alloy	◕					S
Titanium alloy	◕			○		S
Hard materials						H

	Insert	Description		Applicable chipbreaker range	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1535	PR1725	PR930	- KW10	Cermet - TN60	Applicable toolholder
Finishing	 Sharp edge	WBGT	0601003L-F	1	3	3.97	1.59	2.3	0.03	5			●			F36 F100~F102
			060101R-F						0.1				●			
			060101L-F						0.1				●	●	●	
			060102R-F						0.2				●	●	●	
			060102L-F						0.2				●	●	●	
			060104R-F						0.4				●	●	●	
			060104L-F						0.4				●	●	●	
		WBGT	080201L-F	1	3	4.76	2.38	2.3	0.1	5			●		●	
			080202R-F						0.2				●	●	●	
			080202L-F						0.2				●	●	●	
			080204R-F						0.4				●	●	●	
			080204L-F						0.4				●	●	●	
Finishing	 Sharp edge	WBET	080201MR-P	2	3	4.76	2.38	2.3	< 0.1	5	●	●				
			080201ML-P						< 0.1		●	●				
			080202MR-P						< 0.2		●	●				
			080202ML-P						< 0.2		●	●				
			080204MR-P						< 0.4		●	●				
			080204ML-P						< 0.4		●	●				
Cast iron	 Without chipbreaker	WBGW	060102L	-	3	3.97	1.59	2.3	0.2	5				●	●	
		WBGW	080202L	-	3	4.76	2.38	2.3	0.2	5				●	●	
			080204L						0.4						●	

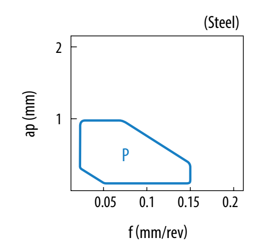
Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

1



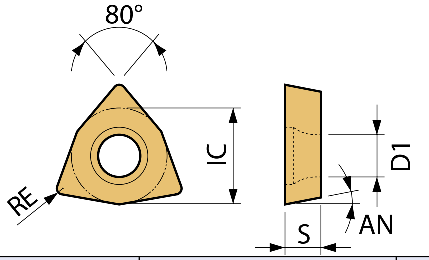
2



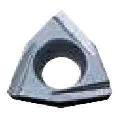
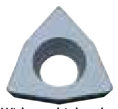
● : Standard item

80° Trigon

How to read pages of "Turning inserts" ➡ See page B15

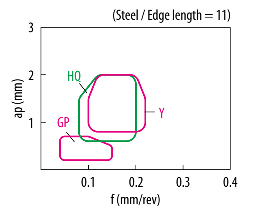
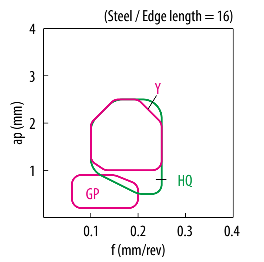


Work material	CA025P	CA115P	CA125P	CA515	CA525	CA530	CA6515	CA6525	PR1705	PR1725	PR930	KW10	CCX	PV710	PV720	PV730	TN60	TN610	TN620	
Free-cutting steel									◕											P
Carbon steel / Alloy steel	◔	○	◕	●	◔	✖				◕	◔		●	●	◕	◔		●	◕	P
Stainless steel							●	◕		◔	◔									M
Gray cast iron												◔	●							K
Nodular cast iron													○							K
Non-ferrous metals												◕								N
Heat-resistant alloy							○	◔												S
Titanium alloy												◔								S
Hard materials																				H

	Insert	Description		Applicable chipbreaker range	No. of edges	IC	S	D1	RE	AN	Carbide CVD CA025P	Carbide CVD CA115P	Carbide CVD CA125P	Carbide CVD CA515	Carbide CVD CA525	Carbide CVD CA530	Carbide CVD CA6515	Carbide CVD CA6525	Carbide PVD PR1705	Carbide PVD PR1725	Carbide PVD PR930	Carbide - KW10	Cermet CVD CCX	Cermet PVD PV710	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN60	Cermet - TN610	Cermet - TN620	Applicable toolholder
						Dimension (mm)				Angle (°)																				
Finishing		WPMT	110204GP	1	3	6.35	2.38	2.8	0.4	11	●	●	●		○					●	●				●	●	●		●	F100~F102
Finishing		WPMT	160304GP	2	3	9.525	3.18	4.4	0.4	11	●	●	●	○	○					●					●	●			●	F100~F102
Finishing - Medium		WPMT	110202HQ	1	3	6.35	2.38	2.8	0.2	11	●	●	●	○	○					●	●		●		●	●	●		●	F100~F102
Finishing - Medium		WPMT	110204HQ	1	3	6.35	2.38	2.8	0.4	11	●	●	●	○	○		●	●		●	●		●	●	●	●	●	●	●	F100~F102
Finishing - Medium		WPMT	160304HQ	2	3	9.525	3.18	4.4	0.4	11	●	●	●	○	○		●	●		●	●		●	●	●	●	●	●	●	F100~F102
Finishing - Medium		WPMT	160308HQ	2	3	9.525	3.18	4.4	0.8	11	●	●	●	○	○	●	●	●		●	●		●	●	●	●	●	●	●	F100~F102
Finishing - Medium		WPGT	110202L-Y	1	3	6.35	2.38	2.8	0.2	11											●	●					●			F100~F102
Finishing - Medium		WPGT	110204R-Y	1	3	6.35	2.38	2.8	0.4	11											●									F100~F102
Finishing - Medium		WPGT	110204L-Y	1	3	6.35	2.38	2.8	0.4	11											●	●					●			F100~F102
Finishing - Medium		WPGT	160304R-Y	2	3	9.525	3.18	4.4	0.4	11																	●			F100~F102
Finishing - Medium		WPGT	160304L-Y	2	3	9.525	3.18	4.4	0.4	11											●	●					●			F100~F102
Finishing - Medium		WPGT	160308L-Y	2	3	9.525	3.18	4.4	0.8	11											●	●								F100~F102
Finishing - Medium		WPGT	110204MR-Y	1	3	6.35	2.38	2.8	< 0.4	11									●											F100~F102
Finishing - Medium		WPGT	110204ML-Y	1	3	6.35	2.38	2.8	< 0.4	11									●	●										F100~F102
Cast iron	 Without chipbreaker	WPGW	110202	-	3	6.35	2.38	2.8	0.2	11												●								F100~F102
Cast iron		WPGW	110204	-	3	6.35	2.38	2.8	0.4	11												●								F100~F102
Cast iron		WPGW	160304	-	3	9.525	3.18	4.4	0.4	11												●								F100~F102
Cast iron		WPGW	160308	-	3	9.525	3.18	4.4	0.8	11												●								F100~F102

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable chipbreaker range

1	2
	

● : Standard item ○ : Will be replaced with a new product

25° Rhombic

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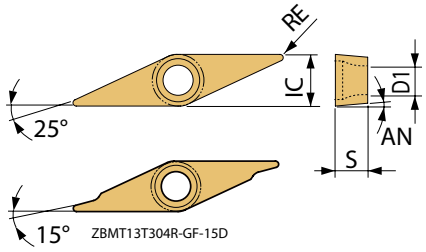


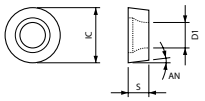
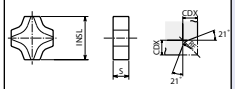
Free-cutting steel												P
Carbon steel / Alloy steel			●	●	○	●						P
Stainless steel	●	○										M
Gray cast iron												K
Nodular cast iron												K
Non-ferrous metals												N
Heat-resistant alloy	●											S
Titanium alloy	●											S
Hard materials												H

	Insert	Description	No. of edges	Dimension (mm) IC	S	D1	RE	Angle (°) AN	Carbide PVD PR1535	Carbide PVD PR1725	Cermet PVD PV720	Cermet PVD PV730	Cermet - TN620	Applicable toolholder
Finishing		ZBMT 13T302GF 13T304GF 13T308GF	2	6.35	3.97	3.7	0.2 0.4 0.8	5	● ● ●	● ● ●	 ● ●	 ● ●	 ● ●	E52, E53 F106~F110
Finishing		ZBMT 13T304R-GF-15D	2	6.35	3.97	3.7	0.4	5	●	●				

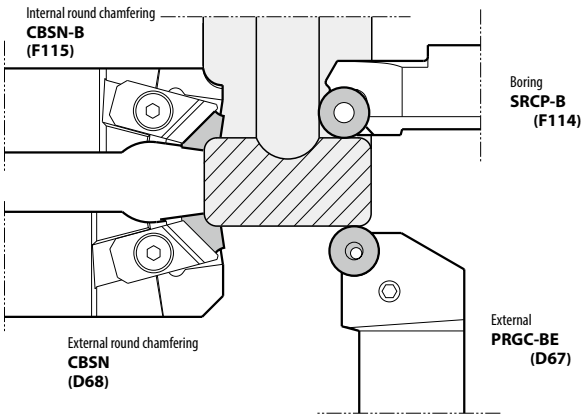
● : Standard item

Round / SNMF Type

How to read pages of "Turning inserts" See page B15

													Free-cutting steel / Carbon steel / Alloy steel: P
													Stainless steel: M
													Gray cast iron / Nodular cast iron: K
													Non-ferrous metals: N
													Heat-resistant alloy / Titanium alloy: S
													Hard materials: H
Insert		Description		No. of edges	Dimension (mm)						Angle (°)	Cermet	Applicable toolholder
					CDX	INSL	IC	S	D1	RE	AN	- / TN90	
	 External / Boring / Facing	RCMT	1204M0-BB	-	-	-	12	4.76	4.2	-	7	●	D67
		RCMT	1606M0-BB	-	-	-	16	6.35	5.5	-	7	●	
		RPMT	1203M0-BB	-	-	-	12	3.18	4.4	-	11	●	F114
		RPMT	1604M0-BB	-	-	-	16	4.76	5.5	-	11	●	
	 Round Chamfering	SNMF	120406-21	8	1.5	12.7	-	4.76	-	0.6	-	●	D68 F115
			120410-21		3					1		●	
			120416-21		3.1					1.6		●	
			120421-21		3.2					2.1		●	
			120426-21		3.3					2.6		●	

Tooling for Bearing machining

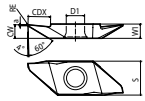
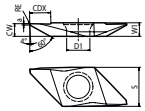
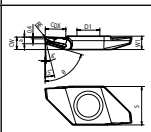
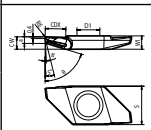


● : Standard item

TKFB

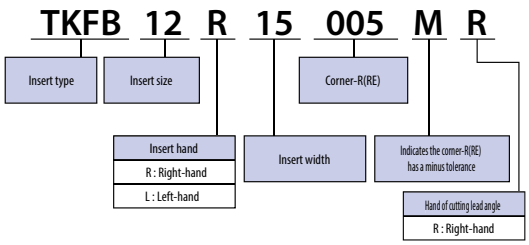
How to read pages of "Turning inserts" See page B15

Free-cutting steel															P
Carbon steel / Alloy steel															P
Stainless steel															M
Gray cast iron															K
Nodular cast iron															K
Non-ferrous metals															N
Heat-resistant alloy															S
Titanium alloy															S
Hard materials															H

Insert		Description	No. of edges	Dimension (mm) CW	CDX	S	D1	RE	W1	a	Angle (°) θ	Carbide PVD PR1225	PR1535	PR1725	- KW10	Applicable toolholder
		TKFB 12R15005M TKFB 12R28005M TKFB 12R28010M	2	1.5 2.8 2.8	2.6 4.6 4.6	8.7	5.2	< 0.05 < 0.05 < 0.1	3	0.25 0.3 0.3	-	● ● ●	● ● ●	● ● ●	● ● ●	E15 E16
		TKFB 16R38005M TKFB 16R38010M	2	3.8	6.3	9.5	5.2	< 0.05 < 0.1	4	0.3	-	● ●	● ●	● ●	● ●	
		TKFB 12L28005MR TKFB 12L28010MR	2	2.8	4.6	8.7	5.2	< 0.05 < 0.1	3	0.3	-	● ●	● ●			
		TKFB 16L38005MR TKFB 16L38010MR	2	3.8	6.3	9.5	5.2	< 0.05 < 0.1	4	0.3	-	● ●	● ●			
	 Polished	TKFB 12R28005P-GQ TKFB 12R28015P-GQ	2	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	74	● ●	● ●	● ●		
		TKFB 16R38005P-GQ TKFB 16R38015P-GQ	2	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	72	● ●	● ●	● ●		
		TKFB 12R28005-GQ TKFB 12R28015-GQ	2	2.8	4.6	8.7	5.2	0.05 0.15	3	1.5	74	● ●	● ●	● ●		
		TKFB 16R38005-GQ TKFB 16R38015-GQ	2	3.8	6.3	9.5	5.2	0.05 0.15	4	1.8	72	● ●	● ●	● ●		

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Inserts identification system (Ref. to Tables 1 and 2)



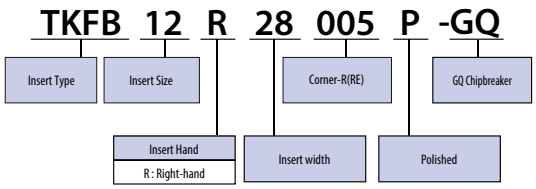


Table 1

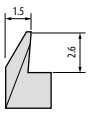
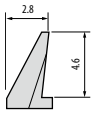
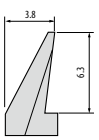
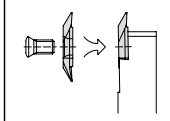
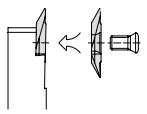
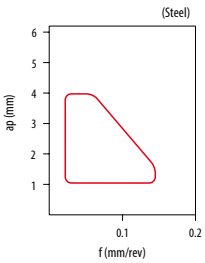
Small machining	General purpose	Large machining
		
TKFB12R15..	TKFB12R28..	TKFB16R38..

Table 2

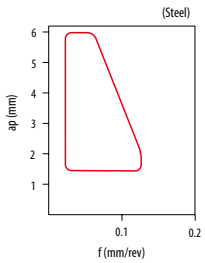
Toolholder	Right-hand	Toolholder	Left-hand
Insert	Right-hand	Insert	Left-hand
Lead angle	Right-hand	Lead angle	Right-hand
			

Applicable chipbreaker range

TKFB12R28...GQ



TKFB16R38...GQ

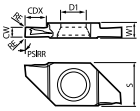


● : Standard item

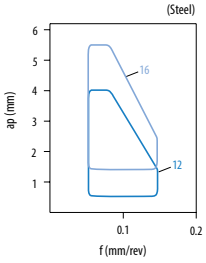
TKF-GTP

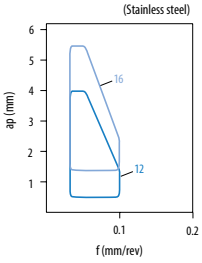
How to read pages of "Turning inserts" See page B15

												Free-cutting steel	P
												Carbon steel / Alloy steel	P
												Stainless steel	M
												Gray cast iron	K
												Nodular cast iron	K
												Non-ferrous metals	N
												Heat-resistant alloy	S
												Titanium alloy	S
												Hard materials	H

Insert		Description		No. of edges	Dimension (mm)						Angle (°)	Carbide		Applicable toolholder
					CW	CDX	S	D1	RE	W1	PSIRR	PVD		
												PR1535	PR1725	
	 Plunge and turn	TKF	12R200-GTP	2	2	4.3	8.7	5.2	0.08	3	0	●	●	E15 E16
		TKF	16R300-GTP	2	3	5.8	9.5	5.2	0.08	4	0	●	●	

Applicable chipbreaker range



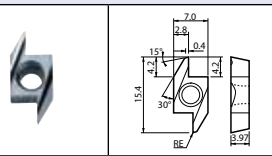
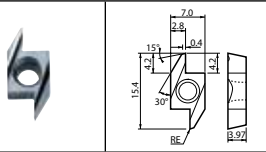
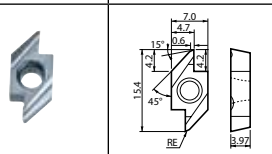
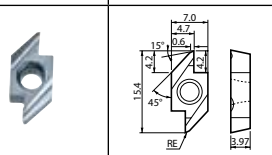
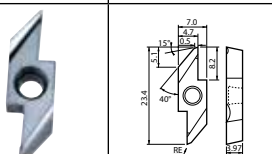
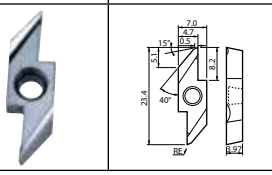


● : Standard item

ABS / ABW

How to read pages of "Turning inserts" See page B15

Free-cutting steel	●	P
Carbon steel / Alloy steel	○	P
Stainless steel	●	M
Gray cast iron	●	K
Nodular cast iron	○	K
Non-ferrous metals	●	N
Heat-resistant alloy	●	S
Titanium alloy	●	S
Hard materials		H

Insert	Description	No. of edges	Dimension (mm) RE	Carbide PVD PR1225	Carbide PVD PR1705	Carbide PVD PR1725	Carbide PVD PR930	Carbide - KW10	Cermet - TC60M	Applicable toolholder
	ABS 15R4005M	2	< 0.05	●	●	●				E20
	ABS 15R4015M		< 0.15	●	●	●				
	ABS 15R4005	2	0.05				●	●	●	E20
	ABS 15R4015		0.15				●	●	●	
	ABW 15R4005M	2	< 0.05	●	●	●				E21
	ABW 15R4015M		< 0.15	●	●	●				
	ABW 15R4005	2	0.05				●	●	●	E21
	ABW 15R4015		0.15				●	●	●	
	ABW 23R5005M	2	< 0.05	●		●				E22
	ABW 23R5015M		< 0.15	●	●	●				
	ABW 23R5005	2	0.05				●	●	●	E22
	ABW 23R5015		0.15				●	●	●	

Insert whose corner-R(RE) dimension expressed with less than sign (e.g. <0.05, <0.1, <0.2 etc.) indicate models with minus tolerance on corner-R(RE).

● : Standard item

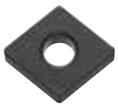
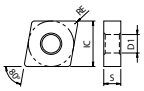
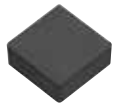
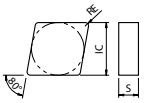
80° Rhombic

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)	K
Gray cast iron (without scale)	K
Nodular cast iron (with scale)	K
Nodular cast iron (without scale)	K
Heat-resistant alloy	S
Hard materials	H

Insert		Description		Edge preparation type	No. of edges	Dimension (mm) IC	S	D1	RE	Ceramic CVD CS7050	PVD A66N	PVD PT600M	- A65	- KA30	- KS6015	- KS6040	- KS6050	- KT66	Applicable toolholder
		CNGA	120412S01025	S01025	4	12.7	4.76	5.16	1.2				●						D8~D10 F118 F131 F132
		CNGA	120404S01525 120408S01525 120412S01525	S01525	4	12.7	4.76	5.16	0.4 0.8 1.2		● ● ●								
		CNGA	120404S02025 120408S02025 120412S02025	S02025	4	12.7	4.76	5.16	0.4 0.8 1.2			● ● ●							
		CNGA	120404T02025 120408T02025 120412T02025	T02025	4	12.7	4.76	5.16	0.4 0.8 1.2	 ● ●		● ● ●	 ● ●	 ● ●	 ● ●	 ● ●	 ● ●	 □ □	 □ □	
		CNGA	120404S03030 120408S03030 120412S03030	S03030	4	12.7	4.76	5.16	0.4 0.8 1.2		● ● ●								
		CNMA	120408S01525	S01525	4	12.7	4.76	5.16	0.8		●								
		CNMA	120408S03030 120412S03030	S03030	4	12.7	4.76	5.16	0.8 1.2		● ●								
		CNGN	120408T01020	T01020	4	12.7	4.76	-	0.8							●			D49
		CNGN	120412S01025	S01025	4	12.7	4.76	-	1.2				●						
		CNGN	120408T02025 120412T02025 120416T02025	T02025	4	12.7	4.76	-	0.8 1.2 1.6			● ●			● ●		●		
		CNGN	120708S01525 120712S01525	S01525	4	12.7	7.94	-	0.8 1.2		● ●								
		CNGN	120704T02025 120708T02025 120712T02025 120716T02025	T02025	4	12.7	7.94	-	0.4 0.8 1.2 1.6				● ● ● ●						
		CNGN	160708T02025 160712T02025 160716T02025	T02025	4	15.875	7.94	-	0.8 1.2 1.6				● ● ●						
		CNMN	120708T02025	T02025	4	12.7	7.94	-	0.8				●						

● : Standard item □ : Expected to be discontinued in September 2026

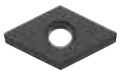
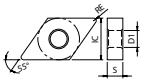
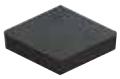
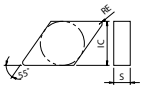
55° Rhombic

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)				K
Gray cast iron (without scale)		○	○	
Nodular cast iron (with scale)				
Nodular cast iron (without scale)				
Heat-resistant alloy				S
Hard materials	○	●		H

Insert		Description	Edge preparation type	No. of edges	Dimension (mm) IC	S	D1	RE	Ceramic PVD A66N	PVD PT600M	Ceramic - A65	Applicable toolholder
		DNGA 150404S01525 150408S01525	S01525	4	12.7	4.76	5.16	0.4 0.8	● ●			D13~D17 F120, F136 F138~F140
		DNGA 150404S02025 150408S02025	S02025	4	12.7	4.76	5.16	0.4 0.8		● ●		
		DNGA 150404T02025 150408T02025 150412T02025	T02025	4	12.7	4.76	5.16	0.4 0.8 1.2		● ● ●	● ●	
		DNGA 150408S03030	S03030	4	12.7	4.76	5.16	0.8	●			
		DNGA 150604T02025 150608T02025 150612T02025	T02025	4	12.7	6.35	5.16	0.4 0.8 1.2		● ● ●		D13~D17
		DNGN 150704S01525 150708S01525 150712S01525	S01525	4	12.7	7.94	-	0.4 0.8 1.2	● ● ●			D50
		DNGN 150708S02025	S02025	4	12.7	7.94	-	0.8		●		
		DNGN 150704T02025 150708T02025 150712T02025 150716T02025	T02025	4	12.7	7.94	-	0.4 0.8 1.2 1.6			● ● ● ●	

● : Standard item

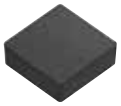
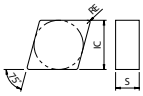
75° Rhombic

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)			K
Gray cast iron (without scale)		○	
Nodular cast iron (with scale)			
Nodular cast iron (without scale)			
Heat-resistant alloy			S
Hard materials	○		H

Insert		Description		Edge preparation type	No. of edges	Dimension (mm) IC	S	RE	Ceramic PVD A66N	Ceramic - A65	Applicable toolholder
		ENGN	130708S01525	S01525	4	12.7	7.94	0.8	●		D51 F151
		ENGN	130704T02025	T02025	4	12.7	7.94	0.4		●	
			130708T02025					0.8		●	
			130712T02025					1.2		●	
			130716T02025					1.6		●	
			130720T02025					2		●	

● : Standard item

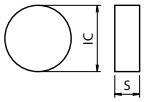
Round

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
E	R-honed	E005	R0.05mm honed
K	Double chamfered	K15015	1.5mm × 15° chamfered
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)				●			✖	K
Gray cast iron (without scale)		↻	↻				↻	
Nodular cast iron (with scale)								
Nodular cast iron (without scale)								
Heat-resistant alloy					●	✖		S
Hard materials	○	●						H

Insert	Description		Edge preparation type	Dimension (mm)		Ceramic						Applicable toolholder
				IC	S	PVD		-				
						A66N	PT600M	A65	KS6015	KS6030	KS6040	KS6050	
 	RNGN	090300T01020	T01020	9.525	3.18					●			D61
	RNGN	090400S01525	S01525	9.525	4.76	●							
	RNGN	090400S02025	S02025	9.525	4.76		●						
	RNGN	090400T02025	T02025	9.525	4.76		●	●					
	RNGN	120400E003	E003	12.7	4.76					●			D58 D61
	RNGN	120400T01020	T01020	12.7	4.76					●			
	RNGN	120400S01525	S01525	12.7	4.76	●							
	RNGN	120400S02025	S02025	12.7	4.76		●						
	RNGN	120400T02025	T02025	12.7	4.76		●	●	●			●	
	RNGN	120700E003	E003	12.7	7.94					●			
	RNGN	120700E005	E005	12.7	7.94						●		
	RNGN	120700T01020	T01020	12.7	7.94					●	●		
	RNGN	120700K15015	K15015	12.7	7.94		●						
	RNGN	120700S01525	S01525	12.7	7.94	●							
	RNGN	120700S02025	S02025	12.7	7.94		●						
	RNGN	120700T02025	T02025	12.7	7.94		●	●	●			●	
	RNGN	150700S01525	S01525	15.875	7.94	●							D58
	RNGN	150700S02025	S02025	15.875	7.94		●						
	RNGN	150700T02025	T02025	15.875	7.94			●					
	RNGN	190700E003	E003	19.05	7.94					●			-
	RNGN	190700T01020	T01020	19.05	7.94					●	●		

● : Standard item

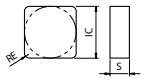
90° Square

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)	◔				●		✖		K
Gray cast iron (without scale)	◕		◔	◔	●		◔	◔	K
Nodular cast iron (with scale)	◔								K
Nodular cast iron (without scale)	◔								K
Heat-resistant alloy						✖			S
Hard materials		○	●						H

Insert		Description		Edge preparation type	No. of edges	Dimension (mm) IC	S	D1	RE	Ceramic CVD CS7050	PVD A66N	PVD PT600M	- A65	- KA30	- KS6015	- KS6040	- KS6050	- KT66	Applicable toolholder
		SNGA	120408S01525 120412S01525	S01525	8	12.7	4.76	5.16	0.8 1.2		● ●								D19~D21 F142
		SNGA	120408S02025 120412S02025	S02025	8	12.7	4.76	5.16	0.8 1.2			● ●							
		SNGA	120408T02025 120412T02025 120416T02025	T02025	8	12.7	4.76	5.16	0.8 1.2 1.6	 ●		● ● ●	● ●		● ● ●		● ● ●		
		SNMA	120408S03030	S03030	8	12.7	4.76	5.16	0.8		●								
		SNGN	120408T00520	T00520	8	12.7	4.76	-	0.8				●						D52~D54 D63 D64
		SNGN	120412T01020	T01020	8	12.7	4.76	-	1.2							●			
		SNGN	120408S01025 120412S01025 120416S01025 120420S01025	S01025	8	12.7	4.76	-	0.8 1.2 1.6 2					● ● ● ●					
		SNGN	120408S01525 120412S01525 120416S01525	S01525	8	12.7	4.76	-	0.8 1.2 1.6		● ● ●								
		SNGN	120408S02025 120412S02025 120416S02025	S02025	8	12.7	4.76	-	0.8 1.2 1.6			● ● ●							
		SNGN	120404T02025 120408T02025 120412T02025 120416T02025 120420T02025	T02025	8	12.7	4.76	-	0.4 0.8 1.2 1.6 2	 ●		● ● ● ● ●	● ● ● ● ●		● ● ● ●		● ● ●	□ □	
		SNGN	120416S03030	S03030	8	12.7	4.76	-	1.6		●								
		SNGN	120704S01525 120708S01525 120712S01525 120716S01525 120720S01525	S01525	8	12.7	7.94	-	0.4 0.8 1.2 1.6 2		● ● ● ● ●								
		SNGN	120708S02025 120712S02025 120716S02025 120720S02025	S02025	8	12.7	7.94	-	0.8 1.2 1.6 2			● ● ● ●							
		SNGN	120704T02025 120708T02025 120712T02025 120716T02025 120720T02025	T02025	8	12.7	7.94	-	0.4 0.8 1.2 1.6 2			● ● ● ● ●	● ● ● ●		● ●		● ●		
		SNMN	120716T02025	T02025	8	12.7	7.94	-	1.6				●						
		SNGN	150712T02025 150716T02025	T02025	8	15.875	7.94	-	1.2 1.6				● ●						D52 D53

● : Standard item □ : Expected to be discontinued in September 2026

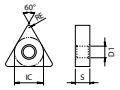
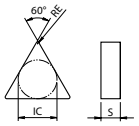
60° Triangle

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)					●	✖		K
Gray cast iron (without scale)		◡	◡	●		◡	◡	
Nodular cast iron (with scale)								
Nodular cast iron (without scale)								
Heat-resistant alloy								S
Hard materials	○	●						H

Insert		Description		Edge preparation type	No. of edges	Dimension (mm) IC	S	D1	RE	Ceramic PVD A66N	PVD PT600M	- A65	- KA30	- KS6015	- KS6050	- KT66	Applicable toolholder
		TNGA	160408T00520	T00520	6	9.525	4.76	3.81	0.8				●				D22~D25 D27 D28 F122 F143 F144
		TNGA	160404S01525 160408S01525 160412S01525	S01525	6	9.525	4.76	3.81	0.4 0.8 1.2	● ● ●							
		TNGA	160404S02025 160408S02025 160412S02025	S02025	6	9.525	4.76	3.81	0.4 0.8 1.2		● ● ●						
		TNGA	160404T02025 160408T02025 160412T02025	T02025	6	9.525	4.76	3.81	0.4 0.8 1.2		● ● ●	● ●		● ●	● ●	□ □ □	
		TNGA	160408S03030	S03030	6	9.525	4.76	3.81	0.8	●							
		TNGN	110304T00520 110308T00520 110312T00520	T00520	6	6.35	3.18	-	0.4 0.8 1.2		● ●	● ● ●					D66 F152
		TNGN	160404T00520 160408T00520 160412T00520	T00520	6	9.525	4.76	-	0.4 0.8 1.2			● ●	●				D56
		TNGN	160404S01025 160408S01025 160412S01025	S01025	6	9.525	4.76	-	0.4 0.8 1.2				● ● ●				
		TNGN	160404S01525 160408S01525 160412S01525	S01525	6	9.525	4.76	-	0.4 0.8 1.2	● ● ●							
		TNGN	160404S02025 160408S02025 160412S02025	S02025	6	9.525	4.76	-	0.4 0.8 1.2		● ●						
		TNGN	160404T02025 160408T02025 160412T02025	T02025	6	9.525	4.76	-	0.4 0.8 1.2			● ● ●		● ●	●		
		TNGN	160704T02025 160708T02025 160712T02025	T02025	6	9.525	7.94	-	0.4 0.8 1.2			● ● ●					

● : Standard item □ : Expected to be discontinued in September 2026

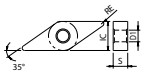
35° Rhombic

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01525	0.15mm × 25° chamfered and R-honed
T	Chamfered	T02025	0.20mm × 25° chamfered

Gray cast iron (with scale)						K
Gray cast iron (without scale)		○	○	○		
Nodular cast iron (with scale)						
Nodular cast iron (without scale)						
Heat-resistant alloy						S
Hard materials	○	●				H

Insert		Description	Edge preparation type	No. of edges	Dimension (mm) IC	S	D1	RE	Ceramic PVD A66N	PVD PT600M	- A65	- KT66	Applicable toolholder
		VNGA 160404S01525	S01525	4	9.525	4.76	3.81	0.4	●				D30~D39
		VNGA 160408S01525						0.8	●				
		VNGA 160404S02025	S02025	4	9.525	4.76	3.81	0.4		●			
		VNGA 160408S02025						0.8		●			
		VNGA 160404T02025	T02025	4	9.525	4.76	3.81	0.4		●	●	□	
		VNGA 160408T02025						0.8		●	●	□	
		VNGA 160412T02025						1.2		●			
		VNMA 160408S01525	S01525	4	9.525	4.76	3.81	0.8	●				

● : Standard item □ : Expected to be discontinued in September 2026

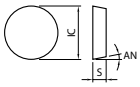
Round

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
E	R-honed	E003	R0.03mm honed
T	Chamfered	T01020	0.10mm × 20° chamfered

Gray cast iron (with scale)		K
Gray cast iron (without scale)		
Nodular cast iron (with scale)		
Nodular cast iron (without scale)		
Heat-resistant alloy	●	S
Hard materials		H

Insert		Description	Edge preparation type	Dimension (mm) IC	Dimension (mm) S	Angle (°) AN	Ceramic - KS6030	Applicable toolholder
		RPGN 090300E003	E003	9.525	3.18	11	●	-
		RPGN 090300T01020	T01020	9.525	3.18	11	●	
		RPGN 120400E003	E003	12.7	4.76	11	●	
		RPGN 120400T01020	T01020	12.7	4.76	11	●	

● : Standard item

Square

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S00820	0.08mm × 20° chamfered and R-honed
T	Chamfered	T00820	0.08mm × 20° chamfered

				K
Gray cast iron (with scale)				
Gray cast iron (without scale)			○	
Nodular cast iron (with scale)				
Nodular cast iron (without scale)				
Heat-resistant alloy				S
Hard materials		○		H

Insert		Description	Edge preparation type	No. of edges	Dimension (mm) IC	S	RE	Angle (°) AN	Ceramic PVD A66N	Ceramic - A65S	Applicable toolholder
		SPGN 090308T00820	T00820	4	9.525	3.18	0.8	11		●	F112
		SPGN 120308S00820	S00820	4	12.7	3.18	0.8	11	●		
		SPGN 120308T00820 120312T00820	T00820	4	12.7	3.18	0.8 1.2	11		● ●	

● : Standard item

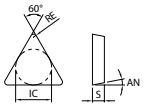
Triangle

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S00820	0.08mm × 20° chamfered and R-honed
T	Chamfered	T00820	0.08mm × 20° chamfered

Gray cast iron (with scale)				K
Gray cast iron (without scale)		○	○	
Nodular cast iron (with scale)				
Nodular cast iron (without scale)				
Heat-resistant alloy				S
Hard materials	○	●		H

Insert	Description	Edge preparation type	No. of edges	Dimension (mm) IC	S	RE	AN	Angle (°)	Ceramic PVD A66N	PVD PT600M	- A65	Applicable toolholder
 	TBGN 060104S00820	S00820	3	3.97	1.59	0.4	5		●	●		-
	TBGN 060108S00820					0.8			●	●		
	TPGN 090204T00820	T00820	3	5.56	2.38	0.4	11			●		F113
	TPGN 090208T00820					0.8				●		
	TPGN 110304S00820	S00820	3	6.35	3.18	0.4	11		●	●		
	TPGN 110308S00820					0.8			●	●		
	TPGN 110304T00820	T00820	3	6.35	3.18	0.4	11			●	●	
	TPGN 110308T00820					0.8				●	●	
	TPGN 160304S00820	S00820	3	9.525	3.18	0.4	11		●	●		
	TPGN 160308S00820					0.8			●	●		
	TPGN 160312S00820					1.2			●			
	TPGN 160304T00820	T00820	3	9.525	3.18	0.4	11			●	●	
	TPGN 160308T00820					0.8				●	●	

● : Standard item

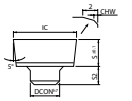
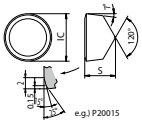
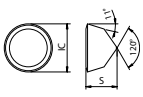
Inserts for high hardened roll

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
E	R-honed	E005	R0.05mm honed
K	Double chamfered	K20003	2.0mm × 3° chamfered
P	Double chamfered and R-honed	P20015	2.0mm × 15° chamfered and R-honed
S	Chamfered and R-honed	S01020	0.10mm × 20° chamfered and R-honed
T	Chamfered	T01020	0.10mm × 20° chamfered

Gray cast iron (with scale)	✖				K
Gray cast iron (without scale)					
Nodular cast iron (with scale)					
Nodular cast iron (without scale)					
Heat-resistant alloy		●	✖		S
Hard materials	●			◔	H

Insert		Description		Edge preparation type	Dimension (mm)					Ceramic				Applicable toolholder
					IC	DCON	S	S2	CHW	PVD	-			
										PT600M	KS6030	KS6040	KT66	
		RBG	16K20003	K20003	16	8	8	5	0.2	●				-
		RCGX	060600E005	E005	6.35	-	6.35	-	-			●		-
		RCGX	060600T01020	T01020	6.35	-	6.35	-	-		●	●		
		RCGX	090700T01020	T01020	9.525	-	8	-	-		●	●		
		RCGX	090700P20015	P20015	9.525	-	8	-	-	●			□	
		RCGX	120700E003	E003	12.7	-	8	-	-		●			
		RCGX	120700T01020	T01020	12.7	-	8	-	-		●			
		RCGX	120700P20015	P20015	12.7	-	8	-	-	●				
		RPGX	060600E003	E003	6.35	-	6.35	-	-		●			-
		RPGX	060600T01020	T01020	6.35	-	6.35	-	-		●			
		RPGX	090700E003	E003	9.525	-	8	-	-		●			
		RPGX	090700T01020	T01020	9.525	-	8	-	-		●			
		RPGX	120700E003	E003	12.7	-	8	-	-		●			

● : Standard item □ : Expected to be discontinued in September 2026

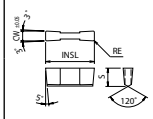
Grooving inserts

How to read pages of "Turning inserts" See page B15

Cutting edge preparation

Symbol	Specification	Example	
S	Chamfered and R-honed	S01020	0.10mm × 20° chamfered and R-honed
T	Chamfered	T01020	0.10mm × 20° chamfered

				K
Gray cast iron (with scale)				
Gray cast iron (without scale)		●	○	
Nodular cast iron (with scale)				
Nodular cast iron (without scale)				
Heat-resistant alloy				S
Hard materials	○	●		H

Insert		Description	Edge preparation type	No. of edges	Dimension (mm)				Tolerance (mm)		Ceramic			Applicable toolholder
					CW	S	RE	INSL	CW min.	CW max.	PVD A66N	PVD PT600M	- A65	
		GH 4020-05	S01020 T01020	2	4	7.5	0.5	20	- 0.05	+ 0.05	●	●	●	G62 G63 G93
		GH 5020-05	S01020 T01020	2	5	7.5	0.5	20	- 0.05	+ 0.05	●	●	●	
		GH 6020-05	T01020	2	6	7.5	0.5	20	- 0.05	+ 0.05			●	
		GH 7020-05	T01020	2	7	7.5	0.5	20	- 0.05	+ 0.05			●	

● : Standard item