Turning Indexable Inserts

B1~B115

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

(2) Relief Angle

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

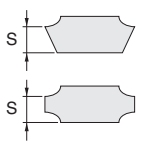
Symbol	Hole	Hole Shape	Chipbreaker	Shape
N	No	-	No	
R			Single-sided	
F			Double-sided	
A	Yes	With Hole	No	
M			Single-sided	
G			Double-sided	
W		With Hole and One Countersink 40°~60°	No	
T			Single-sided	
Q		With Hole and Two Countersink 40°~60°	No	
U			Double-sided	
B		With Hole and One Countersink 70°~90°	No	
H			Single-sided	
C		With Hole and Two Countersink 70°~90°	No	
J			Double-sided	
X	-	-	-	-

(4) Hole / Chipbreaker

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ISO (metric)	C	N	M	G	12	04	08	PG
ANSI (inch)	C	N	M	G	4	3	2	PG

(5) Edge Length (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		

(6) Thickness			
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



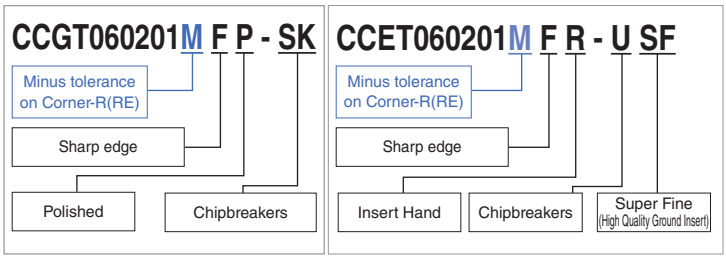
Thickness displayed as the distance between bottom surface and highest point on cutting edge.

(7) Corner-R(RE)			
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.

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

Positive Inserts 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.

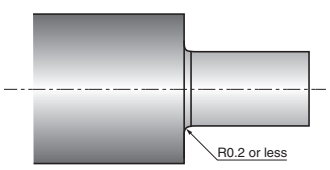


Fig. 1 Example of a specified corner-R in the drawing

Insert Color

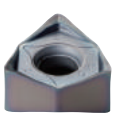
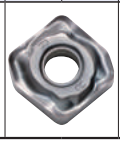
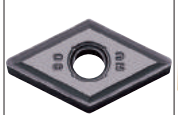
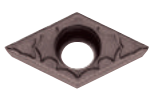
Cermet, MEGACOAT NANO Cermet, MEGACOAT Cermet and PVD Coated Cermet

Grades	Cermet									MEGACOAT NANO Cermet		MEGACOAT Cermet				PVD Coated Cermet	
	TN610	TN620	TN620M	TN6010	TN6020	TN60	TN100M	TC40N	TC60M	PV710	PV720	PV7005	PV7010	PV7025	PV7040	PV7020	PV90
Insert Color																	

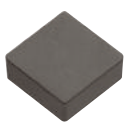
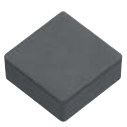
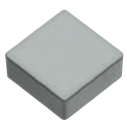
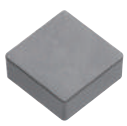
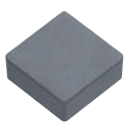
CVD Coated Carbide

Grades	CVD Coated Carbide																
	CA310	CA315	CA320	CA415D NEW	CA520D NEW	CA420M	CA45 series	CA40/CA41 series	CA510	CA515 NEW	CA025P	CA525	CA530	CA55 series	CA65 series		
Insert Color																	

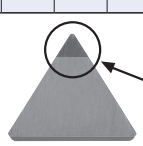
PVD Coated Carbide

Grades	MEGACOAT NANO						MEGACOAT HARD		MEGACOAT							PVD Coated Carbide								
	PR1425	PR1510	PR1515	PR1525	PR1535	PR1625 NEW	PR005S NEW	PR015S	PR1210	PR1215	PR1225	PR1230	PR1305	PR1310	PR1325	PR660	PR830	PR905	PR915	PR930	PR1005	PR1025	PR1115	PR1125
Insert Color																									

Ceramic

Grades	Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitride Ceramic	SiAlON Ceramic		Honeycomb structure Ceramic
	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1
Insert Color										

CBN and PCD

Grades	CBN					PCD			MEGACOAT CBN	PVD Coated CBN
	KBN65B	KBN475	KBN510	KBN525	KBN570	KPD001	KPD010	KPD230	KBN..M	KBN900
Insert Color	 CBN and PCD									

DLC Coated Carbide

Grades	DLC Coated Carbide
	NEW PDL010 PDL025
Insert Color	

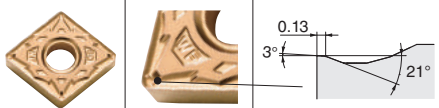
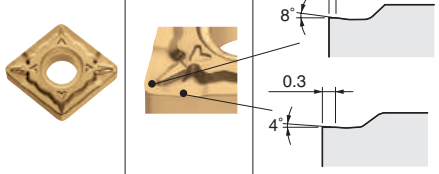
Carbide

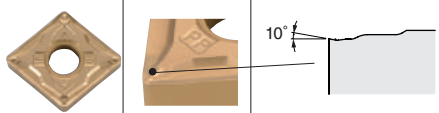
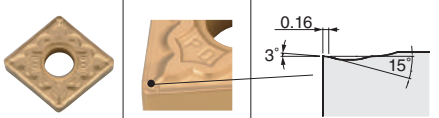
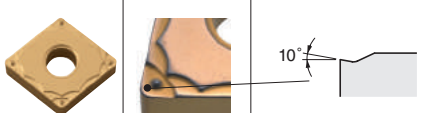
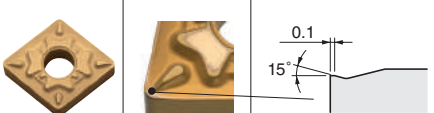
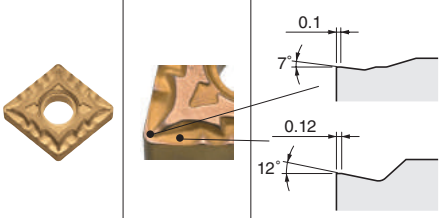
Grades	Carbide			
	GW15	GW25	KW10	SW05
Insert Color				

Chipbreaker Selection (Negative Inserts)

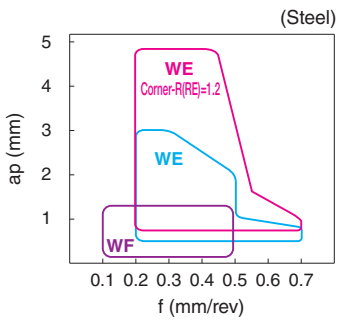
Steel

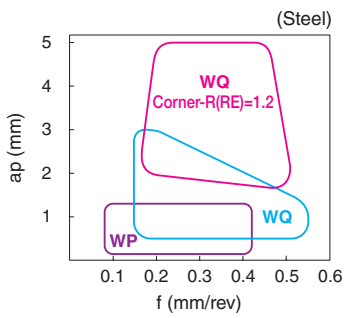
1 Molded Chipbreaker

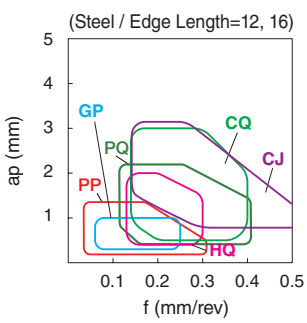
Cutting Range	Name	Design	Advantages
Finishing (With Wiper Edge)	WF		·Wiper insert ·Good chip control in finishing operations ·Excellent surface roughness by controlling adhesion ·Less cutting force due to sharp cutting edge
Finishing (With Wiper Edge)	WP		·Wiper insert ·Good chip control at small machining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

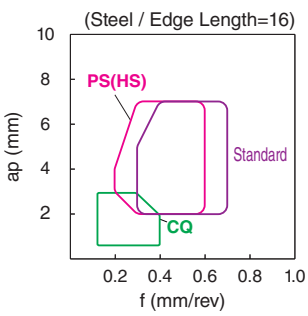
Cutting Range	Name	Design	Advantages
Finishing	PP		·3-step dot structure realizes stable chip control at a wide range of feed rate ·Less cutting force due to sharp cutting edge and smooth rake face
Finishing - Medium	PQ		·Stable chip control in a wide feed rate range by breaking chips effectively ·The 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

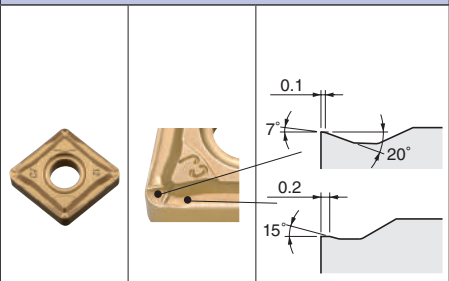
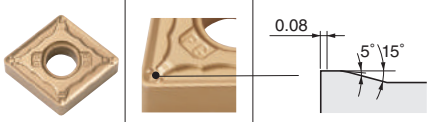
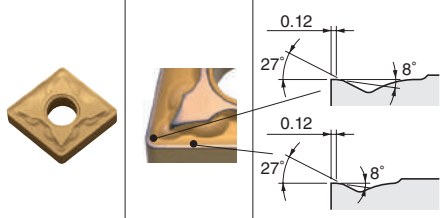
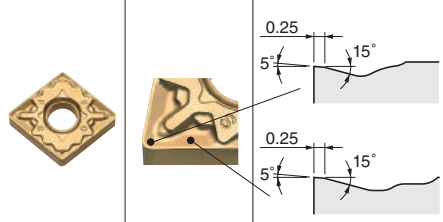
Applicable Chipbreaker Range (ap indicates radius)

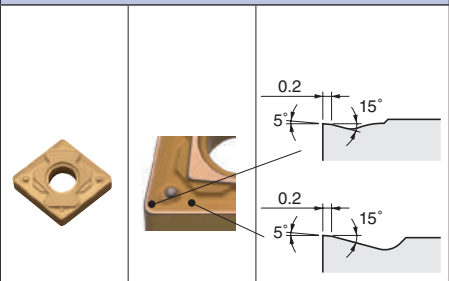
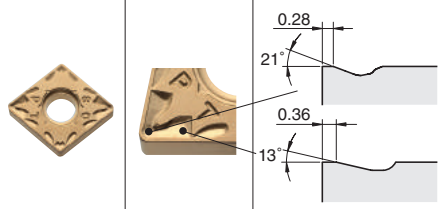
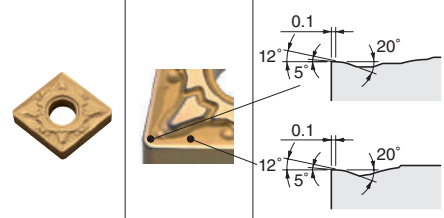
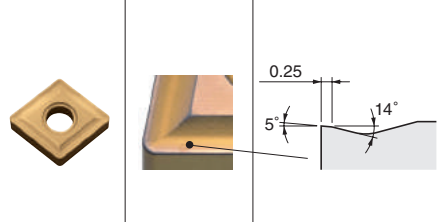




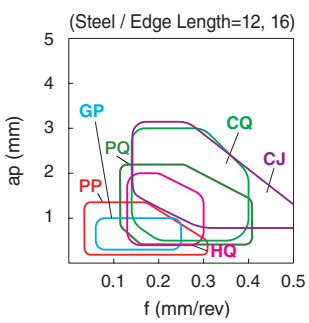


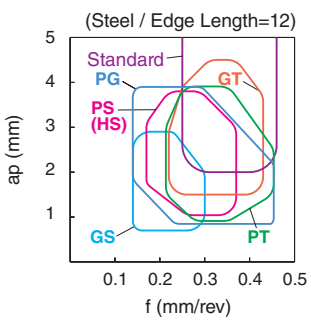


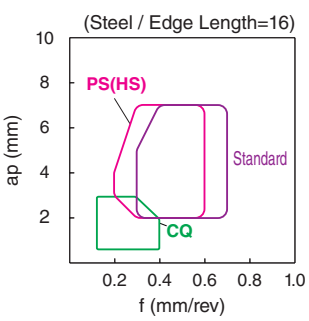
Cutting Range	Name	Design	Advantages
Finishing - Medium (Up Facing)	CJ		·Improved chip curing at small machining and high feed rate machining ·Improved chip evacuation at copying and up facing
Medium - Roughing	PG		·Stable machining with good balance of edge sharpness and strength ·Prevent chip clogging 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
Medium - Roughing	PS		·General purpose chipbreaker ·More stable due to large contact surface

Cutting Range	Name	Design	Advantages
Medium - Roughing	HS		·General purpose chipbreaker ·Applicable to copying
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)



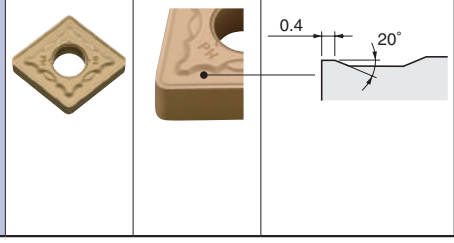


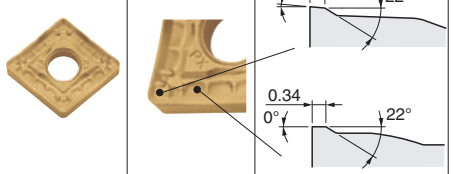


Chipbreaker Selection (Negative Inserts)

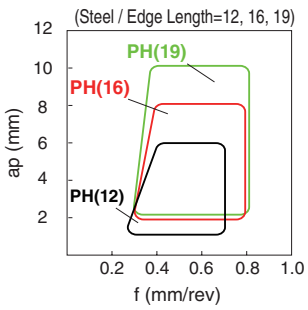
Steel

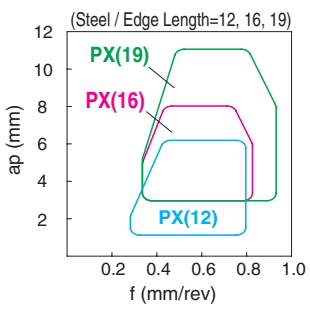
1 Molded Chipbreaker

Cutting Range	Name	Design	Advantages
Roughing	PH		·For roughing of steel ·Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge

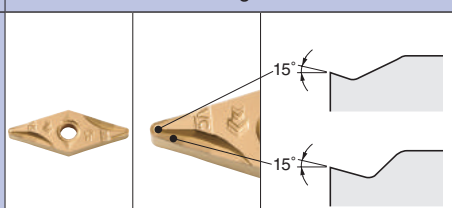
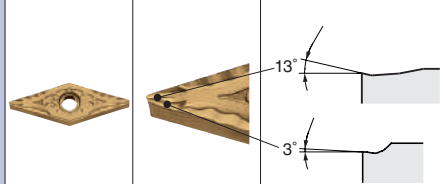
Cutting Range	Name	Design	Advantages
Single-sided Roughing (High Feed Rate)	PX		·Roughing and high feed rate operation ·Low cutting force chipbreaker

Applicable Chipbreaker Range (ap indicates radius)

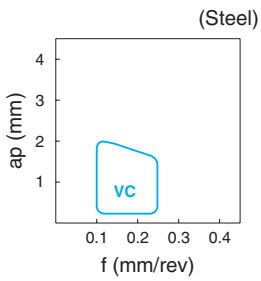


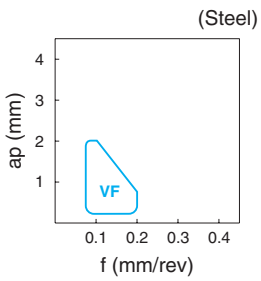


Steel (Copying / Undercutting , Varied ap)

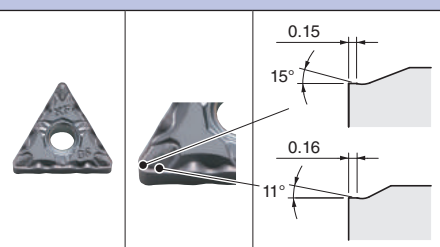
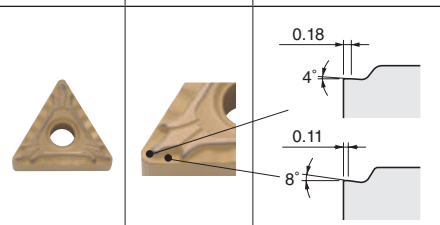
Cutting Range	Name	Design	Advantages
Finishing - Medium	VC		·Handed chipbreaker for copying ·Good chip control at varied ap because of the large space on the main cutting edge side
Finishing - Medium	VF		·Good chip control at varied ap such as copying and undercutting

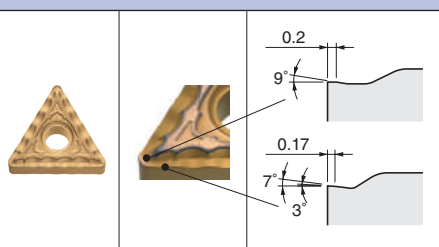
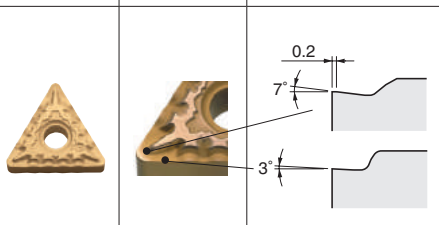
Applicable Chipbreaker Range (ap indicates radius)





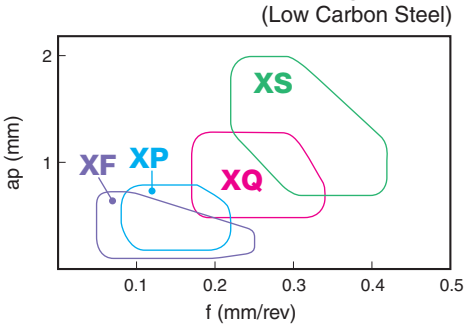
Low Carbon Steel (Pipe / Rolled Plate / Rolled Steel)

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 when finishing due to sharp cutting and special design

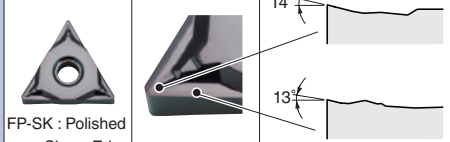
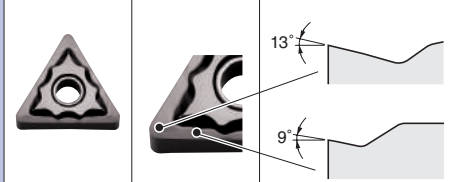
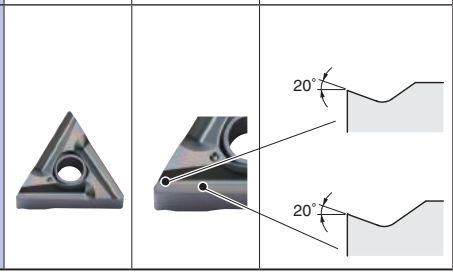
Cutting Range	Name	Design	Advantages
Medium	XQ		·Consistent chip breaking at medium machining due to moderate rake face and special design
Roughing	XS		·Consistent chip breaking when roughing due to special rake face and rake angle design

Applicable Chipbreaker Range (ap indicates radius)

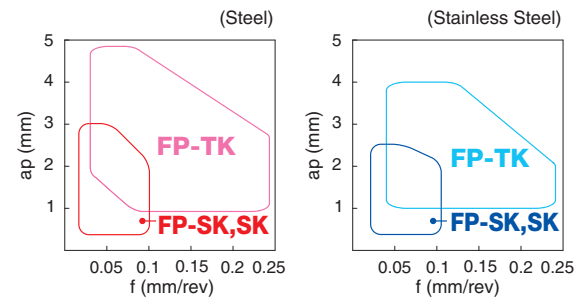
(Low Carbon Steel)

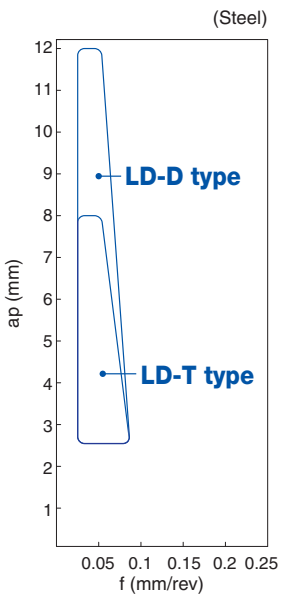


Steel / Stainless Steel (for automatic lathe)

Cutting Range	Name	Design	Advantages
Finishing - Medium	SK	 FP-SK : Polished Sharp Edge -SK : Honed	·For finishing to medium 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		·For medium to large ap in automatic lathes (When machining workpieces of medium to large dia.) ·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

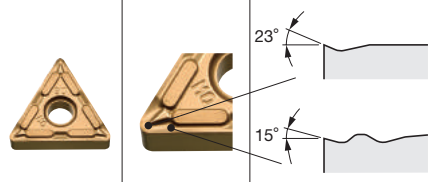
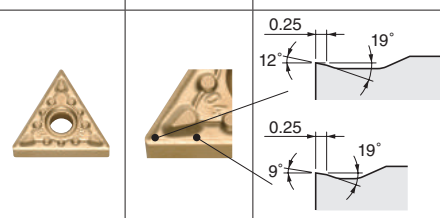
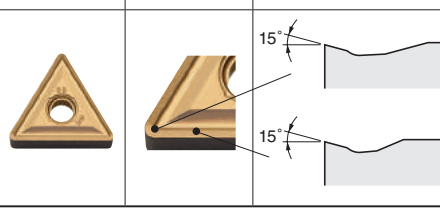
Applicable Chipbreaker Range (ap indicates radius)

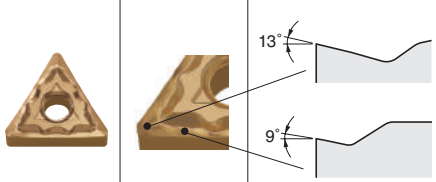
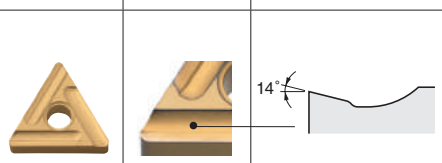




Chipbreaker Selection (Negative Inserts)

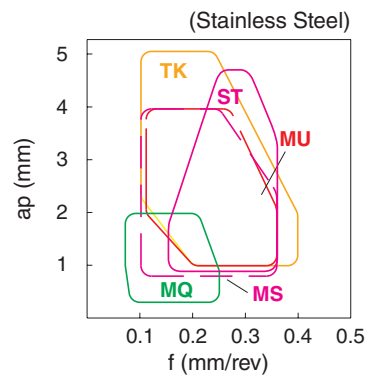
Stainless Steel / Heat-Resistant Alloys / Titanium Alloy

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

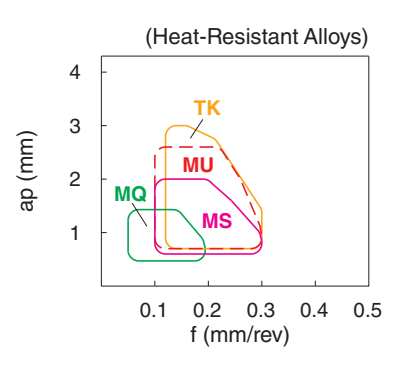
Stainless Steel

Applicable Chipbreaker Range (ap indicates radius)



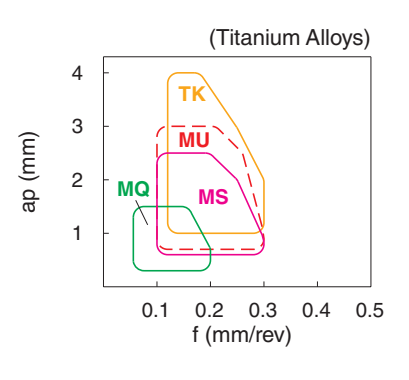
Heat-Resistant Alloys

Applicable Chipbreaker Range (ap indicates radius)

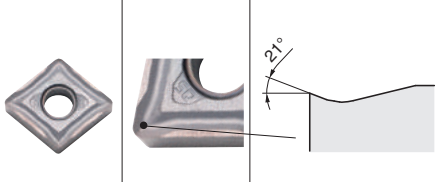
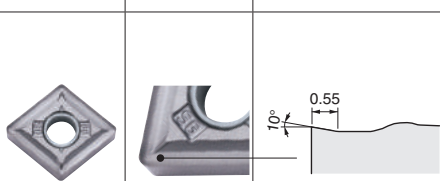


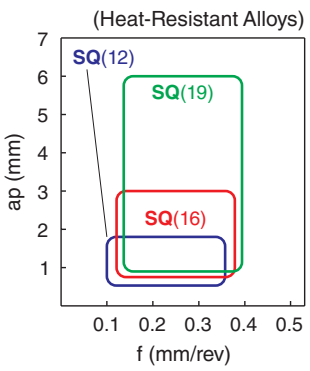
Titanium Alloys

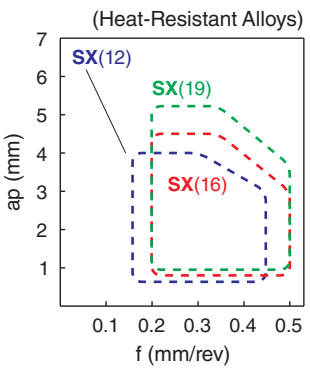
Applicable Chipbreaker Range (ap indicates radius)

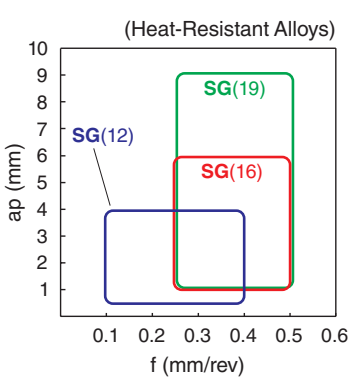


Heat-Resistant Alloys

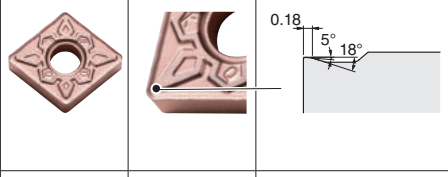
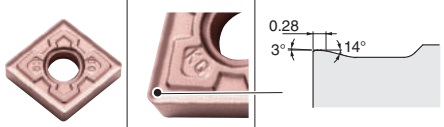
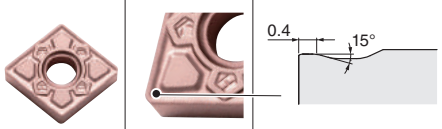
Cutting Range	Name	Design	Advantages
Finishing - Medium	SQ		·Effective for burr suppression and reducing notching by slant cutting edge (inclined in (-) direction)
Roughing	SG		·Provides well-balanced edge strength and cutting force reduction to maintain stable machining at high-load cutting ·Shallow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



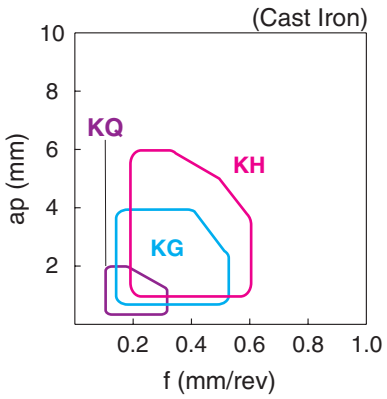




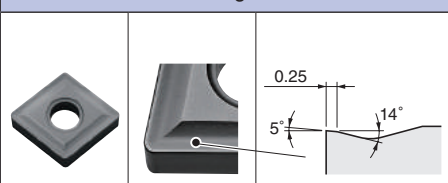
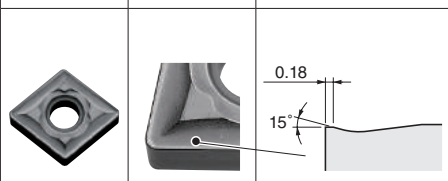
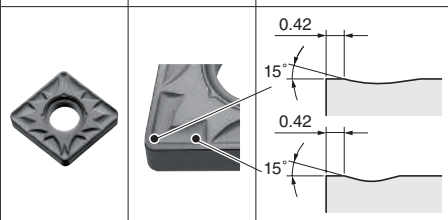
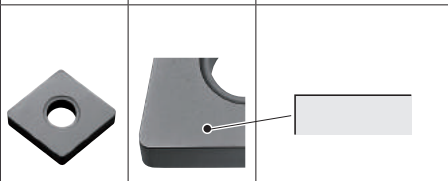
Cast Iron (K series)

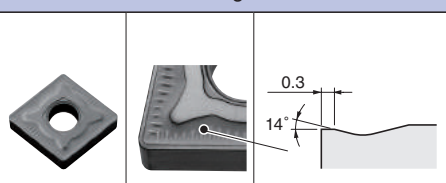
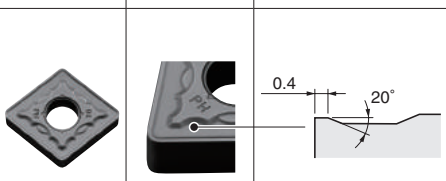
Cutting Range	Name	Design	Advantages
Sharp Cutting Oriented	KQ		·Sharp cutting chipbreaker ·Edge geometry is suitable for workpieces that require sharpness such as thin-walled
Roughing	KG		·Excellent balance of sharpness and strength ·Realized stability at continuous machining
Roughing	KH		·Good for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

● **Applicable Chipbreaker Range (ap indicates radius)**

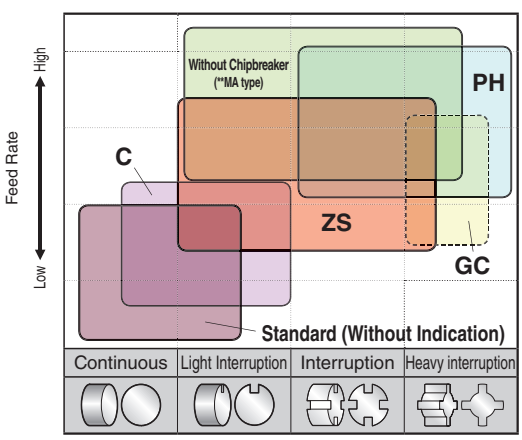


Cast Iron

Cutting Range	Name	Design	Advantages
Sharp Cutting Oriented	Standard (Without Indication)		·Standard chipbreaker for continuous to light interrupted machining of cast iron (Low cutting force)
	C		·High feed rate chipbreaker for continuous to light interrupted machining of cast iron
	ZS		·Standard chipbreaker for light interrupted to interrupted machining of cast iron (Stability oriented)
	Without Chipbreaker		·High feed rate chipbreaker for light interrupted to interrupted machining of cast iron

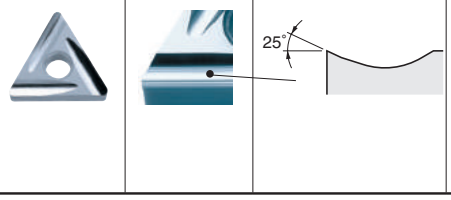
Cutting Range	Name	Design	Advantages
Stability Oriented	GC		·Chipbreaker for heavy interrupted machining of cast iron (Tough edge chipbreaker)
	PH		·Chipbreaker for roughing of cast iron ·Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge

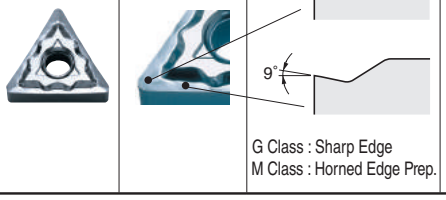
Chipbreaker Selection (Negative Inserts)



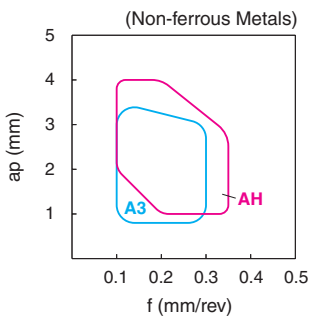
Chipbreaker Selection (Negative Inserts)

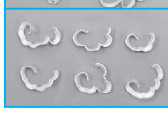
Non-ferrous Metals

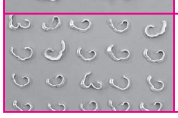
Cutting Range	Name	Design	Advantages
Finishing - Medium	A3		·Large rake angle and smooth surface ·Good chip control and less adhesion

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)

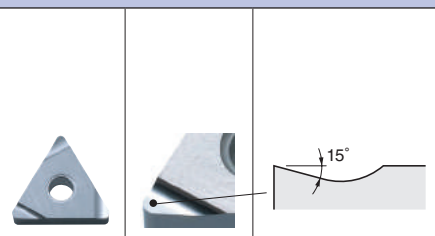
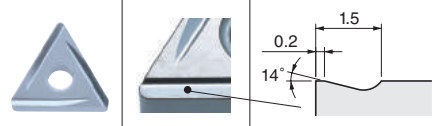
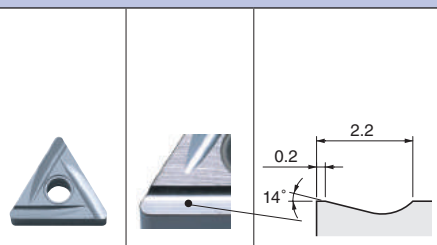
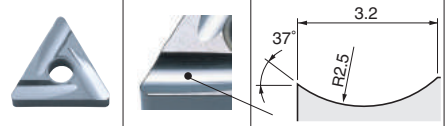


A3 Chipbreaker	
	ap=2mm f=0.2mm/rev
	ap=2mm f=0.3mm/rev

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

Steel

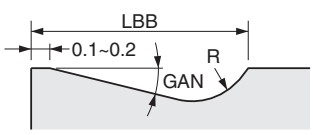
2 Ground Chipbreaker

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
Medium - Roughing	C		·Suitable for general purpose machining at feed rate 0.20 to 0.35mm/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

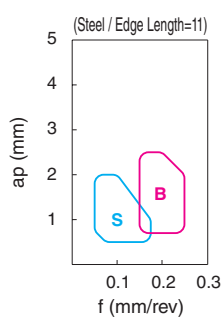
(1) Lower cutting force and improve edge
(2) Improved adhesion resistance
(3) Improved dimension accuracy and finishing surface accuracy
(4) Controlled chip evacuation direction

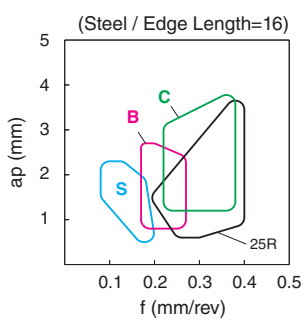
Specification of B, C and parallel ground chipbreaker

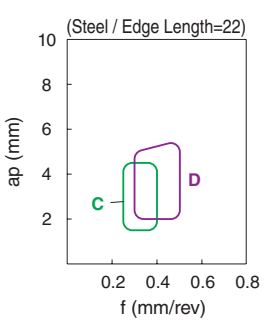


Insert Type	Size	Chipbreaker Name	LBB	GAN	R
CNGG	09,12	Without Indication (Similar to C)	2.2	14°	1.0
WNGG	06	Without Indication (Similar to C)	2.2	14°	1.0
TNGG	11,16	B	1.5	14°	0.5
	16,22	C	2.2	14°	1.0
DNGG	11,15	Without Indication (Similar to C)	2.5	14°	2.0
VNGG	16	Without Indication (Similar to B)	1.5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



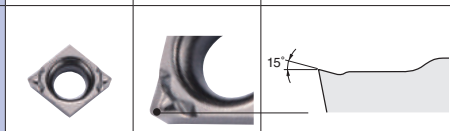
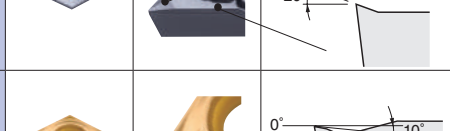
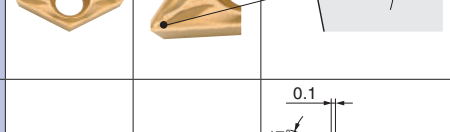


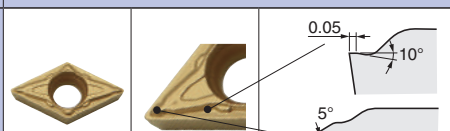
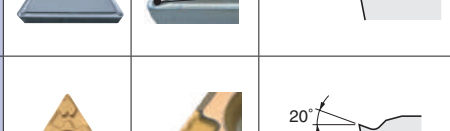
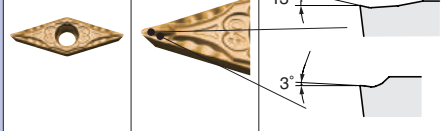
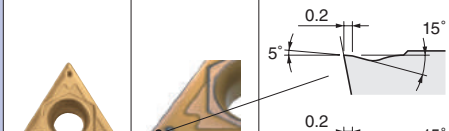
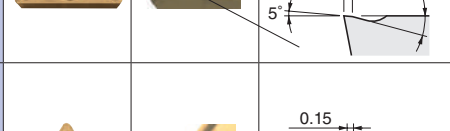


Chipbreaker Selection (Positive Inserts)

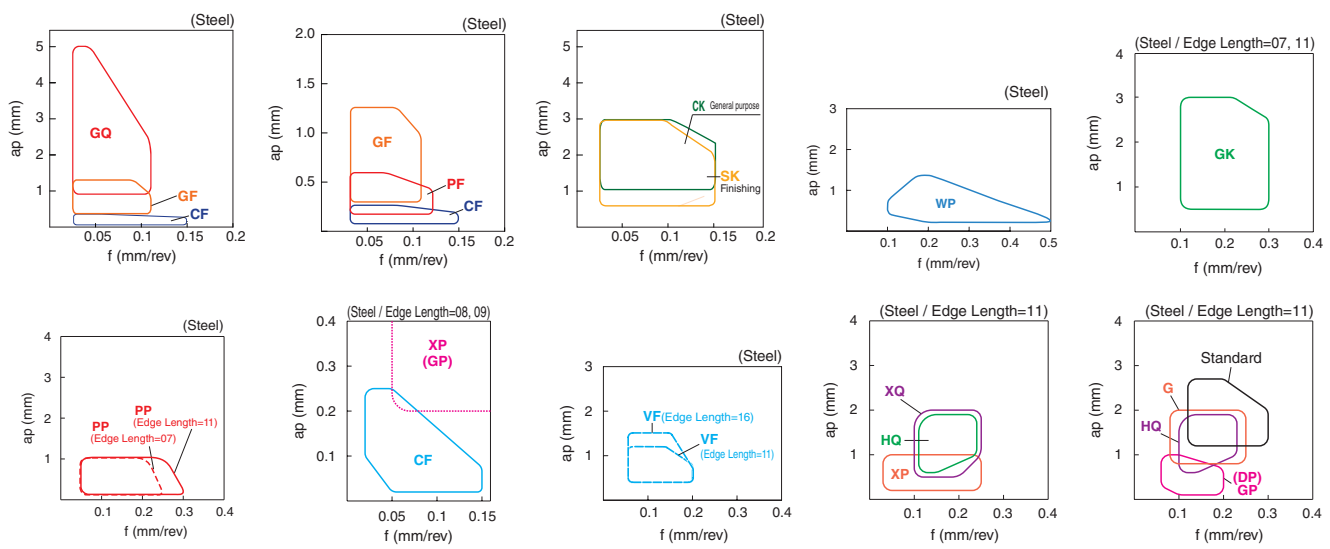
Steel

1 Molded Chipbreaker

Cutting Range	Name	Design	Advantages
Minute ap	CF		·Available for minute ap (0.02 to 0.2mm) finishing
Finishing	PF		·Chipbreaker for finishing boring available from ap 0.15~0.6mm
Finishing	GF		·Chips fragmented in small pieces in machining of small ap
Finishing - Medium	GQ		·Enables machining over a wide range of conditions by using the optimum chipbreaker width according to the cutting depth
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 feed machining ·Reduces surface finish galling
Finishing - Medium	GK		·Good chip evacuation at wide range by breaker dot and wide chip pocket

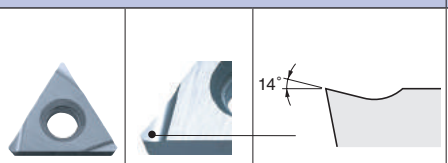
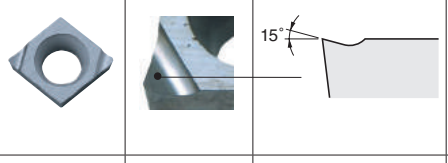
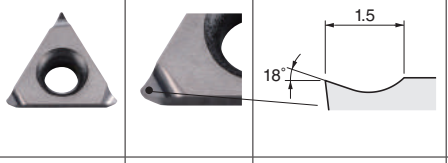
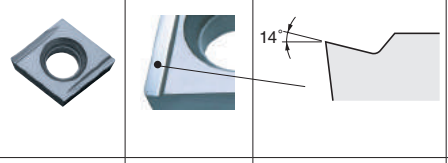
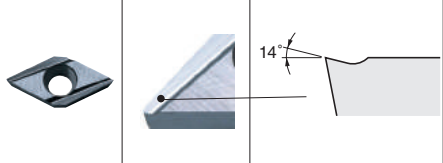
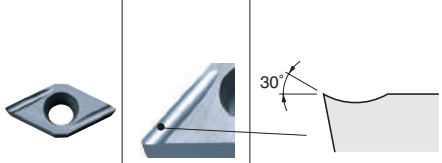
Cutting Range	Name	Design	Advantages
Finishing	PP		·1st Recommendation at steel finishing ·Stable chip control in a wide feed rate range ·Stable tool life due to special edge design with sharpness and improved strength
Finishing	DP		·Consistent chip breaking performance for finishing
Finishing	GP		·Good 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 at medium machining
Medium	Standard (Without Indication)		·Strong edge chipbreaker for medium machining range

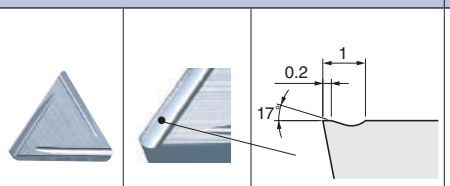
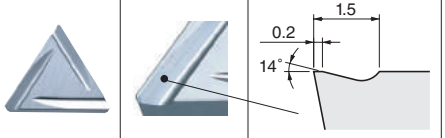
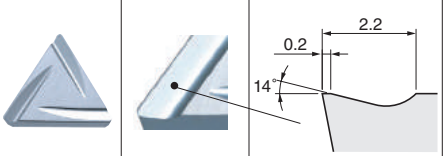
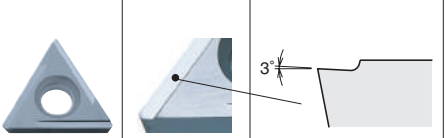
Applicable Chipbreaker Range (ap indicates radius)



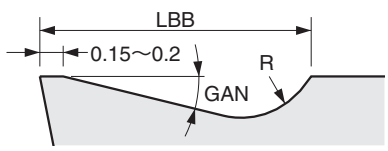
Steel

2 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

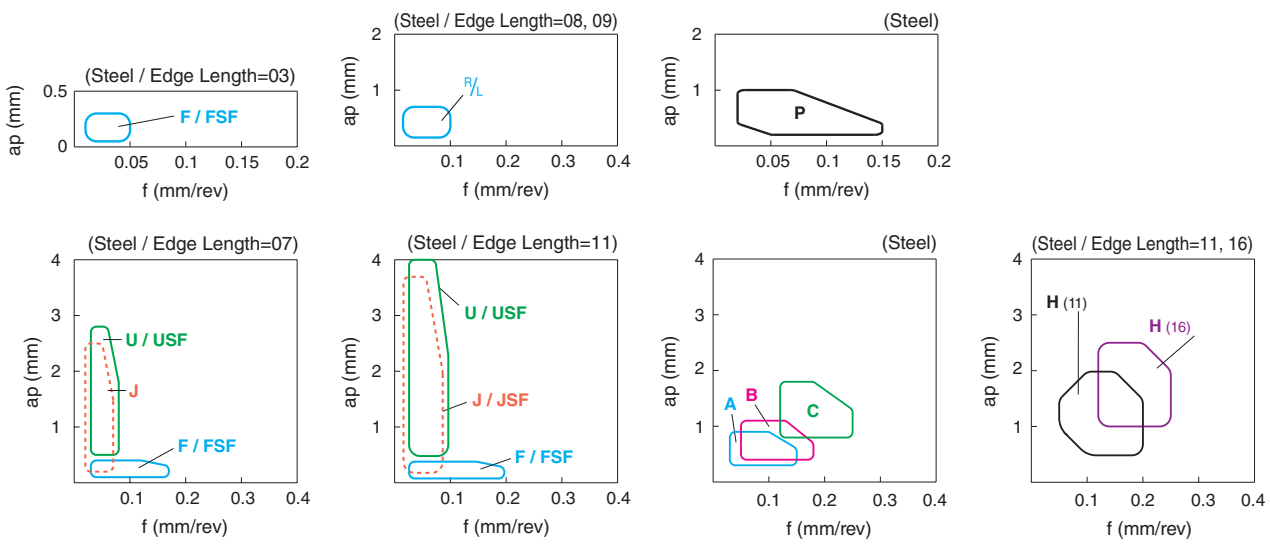
Cutting Range	Name	Design	Advantages
Finishing	A		·Large rake angle and low cutting force ·Narrow chipbreaker width and consistent chip control
Finishing - Medium	B		·General purpose chipbreaker for medium machining ·Good balance between chip control and sharp cutting
Medium	C		·Applicable to high load 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



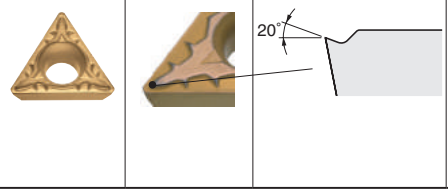
Insert Type	Size	Chipbreaker Name	LBB	GAN	R
TPGR	11	A	1.0	17°	0.5
	11,16	B	1.5	14°	0.5
	16	C	2.2	14°	1.0
SPGR	09	Without Indication (Similar to B)	1.5	14°	0.5
	12	Without Indication (Similar to C)	2.2	14°	1.0

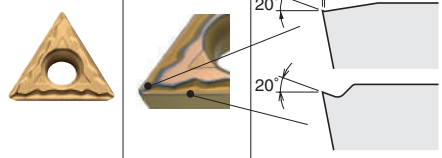
Applicable Chipbreaker Range (ap indicates radius)



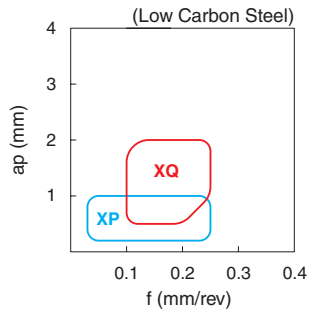
Chipbreaker Selection (Positive Inserts)

Low Carbon Steel (Pipe / Rolled Plate / Rolled Steel)

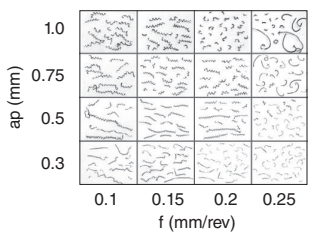
Cutting Range	Name	Design	Advantages
Finishing	XP		·Consistent chip breaking performance even for low carbon steel and sticky material

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

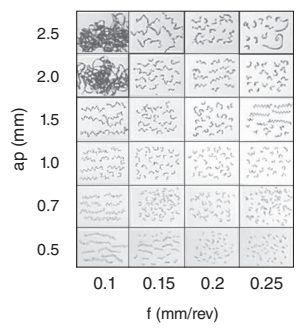
Applicable Chipbreaker Range (ap indicates radius)



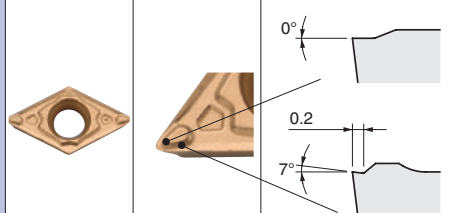
XP Chipbreaker



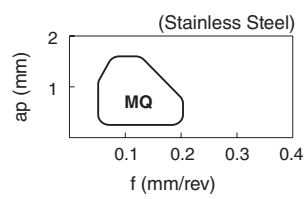
XQ Chipbreaker



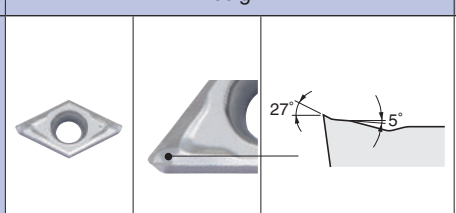
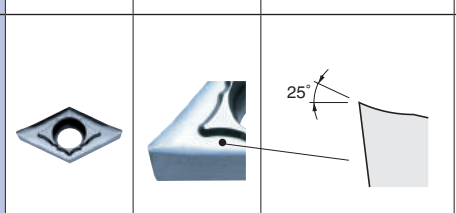
Stainless Steel

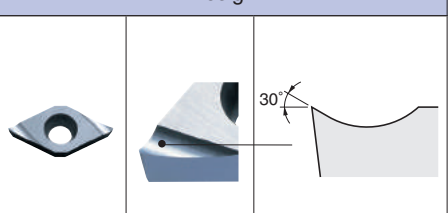
Cutting Range	Name	Design	Advantages
Finishing	MQ		·Good chip evacuation at internal turning ·Small curled chips ·Prevents chip entanglement with toolholder and stabilizes surface roughness

Applicable Chipbreaker Range (ap indicates radius)

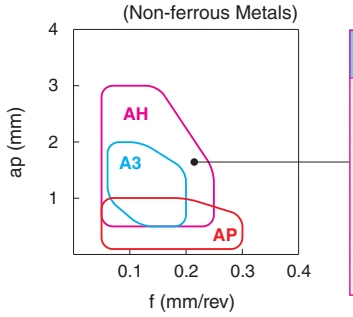


Non-ferrous Metals

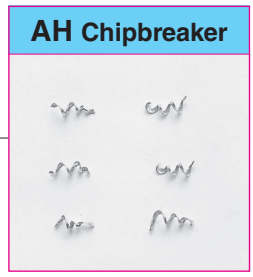
Cutting Range	Name	Design	Advantages
Finishing	AP		·Curved edge and shape of chipbreaker lead good chip control for finishing ·Sharp cutting edge provides excellent surface finish ·Polished chipbreaker
Finishing - Medium	AH		·Positive chip groove and good chip control with low cutting force ·Polished 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)



AH Chipbreaker



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 are shown here.

Insert's ISO Classification of usage (Workpiece materials are written on the right side)

Insert Dimensions

Insert Grades (Red characters mean new)

Insert Corner-R(RE)

Insert Shape

Insert descriptions

Explanation for inserts

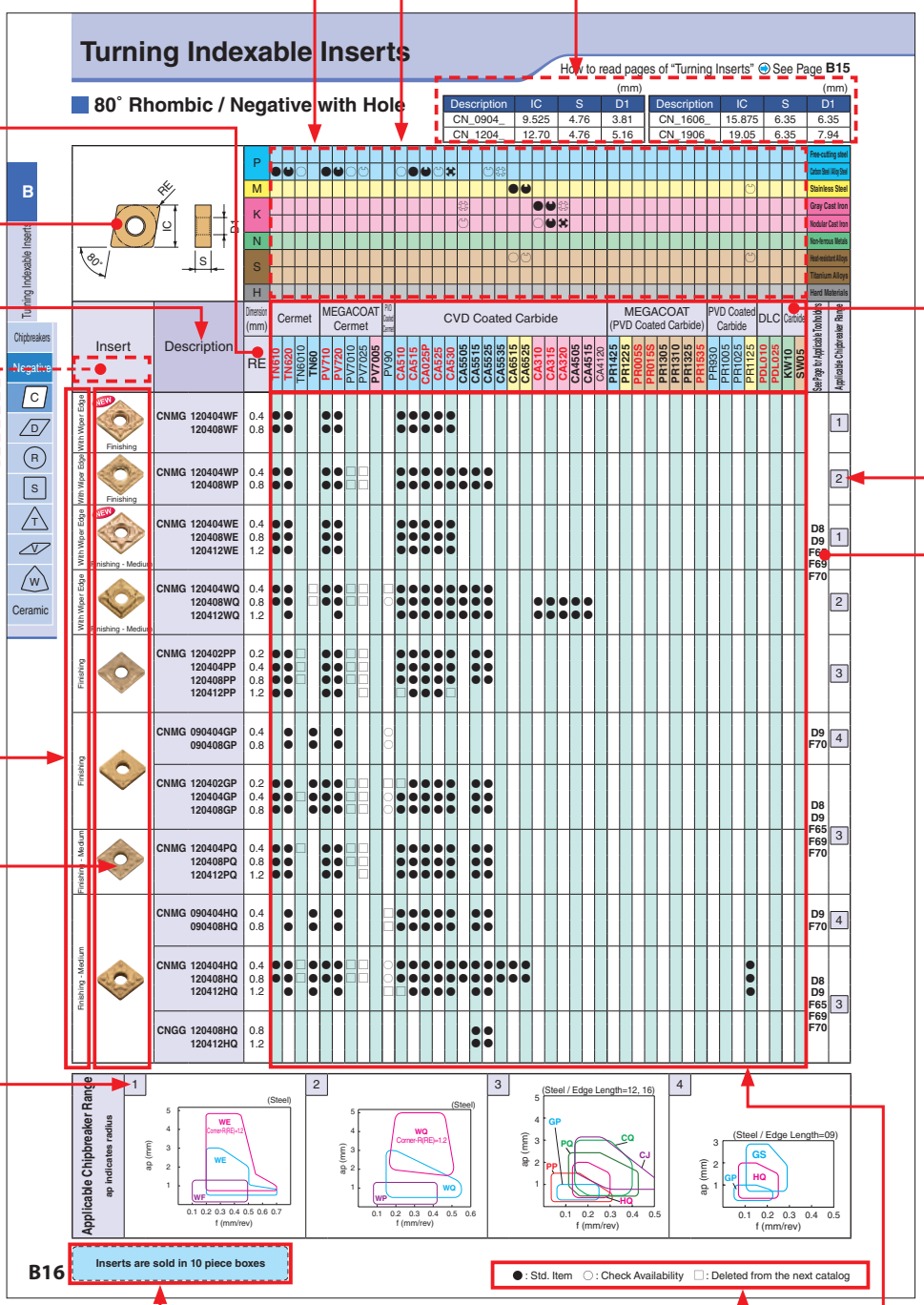
Example

Handed Insert shows Right-hand	Handed Insert shows Left-hand
	

Application / Recommended workpiece material

Insert Appearance Image See Page B3 for insert color.

Applicable chipbreaker range map No.



Applicable chipbreaker range map No.

Purchase unit

Stock

Applicable Toolholder

Applicable chipbreaker range map No.

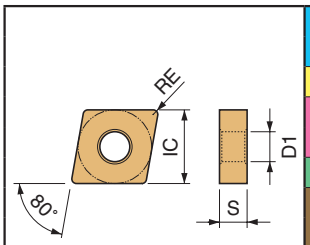
80° Rhombic / Negative with Hole

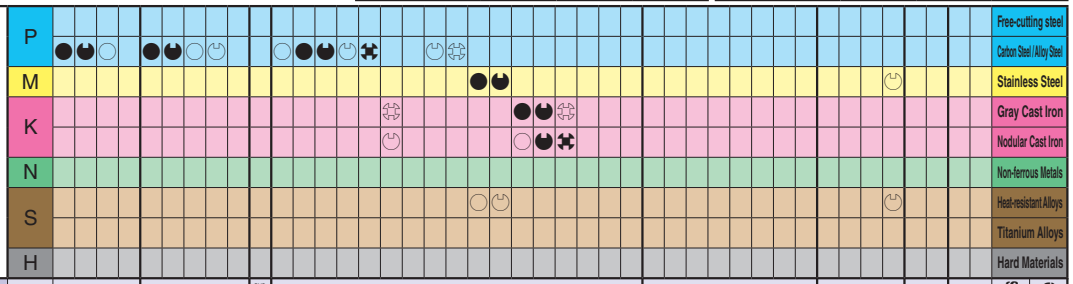
(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



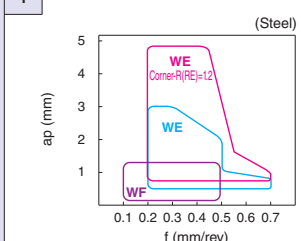


Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	NEW Finishing	CNMG 120404WF	0.4	●	●			●	●					●	●	●	●	●																												D8 D9 F65 F69 F70	1
		120408WF	0.8	●	●			●	●					●	●	●	●	●																													
With Wiper Edge	Finishing	CNMG 120404WP	0.4	●	●			●	●	□	□			●	●	●	●	●	●	●	●																										2
		120408WP	0.8	●	●			●	●	□	□			●	●	●	●	●	●	●	●																										
With Wiper Edge	NEW Finishing - Medium	CNMG 120404WE	0.4	●	●			●	●					●	●	●	●	●																													1
		120408WE	0.8	●	●			●	●					●	●	●	●	●																													
		120412WE	1.2	●	●			●	●					●	●	●	●	●																													
With Wiper Edge	Finishing - Medium	CNMG 120404WQ	0.4	●	●		□	●	●	□	□		□	●	●	●	●	●	●	●	●																										2
		120408WQ	0.8	●	●		□	●	●	□	□		○	●	●	●	●	●	●	●	●				●	●	●	●	●																	
		120412WQ	1.2		●				●					●	●	●	●	●	●	●	●				●	●	●	●	●																	
Finishing		CNMG 120402PP	0.2	●	●	□		●	●	□	□			●	●	●	●	●		●	●																										3
		120404PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																										
		120408PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																										
		120412PP	1.2	●	●			●	●		□			□	●	●	●	□																												
Finishing		CNMG 090404GP	0.4		●		●		●				○																																	4
		090408GP	0.8		●		●		●				○																																		
Finishing		CNMG 120402GP	0.2	●	●		●	●	●	□	□		□	□	●	●	●		●	●																										D8 D9 F65 F69 F70	3
		120404GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●		●	●																										
		120408GP	0.8	●	●		●	●	●	□	□		○	●	●	●	●		●	●																										
Finishing - Medium		CNMG 120404PQ	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																										
		120408PQ	0.8	●	●			●	●	□	□			●	●	●	●	●		●	●																										
		120412PQ	1.2	●	●			●	●		□			●	●	●	●	●		●	●																										
Finishing - Medium		CNMG 090404HQ	0.4		●		●		●				□	●	●	●	●	●		●	●																										4
		090408HQ	0.8		●		●		●				□	●	●	●	●	●		●	●																										
		CNMG 120404HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																						D8 D9 F65 F69 F70	3
		120408HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																							
		120412HQ	1.2		●		●		●				□	●	●	●	●		●	●																										
		CNGG 120408HQ	0.8																●	●																										4
		120412HQ	1.2																●	●																										

Applicable Chipbreaker Range

ap indicates radius

1



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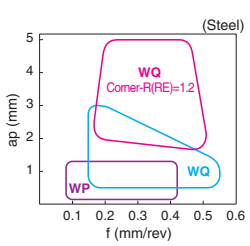

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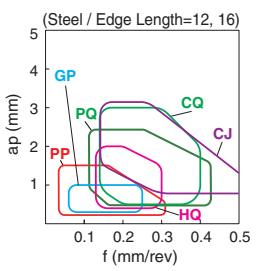

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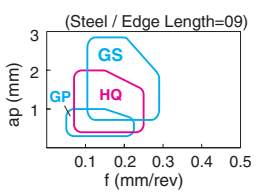


Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" ➡ See Page B15

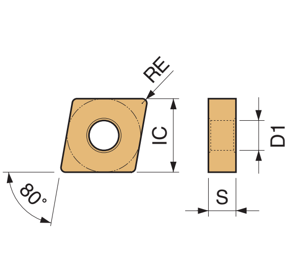
80° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



Material		TN610	TN620	TN6010	PV710	PV720	PV7010	PV7025	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5525	CA5535	CA6515	CA6525	PR1535	PR1125
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 Alloys																○	◔	◕	◔
S	Titanium Alloys																		◕	
H	Hard Materials																			

Cermet: TN610, TN620, TN6010, TN60 · MEGACOAT Cermet: PV710, PV720, PV7010, PV7025, PV7005 · PVD Coated Cermet: PV90 · CVD Coated Carbide: CA510 … CA4120 · MEGACOAT (PVD Coated Carbide): PR1425 … PR1535 · PVD Coated Carbide: PR930, PR1005, PR1025, PR1125 · DLC: PDL010, PDL025 · Carbide: KW10, SW05

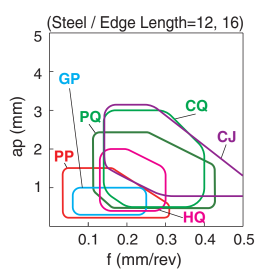
Application	Insert	Description	RE (mm)	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525
Finishing - Medium / Up Facing		CNMG 120404CQ	0.4	●	●	□		●	●	□	□		□	●	●	●	●	●	●	●	●	●		
		120408CQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●		
		120412CQ	1.2										○	●	●	●	●	●	●	●	●	●		
		CNMG 160608CQ	0.8											●	●	●	●	●		●	●			
		160612CQ	1.2											●	●	●	●	□			●			
Finishing - Medium / Up Facing		CNMG 120408CJ	0.8											●	●	●	●	●	●	●	●	●		
		120412CJ	1.2											●	●	●	●	●		●	●	●		
		CNMG 160612CJ	1.2											□	●	●	●	●		●				
		160616CJ	1.6											□	●	●	●	●		●				
Medium		CNMG 120404TN-V	0.4				●																	
		120408TN-V	0.8				●																	
Medium - Roughing		CNMG 090404GS	0.4		●		●		●				□	□	●	●	●	●		●	●			
		090408GS	0.8		●		●		●				□	●	●	●	●	●		●	●			
		CNMG 120404GS	0.4		●				●		□		○	●	●	●	●	●		●	●			
		120408GS	0.8		●				●		□		○	●	●	●	●	●		●	●			
		120412GS	1.2											□	●	●	●	●		●	●			
Medium - Roughing		CNMG 120404PG	0.4	●	●			●	●					●	●	●	●	●						
		120408PG	0.8	●	●			●	●					●	●	●	●	●						
		120412PG	1.2		●				●					●	●	●	●	●						
		120416PG	1.6											●	●	●	●	●						
Medium - Roughing		CNMG 120404PS	0.4		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●
		120408PS	0.8		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●
		120412PS	1.2								□			●	●	●	●	●	●	●	●	●	●	●
		120416PS	1.6											□	●	●	●	●		●	●	●		●
		CNMG 160612PS	1.2											●	●	●	●	●	●	●	●	●	●	●
		160616PS	1.6											●	●	●	●	●	●	●	●	●		
Medium - Roughing		CNMG 120404HS	0.4				○						○							○	○			
		120408HS	0.8				○						○							○	○			
		120412HS	1.2				□													○	○			
		120416HS	1.6																	○	○			

Description	RE (mm)	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
CNMG 120404CQ	0.4																							D8 D9 F65 F69 F70	
120408CQ	0.8																								
120412CQ	1.2																								
CNMG 160608CQ	0.8																							D9	1
160612CQ	1.2																								
CNMG 120408CJ	0.8																							D8 D9 F65 F69 F70	
120412CJ	1.2																								
CNMG 160612CJ	1.2																							D9	
160616CJ	1.6																								
CNMG 120404TN-V	0.4																							D8 D9 F65 F69 F70	2
120408TN-V	0.8																								
CNMG 090404GS	0.4																							D9 F70	B16 4
090408GS	0.8																								
CNMG 120404GS	0.4																								
120408GS	0.8																								
120412GS	1.2																								
CNMG 120404PG	0.4														●									D8 D9 F65 F69 F70	
120408PG	0.8														●										
120412PG	1.2														●										
120416PG	1.6																								
CNMG 120404PS	0.4																		●						3
120408PS	0.8																		●						
120412PS	1.2																		●						
120416PS	1.6																								
CNMG 160612PS	1.2																							D9	
160616PS	1.6																								
CNMG 120404HS	0.4																							D8 D9 F65 F69 F70	
120408HS	0.8																								
120412HS	1.2																								
120416HS	1.6																								

Applicable Chipbreaker Range

ap indicates radius

1



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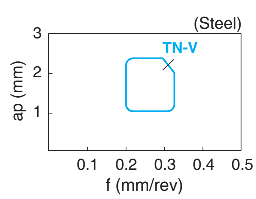

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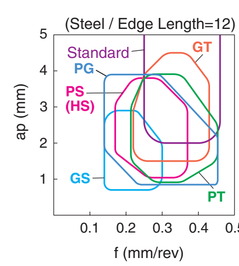
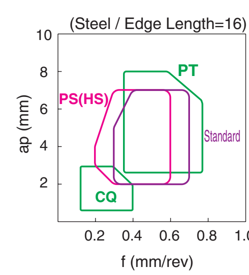




● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

A Insert Grades · B Turning Indexable Inserts · C CBN & PCD Tools · D External · E Small Parts Machining · F Boring · G Grooving · H Cut-off · J Threading · K Drilling · L Solid Tools · M Milling · N Tools for Turning Mill · P Spare Parts · R Technical Information · T Index

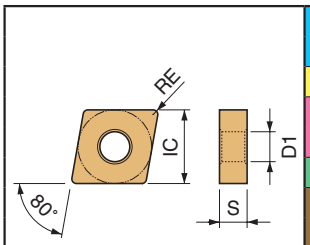
80° Rhombic / Negative with Hole

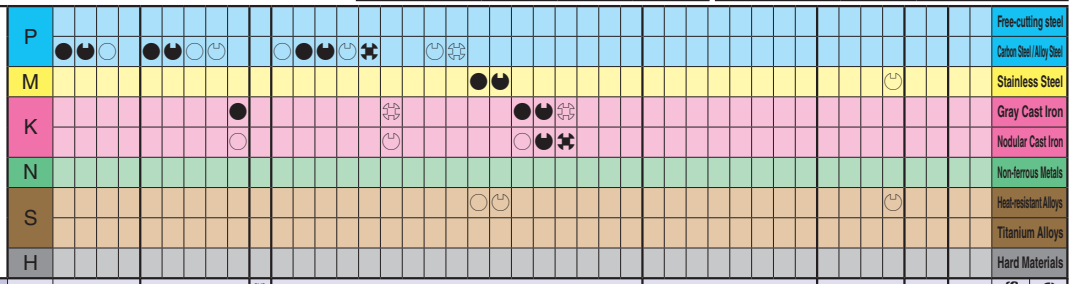
(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



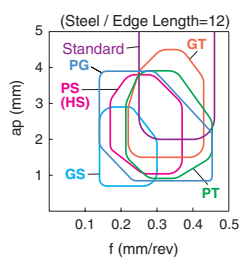


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing / High Feed Rate	CNMG 120408PT	0.8											●	●	●	●	●	●	●	●	●	●	●																						D8 D9 F65 F69 F70	
	CNMG 120412PT	1.2											●	●	●	●	●	●	●	●	●	●	●																							
	CNMG 160608PT	0.8											●	●	●	●	●	●	●	●	●	●	●																						D9	
	CNMG 160612PT	1.2											●	●	●	●	●	●	●	●	●	●	●																							
	CNMG 160616PT	1.6											●	●	●	●	●		●	●	●		●																							
Medium - Roughing / High Feed Rate	CNMG 120408GT	0.8								□		○	●	●	●	●	●		●	●																										1
	CNMG 120412GT	1.2										□	●	●	●	●	□		●	●																									
Roughing	CNMG 120404	0.4	●	●	□	●	●	□	□	●	□		●	●	●	●	●	●	●			●	●	●	●	●	●	□																D8 D9 F65 F69 F70	
	CNMG 120408	0.8	●	●	□	●	●	□	□	●	□		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□																	
	CNMG 120412	1.2				●				●			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□																	
	CNMG 120416	1.6																●						●	●	●	●	□																	
Roughing	CNMG 160608	0.8													●	●	□	●	●	●				●	●	●		●																D9	2
	CNMG 160612	1.2													●	●	●	●	●	●				●	●	●		●																	
	CNMG 160616	1.6																		●																									
	CNMG 190608	0.8																●						●	●	●	●	●	□																
	CNMG 190612	1.2											●	●	●	●	●		●	●	●			●	●	●	●	●	□																
	CNMG 190616	1.6											□	□	●	●	●		●	●	●			●	●	●		●																
Roughing	CNMG 120408PH	0.8											●	●	●	●	●		●	●	●			●	●	●	●	●																D8 D9 F65 F69 F70	
	CNMG 120412PH	1.2											●	●	●	●	●		●	●	●			●	●	●	●	●																
	CNMG 120416PH	1.6											□	●	●	●	●		●	●	●			●	●	●		●																
	CNMG 160608PH	0.8											●	●	●	●	●		●	●																										3
	CNMG 160612PH	1.2											●	●	●	●	●		●	●	●			●	●	●	●	●																
	CNMG 160616PH	1.6											●	●	●	●	●		●	●				●	●	●	●	●																
	CNMG 190608PH	0.8											●	●	●	●	●		●	●																									D9	
	CNMG 190612PH	1.2											●	●	●	●	●		●	●	●																							
	CNMG 190616PH	1.6											●	●	●	●	●			●	●																							
	CNMG 190624PH	2.4											●	●	●	●	●																											

Applicable Chipbreaker Range

ap indicates radius

1



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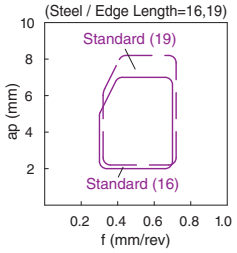

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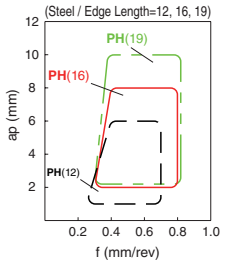


Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

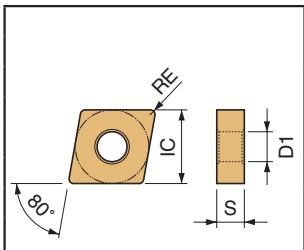
80° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

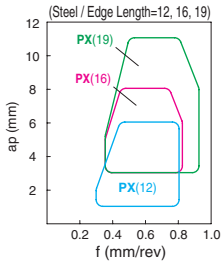
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Single Sided / Roughing / High Feed Rate		CNMM 120408PX	0.8										●	●	●	●	●		●	●	●																										D8 D9 F65 F69 F70	
		120412PX	1.2										●	●	●	●	●		●	●	●																											
		120416PX	1.6												●	●	□																														
		CNMM 160608PX	0.8										□	□	●	●	●			●	●																										1
		160612PX	1.2										□	□	●	●	●			●	●																										
		160616PX	1.6										□	●	●	●	●		●	●	●																										
		CNMM 190608PX	0.8												●	●	□			●																										D9	
		190612PX	1.2										□	●	●	●	●		●	●	●																										
		190616PX	1.6										□	●	●	●	●		●	●	●																										
		190624PX	2.4												●	●	●		●	●	●																										
Low Carbon Steel	Finishing / Small ap	CNMG 120404XF	0.4	●	●	□		●	●	□	□																																		
		120408XF	0.8	●	●			●	●	□	□																																		
Low Carbon Steel	Finishing	CNMG 120404XP	0.4	●	●		●	●	●	□	□		□	□	●	●	●		●	●																										
		120408XP	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●		●	●																								D8 D9 F65 F69 F70	2
Low Carbon Steel	Medium	CNMG 120404XQ	0.4	●	●		●	●	●	□	□		○	●	●	●	●	●	●	●	●																										
		120408XQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																										
Low Carbon Steel	Roughing	CNMG 120408XS	0.8	●	●		●	●	●		□		○	●	●	●	●	●		●	●																										
Finishing - Medium	Sharp Edge / Polished	CNGG 120402MFP-SK	<0.2																											●	●					●									D8 D9 E42 F65 F69 F70	3
		120404MFP-SK	<0.4																											●	●					●										
Medium - Roughing	Sharp Edge / Polished	CNGG 120404FP-TK	0.4																											●	●					●										
		120408FP-TK	0.8																											●	●					●										
Heat-Resistant Alloys	Medium - Roughing / Sharp Edge	CNGG 120404TK	0.4																															●	●									●	D8 D9 F65 F69 F70	B20
		120408TK	0.8																															●	●									●		1
Stainless Steel	Medium - Roughing	CNMG 120404TK	0.4																			●	●													●	●	●								
		120408TK	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

ap indicates radius

1



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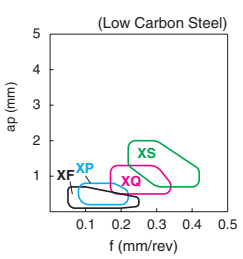

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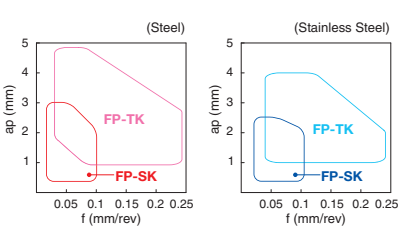


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

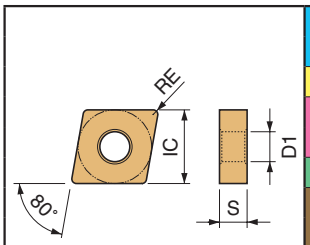
80° Rhombic / Negative with Hole

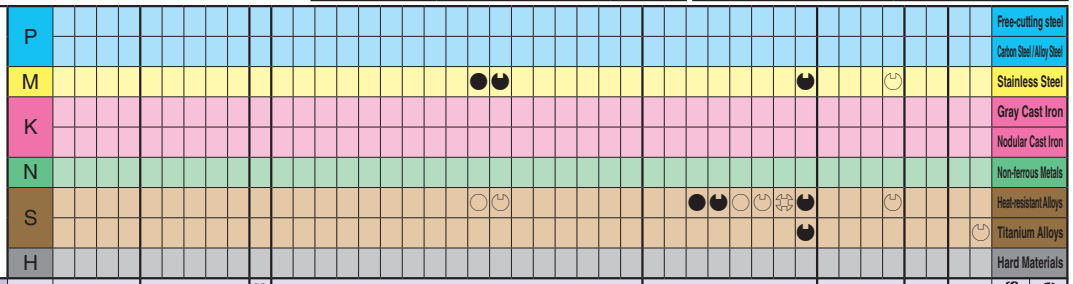
* S Dimension : ( ) indicates SX Chipbreaker (mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76(4.42)	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35(5.96)	6.35
CN_1906_	19.05	6.35(5.93)	7.94



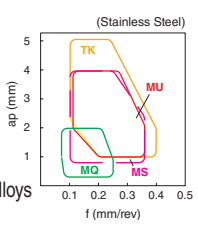


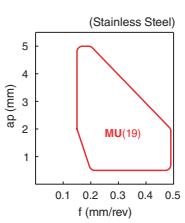
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CVD Coated Carbide CA515	CVD Coated Carbide CA025P	CVD Coated Carbide CA525	CVD Coated Carbide CA530	CVD Coated Carbide CA5505	CVD Coated Carbide CA5515	CVD Coated Carbide CA5525	CVD Coated Carbide CA5535	CVD Coated Carbide CA6515	CVD Coated Carbide CA6525	CVD Coated Carbide CA310	CVD Coated Carbide CA315	CVD Coated Carbide CA320	CVD Coated Carbide CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4120	MEGACOAT (PVD Coated Carbide) PR1425	MEGACOAT (PVD Coated Carbide) PR1225	MEGACOAT (PVD Coated Carbide) PR005S	MEGACOAT (PVD Coated Carbide) PR015S	MEGACOAT (PVD Coated Carbide) PR1305	MEGACOAT (PVD Coated Carbide) PR1310	MEGACOAT (PVD Coated Carbide) PR1325	MEGACOAT (PVD Coated Carbide) PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys	Finishing - Medium	CNMG 120404MQ	0.4																			●	●							●	●	●	●	●	●	●			●			●	D8 D9	1
		CNMG 120408MQ	0.8																			●	●							●	●	●	●	●	●	●			●			●		
Heat-resistant Alloys	NEW Finishing - Medium	CNMG 120404SQ	0.4																											●	●												F65 F69 F70	
		CNMG 120408SQ	0.8																											●	●													
		CNMG 120412SQ	1.2																											●	●													
		CNMG 160612SQ	1.2																											●	●													2
		CNMG 160616SQ	1.6																											●	●													
		CNMG 190612SQ	1.2																											●	●												D9	
		CNMG 190616SQ	1.6																											●	●													
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	CNMG 120404MS	0.4																			●	●							●	●	●	●	●	●	●			●			●	D8 D9 F65 F69 F70	
		CNMG 120408MS	0.8																			●	●							●	●	●	●	●	●	●			●			●		
		CNMG 120412MS	1.2																			●	●							●	●	●	●	●	●	●			●			●		
		CNMG 120416MS	1.6																			□	●							●	●	●	●	●	●				●			●		
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	CNMG 120404MU	0.4																			●	●							●	●	●	●	●	●	●			●			●	F70	1
		CNMG 120408MU	0.8																			●	●							●	●	●	●	●	●	●			●			●		
		CNMG 120412MU	1.2																			●	●							●	●	●	●	●	●	●			●			●		
		CNMG 160608MU	0.8																			●	●							●	●			●	●				●				D9	
		CNMG 160612MU	1.2																			●	●							●	●			●	●				●					
		CNMG 160616MU	1.6																			□	●							●	●			●	●				●					
		CNMG 190612MU	1.2																											●	●			●	●									
		CNMG 190616MU	1.6																											●	●			●	●									
Heat-resistant Alloys	NEW Roughing	CNMG 120408SG	0.8																											●	●					●						●	D8 D9 F65 F69 F70	
		CNMG 120412SG	1.2																											●	●					●						●		
		CNMG 160612SG	1.2																											●	●					●						●		3
		CNMG 160616SG	1.6																											●	●					●						●		
		CNMG 190612SG	1.2																											●	●					●						●	D9	
		CNMG 190616SG	1.6																											●	●					●						●		

Applicable Chipbreaker Range

ap indicates radius

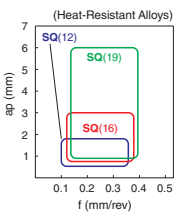
1





Heat-Resistant Alloys
Titanium Alloys
See Page B8

2



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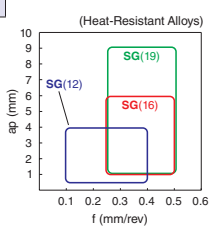


Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

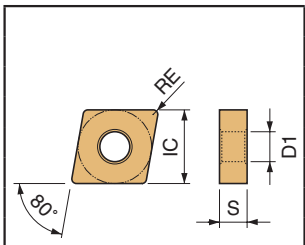
80° Rhombic / Negative with Hole

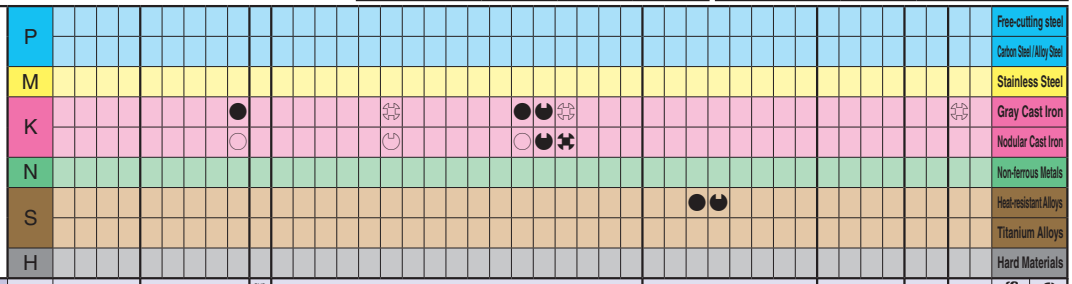
(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94





Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Single Sided / Heat-Resistant Alloys	NEW	CNMM 1204XR-SX	-																												●●																	
		CNMM 1204XL-SX	-																												●●																	
		CNMM 1606XR-SX	-																												●●																	
		CNMM 1606XL-SX	-																												●●																	
		CNMM 1906XR-SX	-																												●●																	
	Roughing	CNMM 1906XL-SX	-																												●●																	
Cast Iron	NEW	CNMG 120404KQ	0.4																					●●	●●	●●																				
	Sharp Cutting Oriented	CNMG 120408KQ	0.8																					●●	●●	●●																				
		CNMG 120412KQ	1.2																					●●	●●	●●																				
Cast Iron	NEW	CNMG 120404KG	0.4																					●●	●●	●●																				
	Roughing	CNMG 120408KG	0.8																					●●	●●	●●																				
		CNMG 120412KG	1.2																					●●	●●	●●																				
Cast Iron	NEW	CNMG 120408KH	0.8																					●●	●●	●●																				
	Roughing	CNMG 120412KH	1.2																					●●	●●	●●																				
		CNMG 120416KH	1.6																					●●	●●	●●																				
Cast Iron		CNMG 120404C	0.4																●					●●	●●	●●	●●	●●	□																	
		CNMG 120408C	0.8																●					●●	●●	●●	●●	●●	□																	
		CNMG 120412C	1.2																●					●●	●●	●●	●●	●●	□																	
	Roughing	CNMG 120416C	1.6																●					●●	●●	●●	●●	●●	□																	
		CNMG 160612C	1.2																					●●	●●	●●	●●	●●	□																	
Cast Iron		CNMG 120408ZS	0.8																●					●●	●●	●●	●●	●●	□																	
	Roughing	CNMG 120412ZS	1.2																●					●●	●●	●●	●●	●●	□																	
Cast Iron		CNMG 120408GC	0.8																●					●●	●●	●●	●●	●●	□																	
	Roughing	CNMG 120412GC	1.2																					●●	●●	●●	●●	●●	□																	
Cast Iron		CNGA 120404	0.4									●																															●				
		CNGA 120408	0.8									●																															●				
	Without Chipbreaker	CNMA 120404	0.4									●							●					●●	●●	●●	●●	●●	□															●				
		CNMA 120408	0.8									●							●					●●	●●	●●	●●	●●	□															●				
		CNMA 120412	1.2																●					●●	●●	●●	●●	□	□																	
		CNMA 120416	1.6																●					●●	●●	●●	□	●●	□																	

D8 D9 F65 F69 F70 — Applicable Chipbreaker Range: 1

D8 D9 F65 F69 F70 — Applicable Chipbreaker Range: 2

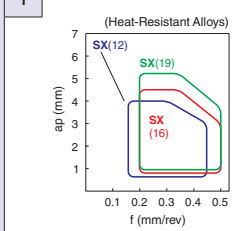
D9 — Applicable Chipbreaker Range: 3

D8 D9 F65 F69 F70 — Applicable Chipbreaker Range: -

Applicable Chipbreaker Range

ap indicates radius

1



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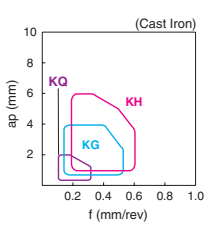

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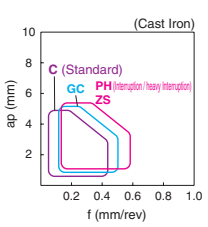


● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

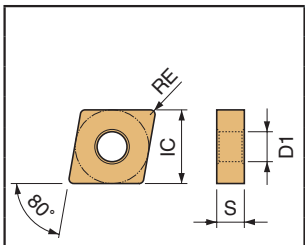
80° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



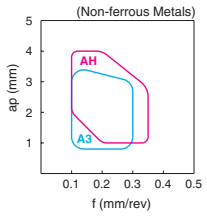
P M K N S H — Free-cutting steel; Carbon Steel / Alloy Steel; Stainless Steel; Gray Cast Iron; Nodular Cast Iron; Non-ferrous Metals; Heat-resistant Alloys; Titanium Alloys; Hard Materials

Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals — Finishing - Medium / Sharp Edge	CNGG 120404R-A3	0.4																																													
	CNGG 120404L-A3	0.4																																														
	CNGG 120408R-A3	0.8																																													
	CNGG 120408L-A3	0.8																																													
Non-ferrous Metals — Medium - Roughing / Sharp Edge	CNGG 120404AH	0.4																																												D8 D9 F65 F69 F70	1
	CNGG 120408AH	0.8																																												
Non-ferrous Metals — Medium - Roughing	CNMG 120404AH	0.4																																											
	CNMG 120408AH	0.8																																											
Finishing — Surface Roughness Oriented / Sharp Edge	CNGG 090402R-S	0.2	●	●	□	●	●	●				□																																D9 F70	
	CNGG 090402L-S	0.2	●	●	□	●	●	●																																				
	CNGG 090404R-S	0.4	●	●	□	●	●	●																																				
	CNGG 090404L-S	0.4	●	●	□	●	●	●																																				
	CNGG 090408R-S	0.8	●		□		●																																				
	CNGG 090408L-S	0.8	●		□		●																																				
Medium	CNGG 090404L	0.4																																													
	CNGG 090408L	0.8																																												
	CNGG 120404R	0.4	●	●	□	●	●	●																																						2
	CNGG 120404L	0.4	●	●	□	●	●	●																																				
	CNGG 120408R	0.8	●	●	□	●	●	●																																				
	CNGG 120408L	0.8	●	●		●	●	●																																				
Medium - Roughing — Low cutting force	CNGG 120404R-25R	0.4	●	●	□	●	●	●																																				
	CNGG 120404L-25R	0.4	●	●	□	●	●	●																																				
	CNGG 120408R-25R	0.8	●	●	□	●	●	●																																				
	CNGG 120408L-25R	0.8	●	●		●	●	●																																				
Medium - Roughing	CNGG 120404Z	0.4				●																																							

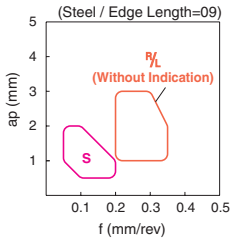
Applicable Chipbreaker Range

ap indicates radius

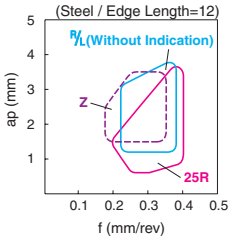
1 (Non-ferrous Metals)



2 (Steel / Edge Length=09)



(Steel / Edge Length=12)



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

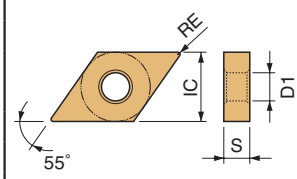
55° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	4.35	5.16



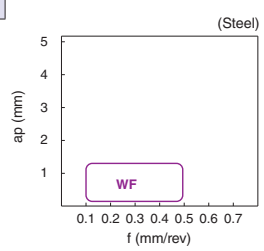
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	DNMX 150404WF	0.4	●	●			●	●					●	●	●	●	●																													D12 D13 F66 F72 F73	1
	150408WF	0.8	●	●			●	●					●	●	●	●	●																															
	150412WF	1.2	●	●			●	●					●	●	●	●	●																															
	DNMX 150604WF	0.4	●	●			●	●					●	●	●	●	●																													D12 D13 F66	
	150608WF	0.8	●	●			●	●					●	●	●	●	●																															
	150612WF	1.2	●	●			●	●					●	●	●	●	●																															
Finishing	DNMG 150402PP	0.2	●	●	□		●	●	□	□			●	●	●	●	●		●	●																									D12 D13 F66 F72 F73	
	150404PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																											
	150408PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																											
	150412PP	1.2	●	●			●	●		□			●	●	●	●	●		●	●																											
	DNMG 150602PP	0.2	●	●			●	●	□	□			□	●	●	●	□			●																									D12 D13 F66	
	150604PP	0.4	●	●	□		●	●	□	□			●	●	●	●	□		●	●																											
	150608PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●																											
	150612PP	1.2	●	●			●	●		□			□	□	●	●	□																													
Finishing	DNMG 110404GP	0.4		●		●		●				○	●	●	●	●	●		●	●																									D13 F71	
	110408GP	0.8		●		●		●				○	●	●	●	●	□			●																											
	DNMG 150402GP	0.2	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●																									D12 D13 F66 F72 F73	2
	150404GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																											
	150408GP	0.8	●	●		●	●	●	□	□		○	●	●	●	●	●	●	●	●																											
	DNMG 150602GP	0.2	●		□	●		●	□																																			D12 D13 F66	
	150604GP	0.4	●		□	●		●	□																																					
	150608GP	0.8	●			●		●	□																																					
Finishing - Medium	DNMG 150404PQ	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																									D12 D13 F66 F72 F73	
	150408PQ	0.8	●	●	□		●	●		□			●	●	●	●	●		●	●																											
	150412PQ	1.2	●	●			●	●		□			●	●	●	●	●		●	●																											
	DNMG 150604PQ	0.4	●	●	□		●	●		□			●	●	●	●	●			●																									D12 D13 F66	
	150608PQ	0.8	●	●	□		●	●		□			●	●	●	●	●		●	●																											
	150612PQ	1.2	●	●			●	●		□			□	●	●	●	●																													

Applicable Chipbreaker Range

ap indicates radius

1



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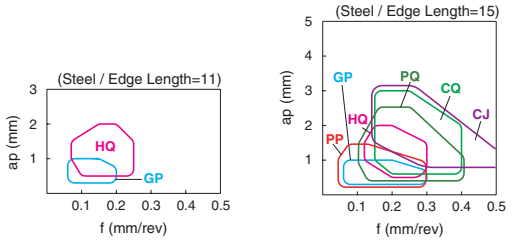


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" ➡ See Page B15

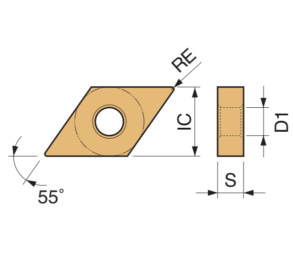
55° Rhombic / Negative with Hole

(mm)

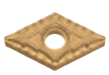
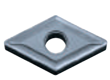
Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	6.35	5.16



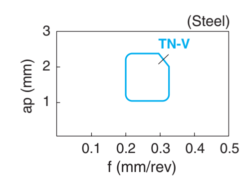
Material		TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05
P	Free-cutting steel																																											
P	Carbon Steel / Alloy Steel	●	◐	○		●	◐	○	◔			○	●	◐	◔	✲			◔	✲																								
M	Stainless Steel																				●	◐																		◔				
K	Gray Cast Iron																✲																											
K	Nodular Cast Iron																◔																											
N	Non-ferrous Metals																																											
S	Heat-resistant Alloys																				○	◔																		◔				
S	Titanium Alloys																																											
H	Hard Materials																																											

Application	Insert	Description	RE (Dimension (mm))	TN610 (Cermet)	TN620 (Cermet)	TN6010 (Cermet)	TN60 (Cermet)	PV710 (MEGACOAT Cermet)	PV720 (MEGACOAT Cermet)	PV7010 (MEGACOAT Cermet)	PV7025 (MEGACOAT Cermet)	PV7005 (MEGACOAT Cermet)	PV90 (PVD Coated Cermet)	CA510 (CVD Coated Carbide)	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425 (MEGACOAT (PVD Coated Carbide))	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930 (PVD Coated Carbide)	PR1005	PR1025	PR1125	PDL010 (DLC)	PDL025 (DLC)	KW10 (Carbide)	SW05 (Carbide)	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium		DNMG 110402HQ	0.2		●		●		●				□	●	●	●	●	●		●	●																										D13 F71	
		110404HQ	0.4		●		●		●				○	●	●	●	●	●		●	●																											
		DNMG 150404HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●	●																		●					D12 D13 F66 F72 F73	
		150408HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●	●																		●						
		150412HQ	1.2	●	●		●	●	●		□		□	●	●	●	●	●	●	●	●	●																												
		DNMG 150604HQ	0.4	●		□		●		□	□			●	●	●	●	●	●	●	●		●	●																		●					D12 D13 F66	
		150608HQ	0.8	●		□		●		□	□			●	●	●	●	●	●	●	●		●	●																		●						
		150612HQ	1.2	●		□		●		□				□	●	●	●	□		●	●																													
Finishing - Medium / Up Facing		DNMG 150404CQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																											D12 D13 F66 F72 F73	B23 2
		150408CQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																												
		150412CQ	1.2	●	●			●	●		□		○	●	●	●	●	●		●	●	●																												
		DNMG 150604CQ	0.4	●				●		□				●	●	●	●	□		●	●																												D12 D13 F66	
		150608CQ	0.8											●	●	●	●	●	●	●	●																													
		150612CQ	1.2											●	●	●	●	●		●	●																													
Finishing - Medium / Up Facing		DNMG 150408CJ	0.8											●	●	●	●	□		●	●																												D12 D13 F66 F72 F73	
		150412CJ	1.2											□	●	●	●	●		●	●																													
		DNMG 150608CJ	0.8											●	●	●	●	□	●	●	●																												D12 D13 F66	
		150612CJ	1.2											●	●	●	●	●		●	●																													
Medium		DNMG 150404TN-V	0.4				●																																								D12 D13 F66 F72 F73	1
		150408TN-V	0.8				●																																									
Medium - Roughing		DNMG 110404GS	0.4		●		●		●				○	●	●	●	●	●		●	●																										D13 F71	
		110408GS	0.8		●		●		●				○	●	●	●	●	●		●	●																											
		DNMG 150404GS	0.4		●				●		□		□	●	●	●	●	●		●	●																										D12 D13 F66 F72 F73	2
		150408GS	0.8		●				●		□		○	□	●	●	●	●		●	●																											
		150412GS	1.2										○	□	●	●	●	□		●	●																											
		DNMG 150604GS	0.4										□			●	●	●																													D12 D13 F66	
		150608GS	0.8										□			●	●	□																														

Applicable Chipbreaker Range

ap indicates radius

1



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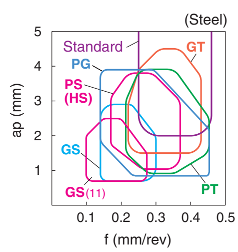


Inserts are sold in 10 piece boxes

●: Std. Item ○: Check Availability □: Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

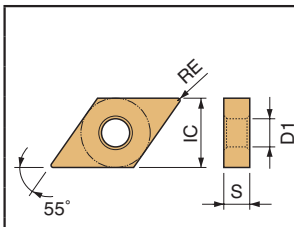
55° Rhombic / Negative with Hole

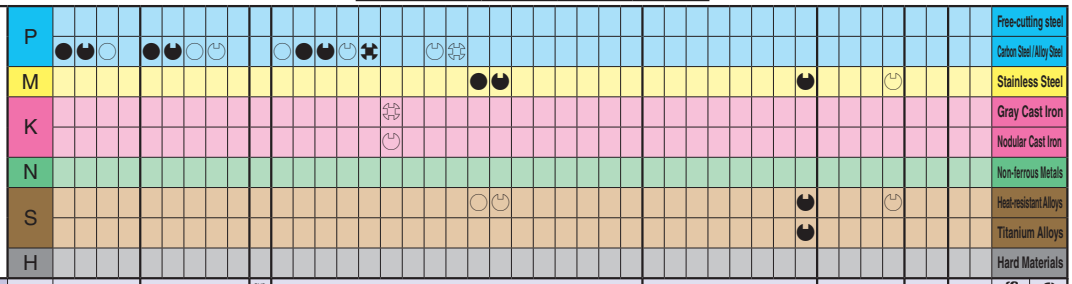
(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	4.76	5.16



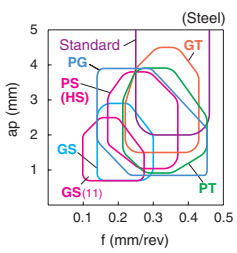


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	DNMG 150404PG	0.4	●	●			●	●					●	●	●	●	●																			●									D12 D13 F66 F72 F73	
	DNMG 150408PG	0.8	●	●			●	●					●	●	●	●	●																			●										
	DNMG 150412PG	1.2		●				●					●	●	●	●	●																			●										
	DNMG 150416PG	1.6											□	●	●	●	●																													
	DNMG 150604PG	0.4	●	●			●	●					●	●	●	●	●																			●									D12 D13 F66	
	DNMG 150608PG	0.8	●	●			●	●					●	●	●	●	●																			●										
	DNMG 150612PG	1.2		●				●					●	●	●	●	●																			●										
	DNMG 150616PG	1.6											●	□	●	□	□																													
Medium - Roughing	DNMG 150404PS	0.4		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																			●		D12 D13 F66 F72 F73	
	DNMG 150408PS	0.8		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																			●			
	DNMG 150412PS	1.2								□			●	●	●	●	●		●	●	●		●																						
	DNMG 150416PS	1.6																	●	●																									
	DNMG 150604PS	0.4			□				□	□			●	●	●	●	●		●	●		●	●																			●		D12 D13 F66	
	DNMG 150608PS	0.8			□				□	□			●	●	●	●	●	●	●	●	●	●	●																			●			
	DNMG 150612PS	1.2			□				□	□			●	●	●	●	●	●	●	●	●	□	●																						
	DNMG 150616PS	1.6											□	●	●	●	●		●	●			●																						
Medium - Roughing	DNMG 150404HS	0.4				○						○		□	○				□	○																								D12 D13 F66 F72 F73	1
	DNMG 150408HS	0.8				○						○		○	○				○	○																									
	DNMG 150412HS	1.2				□														□																									
	DNMG 150604HS	0.4				○						○		□	○				□	○																								D12 D13 F66	
	DNMG 150608HS	0.8				○						○		○	○				○	○																									
	DNMG 150612HS	1.2				□														□																									
Medium - Roughing / High Feed Rate	DNMG 150408PT	0.8											●	●	●	●	●	●	●	●	●		●																					D12 D13 F66 F72 F73	
	DNMG 150412PT	1.2											●	□	●	●	●		●	●			●																						
	DNMG 150608PT	0.8											●	●	●	●	●	●	●	●	●		●																					D12 D13 F66	
	DNMG 150612PT	1.2											●	●	●	●	●	●	●	●	●	●																						
Medium - Roughing / High Feed Rate	DNMG 150408GT	0.8										□	●	●	●	●	●		●	●																								D12 D13 F66 F72 F73	
	DNMG 150412GT	1.2										□	●	□	●	●	□																											
	DNMG 150608GT	0.8											●	●	●	●	●		●	●																								D12 D13 F66	
	DNMG 150612GT	1.2											□	●	●	●	●		●	●																									

Applicable Chipbreaker Range

ap indicates radius

1



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

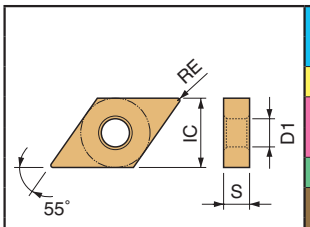
55° Rhombic / Negative with Hole

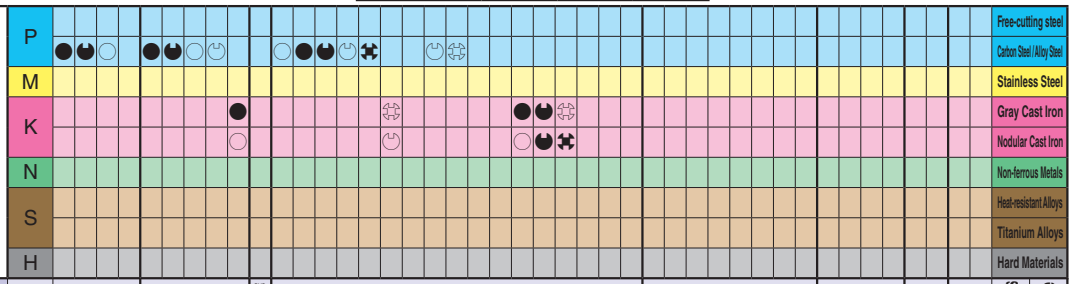
(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	4.35	5.16



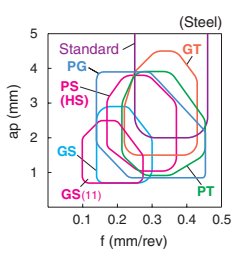


Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Roughing		DNMG 150404	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●			●	●	●	●	●	□																D12 D13 F66 F72 F73	1
		150408	0.8	●	●		●	●	●	□	□		□	●	●	●	●	●	●	●	●	●			●	●	●	●	●	□																	
		150412	1.2									●		●	●	●	●	●		●	●	●			●	●	●	●	●	□																	
		DNMG 150604	0.4											●	●	●	●	●	●	●	●	●			●	●	●	●	●	□																D12 D13 F66	
		150608	0.8									□		●	●	●	●	●		●	●	●			●	●	●	●	●	□																	
		150612	1.2											□	●	●	●	●		●					●	●	●		●	□																	
Roughing		DNMG 150408PH	0.8											●	●	●	●	●		●	●				●	●	●	●	●																	D12 D13 F66 F72 F73	
		150412PH	1.2											□	●	●	●	●		●	●				●	●	●	●	●																	
		150416PH	1.6													●	●	●																											
		DNMG 150608PH	0.8											□	●	●	●	●			●				●	●	●		●																	D12 D13 F66	2
		150612PH	1.2											□	●	●	●	●			●				●	●	●																			
		150616PH	1.6											□	●	●	●	●		●	●																									
Low Carbon Steel / Single Sided / Roughing / High Feed Rate		DNMM 150408PX	0.8													●	●	●			●	●																							D12 D13 F66 F72 F73	
		150412PX	1.2													●	●	●			●																							
		150416PX	1.6													●	□	□																											
		DNMM 150608PX	0.8											●	●	●	●	□			●	●																							D12 D13 F66	
		150612PX	1.2											□	●	●	●	●			●	●																							
		150616PX	1.6													●	●	□			●																									
Low Carbon Steel	Finishing / Small ap	DNMG 150404XF	0.4	●	●	□		●	●	□	□																																D12 D13 F66 F72 F73	3
		150408XF	0.8	●	●	□		●	●	□	□																																	
Low Carbon Steel	Finishing	DNMG 150404XP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																							
		150408XP	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																							
		DNMG 150604XP	0.4	●			●		□																																		D12 D13 F66	
		150608XP	0.8	●			●		□																																			
Low Carbon Steel	Medium	DNMG 150404XQ	0.4	●	●		●	●	●	□	□		○	●	●	●	●	●		●	●																							D12 D13 F66 F72 F73	
		150408XQ	0.8	●	●		●	●	●		□		○	●	●	●	●	●		●	●																							
Low Carbon Steel	Roughing	DNMG 150408XS	0.8	●	●			●	●		□		□	□	●	●	●	●		●	●																							D12 D13 F66 F72 F73	

Applicable Chipbreaker Range

ap indicates radius

1



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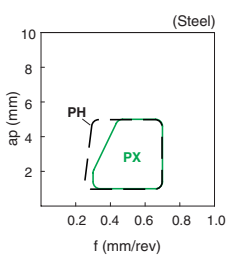

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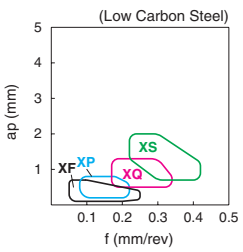


Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

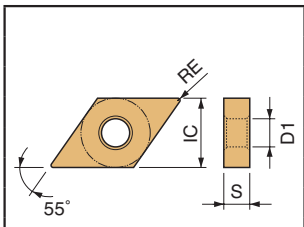
55° Rhombic / Negative with Hole

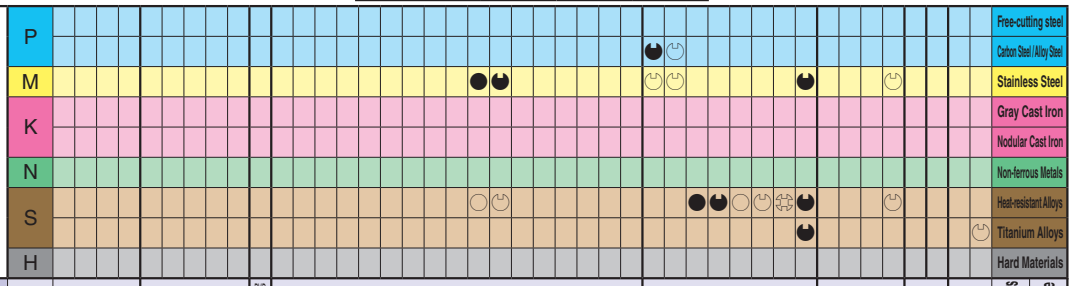
(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	4.76	5.16





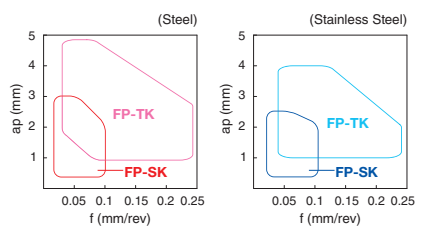
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	Sharp Edge / Polished	DNGG 150402MFP-SK 150404MFP-SK	<0.2 <0.4																											●● ●●	●● ●●					●											1
Large ap	NEW	DNMG 150402R-LD 150404R-LD	0.2 0.4																											● ●						● ●								D12 D13 F66 F72 F73		2
Medium - Roughing	Sharp Edge / Polished	DNGG 150404FP-TK 150408FP-TK	0.4 0.8																											●● ●●	●● ●●					● ●											1
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing / Sharp Edge	DNGG 150404TK 150408TK	0.4 0.8																																●● ●●										●			
		DNGG 150604TK 150608TK	0.4 0.8																																●● ●●										● ●		D12 D13 F66	
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	DNMG 150404TK 150408TK	0.4 0.8																			●● ●●	●● ●●												●● ●●	●● ●●	●● ●●				● ●					D12 D13 F66 F72 F73	3
		DNMG 150604TK 150608TK	0.4 0.8																			●● ●●	●● ●●												●● ●●	●● ●●	●● ●●				● ●					D12 D13 F66	
Stainless Steel / Heat-Resistant Alloys	Finishing - Medium	DNMG 150404MQ 150408MQ	0.4 0.8																			●● ●●	●● ●●											●● ●●	●● ●●	●● ●●	●● ●●				● ●				D12 D13 F66 F72 F73	
		DNMG 150604MQ 150608MQ	0.4 0.8																			●● ●●	●● ●●											●● ●●	●● ●●	●● ●●	●● ●●				● ●				D12 D13 F66	

· 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

ap indicates radius

1



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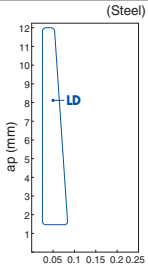

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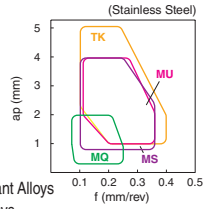


Heat-Resistant Alloys
Titanium Alloys
See Page B8

● : Std. Item

Inserts are sold in 10 piece boxes

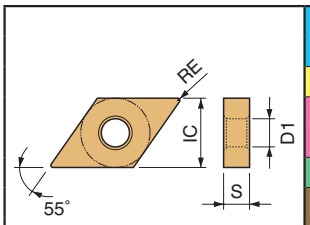
55° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	6.35	5.16

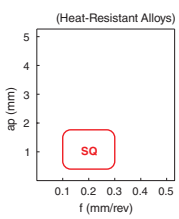


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Heat-resistant Alloys	DNMG 150404SQ	0.4																											●	●															D12 D13 F66 F72 F73	1
NEW	DNMG 150408SQ	0.8																											●	●																	
	DNMG 150412SQ	1.2																											●	●																	
Finishing - Medium	DNMG 150604SQ	0.4																											●	●															D12 D13 F66	
	DNMG 150608SQ	0.8																											●	●																	
	DNMG 150612SQ	1.2																											●	●																	
Stainless Steel / Heat-Resistant Alloys	DNMG 150404MS	0.4																				●	●							●	●		●	●	●	●				●				●	D12 D13 F66 F72 F73	2
	DNMG 150408MS	0.8																				●	●							●	●		●	●	●	●				●				●			
Medium - Roughing	DNMG 150412MS	1.2																				●	●							●	●		●	●	●	●				●				●			
	DNMG 150604MS	0.4																				●	●							●	●		●	●	●	●				●				●	D12 D13 F66	
	DNMG 150608MS	0.8																				●	●							●	●		●	●	●	●				●				●			
	DNMG 150612MS	1.2																				●	●							●	●		●	●	●	●				●				●			
Stainless Steel / Heat-Resistant Alloys	DNMG 150404MU	0.4																				●	●							●	●		●	●	●	●				●				●	D12 D13 F66 F72 F73	
	DNMG 150408MU	0.8																				●	●							●	●		●	●	●	●				●				●			
Medium - Roughing	DNMG 150604MU	0.4																				●	●							●	●		●	●	●	●				●				●	D12 D13 F66	
	DNMG 150608MU	0.8																				●	●							●	●		●	●	●	●				●				●			
Heat-resistant Alloys	DNMG 150408SG	0.8																											●	●															D12 D13 F66 F72 F73	3
NEW	DNMG 150412SG	1.2																											●	●																	
Roughing																																															

Applicable Chipbreaker Range

ap indicates radius

1



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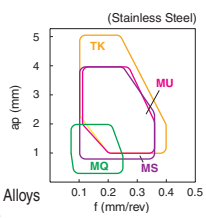
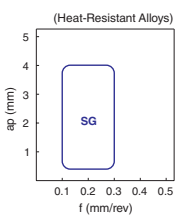


Heat-Resistant Alloys
Titanium Alloys
See Page B8

3



Inserts are sold in 10 piece boxes

● : Std. Item

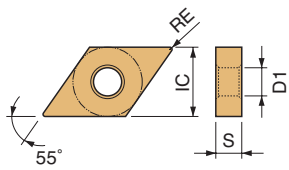
55° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	6.35	5.16



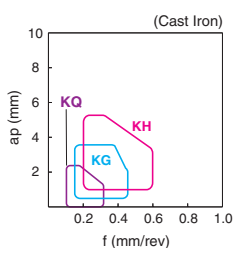
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron NEW Sharp Cutting Oriented	DNMG 150404KQ	0.4																						●	●	●																				D12 D13 F66 F72 F73	
	DNMG 150408KQ	0.8																						●	●	●																						
	DNMG 150604KQ	0.4																						●	●	●																				D12 D13 F66	
	DNMG 150608KQ	0.8																						●	●	●																						
Cast Iron NEW Roughing	DNMG 150404KG	0.4																						●	●	●																				D12 D13 F66 F72 F73	1
	DNMG 150408KG	0.8																						●	●	●																						
	DNMG 150412KG	1.2																						●	●	●																						
	DNMG 150604KG	0.4																						●	●	●																				D12 D13 F66	
	DNMG 150608KG	0.8																						●	●	●																						
	DNMG 150612KG	1.2																						●	●	●																						
Cast Iron NEW Roughing	DNMG 150408KH	0.8																						●	●	●																				D12 D13 F66 F72 F73	
	DNMG 150412KH	1.2																						●	●	●																						
	DNMG 150608KH	0.8																						●	●	●																				D12 D13 F66	
	DNMG 150612KH	1.2																						●	●	●																						
Cast Iron Roughing	DNMG 150404C	0.4																						●	●	●	●	●	□																D12 D13 F66 F72 F73	
	DNMG 150408C	0.8																						●	●	●	●	●	□																		
	DNMG 150412C	1.2																						●	●	●		●	□																		
	DNMG 150604C	0.4																						●	●	●		●																	D12 D13 F66	
	DNMG 150608C	0.8																						●	●	●		●	□																		
	DNMG 150612C	1.2																						●	●	●		●	□																		
Cast Iron Roughing	DNMG 150408ZS	0.8																						●	●	●	●	●	□																D12 D13 F66 F72 F73	2
	DNMG 150412ZS	1.2																						●	●	●	●	●	□																		
	DNMG 150608ZS	0.8																						●	●	●	●	●	□																D12 D13 F66	
	DNMG 150612ZS	1.2																						●	●	●	●	●	□																		
Cast Iron Roughing	DNMG 150408GC	0.8																●						●	●	●	●	●	□																D12 D13 F66 F72 F73	
	DNMG 150412GC	1.2																						●	●	●		●	□																		
	DNMG 150608GC	0.8																						●	●	●		●	□																D12 D13 F66	
	DNMG 150612GC	1.2																						●	●	●		●	□																		

Applicable Chipbreaker Range

ap indicates radius

1



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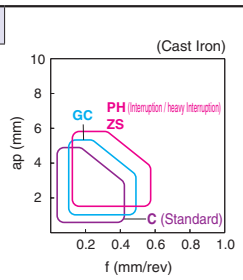


● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

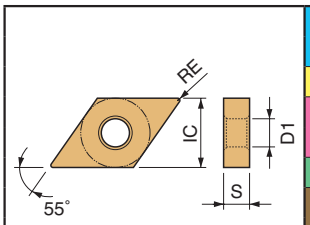
55° Rhombic / Negative with Hole

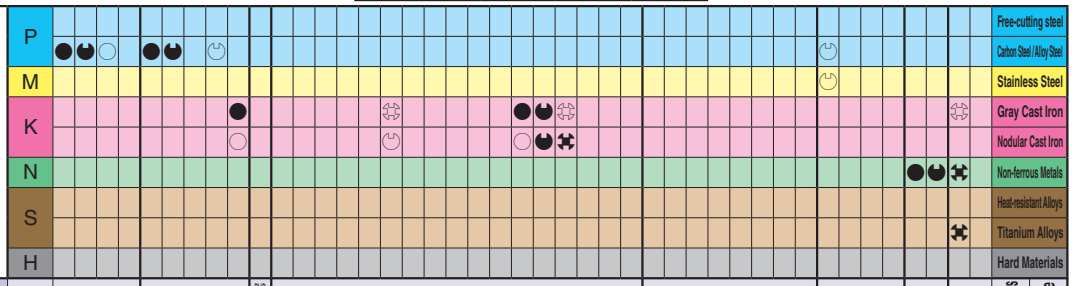
(mm)

Description	IC	S	D1
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
DN_1506_	12.70	4.76	5.16



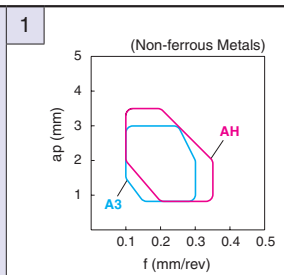


Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron — Without Chipbreaker	DNMA 150404	0.4																●						●	●	●	●	●	□															●		D12 D13 F66 F72 F73	-
	150408	0.8									●							●						●	●	●	●	●	□															●			
	DNMA 150604	0.4																						●	●	●		●																	D12 D13 F66	
	150608	0.8																						●	●	●	●	●																		
Non-ferrous Metals — Finishing - Medium / Sharp Edge	DNGG 150404R-A3	0.4																																								●	●	●			
	150404L-A3	0.4																																								●	●	●			
	150408R-A3	0.8																																								●	●	●		D12 D13 F66 F72 F73	
	150408L-A3	0.8																																								●	●	●			
Non-ferrous Metals — Medium - Roughing / Sharp Edge	DNGG 150404AH	0.4																																								●	●	●			1
	150408AH	0.8																																								●	●	●			
	DNGG 150604AH	0.4																																										●		D12 D13 F66	
	150608AH	0.8																																										●			
Non-ferrous Metals — Medium - Roughing	DNMG 150404AH	0.4																																								●	●	●		D12 D13 F66 F72 F73	
	150408AH	0.8																																								●	●	●			
Finishing — Surface Roughness Oriented	DNGG 110402R-S	0.2				●						○																																●		D13 F71	2
	110402L-S	0.2				●						○																																●			
	110404R-S	0.4				●						○																																●			
	110404L-S	0.4				●						□																																●			
	110408R-S	0.8				●						○																																●			
	110408L-S	0.8				●						○																																			
Medium	DNGG 110404R	0.4				●																																						●			
	110404L	0.4				●																																						●			
	110408R	0.8				●																																									
	DNGG 150404R	0.4	●	●	□	●	●	●		□	●	□																												●				●		D12 D13 F66 F72 F73	
	150404L	0.4	●	●	□	●	●	●		□	●																													●				●			
	150408R	0.8	●	●	□	●	●	●		□	●	□																												●				●			
	150408L	0.8	●	●	□	●	●	●		□	●	□																												●				●			

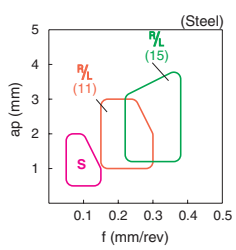
Applicable Chipbreaker Range

ap indicates radius

1



2



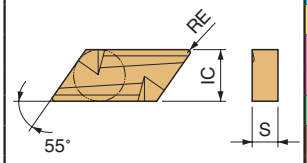
Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

55° Parallelogram / Negative without Hole

(mm)

Description	IC	S	D1
KNMX1604_	9.525	4.76	-



Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	KNMX 160405R-1	0.5																	●	●																										-	1
	160405L-1	0.5																	●	●																												
	160410R-1	1.0																	●	●																												
	160410L-1	1.0																	●	●																												

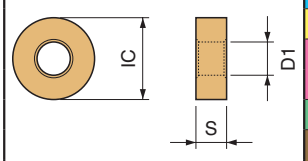
Round / Negative with Hole

(mm)

Description	IC	S	D1
RN_0903_	9.525	3.18	3.81
RN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
RN_1506_	15.875	6.35	6.35

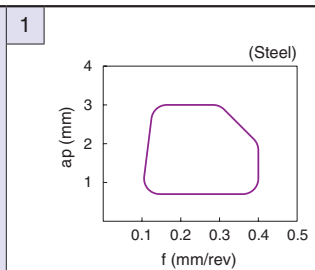


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	RNMG 090300	-		●		●		●					●	●	●	●	●			●																										D21	2
	RNMG 120400	-		●		●		●			●		●	●	●	●	●		●	●				●	●	●		●																			
	RNMG 150600	-													●	●	□		●	●				●	●	●																				-	

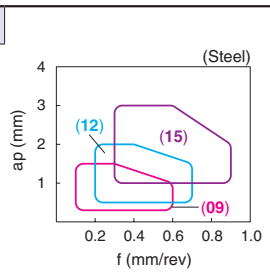
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" See Page B15

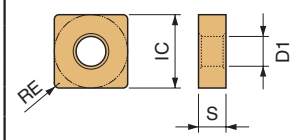
90° Square / Negative with Hole

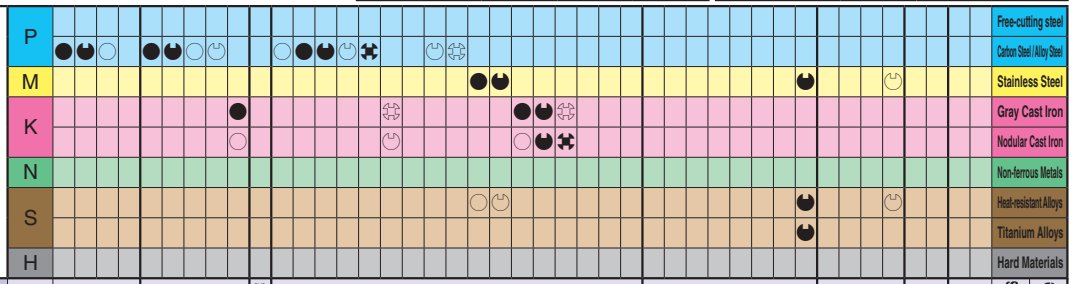
(mm)

Description	IC	S	D1
SN_0903_	9.525	3.18	3.81
SN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
SN_1506_	15.875	6.35	6.35
SN_1906_	19.05	6.35	7.94



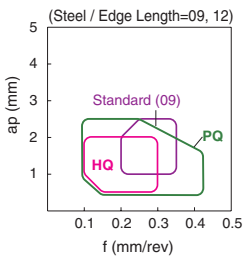


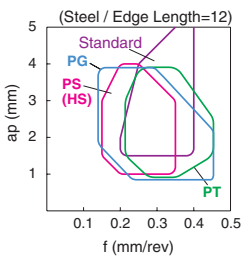
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium		SNMG 120404PQ	0.4	●	●	□		●	●		□			●	●	●	●	●		●																											
		SNMG 120408PQ	0.8	●	●	□		●	●		□			●	●	●	●	●		●	●																											
		SNMG 120412PQ	1.2											●	●	●	●	●			●																											
Finishing - Medium		SNMG 120404HQ	0.4	●	●	□	●	●	●	□	□	□		●	●	●	●	●		●	●																											
		SNMG 120408HQ	0.8	●	●	□	●	●	●	□	□	○		●	●	●	●	●	●	●	●	●	●																									
		SNMG 120412HQ	1.2	●	●		●	●	●		□	□		□	●	●	●	●		●	●																											
Medium - Roughing		SNMG 120408PG	0.8	●	●		●	●						●	●	●	●	●																													
		SNMG 120412PG	1.2		●			●						●	●	●	●	●																													
		SNMG 120416PG	1.6		●			●						●	●	●	●	●																												D14 D15 F75	
Medium - Roughing		SNMG 120408PS	0.8			□				□	□			●	●	●	●	●	●	●	●	●	●																								
		SNMG 120412PS	1.2											●	●	●	●	●		●	●		●																								
		SNMG 120416PS	1.6											□	●	●	●	●		●	●																										1
Medium - Roughing		SNMG 120408HS	0.8			○						○							□	○																										
		SNMG 120412HS	1.2			○						○							□	○																										
		SNMG 120416HS	1.6			○						○								○																										
Medium - Roughing / High Feed Rate		SNMG 120408PT	0.8											●	●	●	●	●	●		●	●		●																							
		SNMG 120412PT	1.2											●	●	●	●	●	●		●	●		●																							
Roughing		SNMG 090304	0.4	●	●	□	●	●	●							●	●	●			●																											
		SNMG 090308	0.8	●	●	□	●	●	●							●	●	●			●				●	●	●		●																		
		SNMG 120404	0.4	●	●	□	●	●	●		□	○							●						●	●	●	□	●	□																	
		SNMG 120408	0.8	●	●	□	●	●	●		□	□		●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	□																	
		SNMG 120412	1.2		●		●	●	●			□		●	●	●	●	●	●	●	●				●	●	●	●	●	□																	
		SNMG 120416	1.6		●		●	●	●							●	●	●	●	●	●				●	●	●		●	□																	
		SNMG 120420	2.0		●		●	●	●										●						●	●	●		●	□																D14 D15 F75	
		SNMG 190612	1.2																●		●																										
		SNMG 190616	1.6																		●																									-	2

Applicable Chipbreaker Range

ap indicates radius

1





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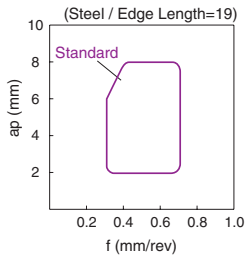


Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" ➡ See Page B15

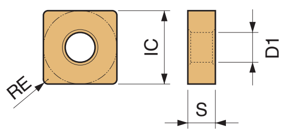
90° Square / Negative with Hole

(mm)

Description	IC	S	D1
SN_0903_	9.525	3.18	3.81
SN_1204_	12.70	4.76	5.16

(mm)

Description	IC	S	D1
SN_1506_	15.875	6.35	6.35
SN_1906_	19.05	6.35	7.94



Workpiece material suitability:

Material	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120
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 Alloys																											
S – Titanium Alloys																											
H – Hard Materials																											

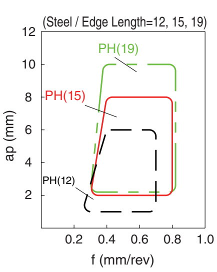
(No symbols are shown for PR1425, PR1225, PR005S, PR015S, PR1305, PR1310, PR1325, PR1535, PR930, PR1005, PR1025, PR1125, PDL010, PDL025, KW10, SW05.)

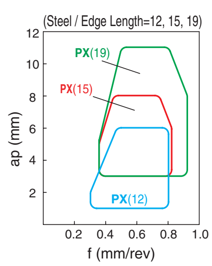
Insert	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
		Dimension (mm)	Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide			
Roughing 	SNMG 120408PH	0.8											●	●	●	●	●		●	●	●			●	●	●		●																		D14 D15 F75	1
	SNMG 120412PH	1.2											●	●	●	●	●		●	●	●			●	●	●		●																			
	SNMG 120416PH	1.6											□	●	●	●	●		●	●	●			●	●	●	●	●																			
	SNMG 150612PH	1.2											□	●	●	●	●			●				●	●	●		●																		-	
	SNMG 150616PH	1.6											□	●	●	●	●		●					●	●	●		●																			
	SNMG 190612PH	1.2													●	●	●		●	●	●																										
	SNMG 190616PH	1.6													●	●	●		●	●	●																										
Single Sided / Roughing / High Feed Rate 	SNMM 120408PX	0.8											□	●	●	●	●		●																											D14 D15 F75	1
	SNMM 120412PX	1.2											□	●	●	●	●		●	●																											
	SNMM 120416PX	1.6													●	□	□																														
	SNMM 150612PX	1.2													●	●	●		●	●																										-	
	SNMM 150616PX	1.6													●	□	□		●																												
	SNMM 190612PX	1.2											□	●	●	●	●			●	●																										
	SNMM 190616PX	1.6											□	●	●	●	●			●	●																										
	SNMM 190624PX	2.4													●	●	●			●																											
Low Carbon Steel  Finishing	SNMG 120408XP	0.8	●	●			●	●	□	□		□	□	●	●	●	□		●	●																										D14 D15 F75	2
Low Carbon Steel  Medium	SNMG 120408XQ	0.8	●	●		●	●	●		□		○	□	●	●	●	□		●	●																											
Low Carbon Steel  Roughing	SNMG 120408XS	0.8	●	●	□		●	●		□			●	●	●	●	●			●																											

Applicable Chipbreaker Range

ap indicates radius

1





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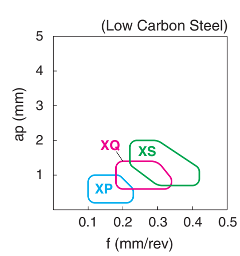


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

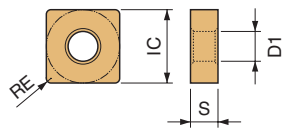
90° Square / Negative with Hole

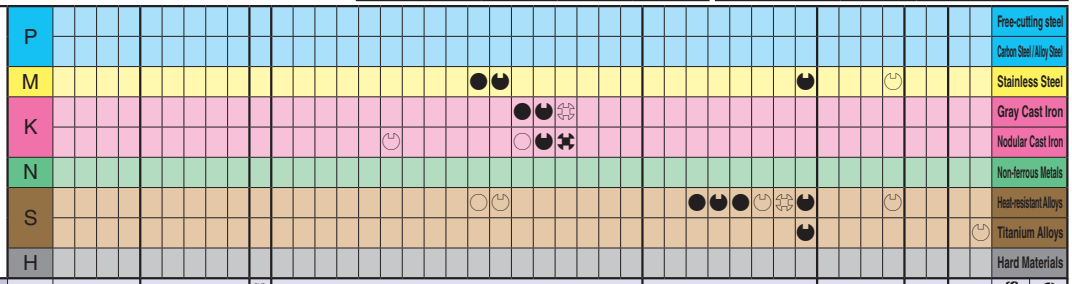
(mm)

Description	IC	S	D1
SN_1204_	12.70	4.76	5.16
SN_1506_	15.875	6.35	6.35

(mm)

Description	IC	S	D1
SN_1906_	19.05	6.35	7.94
SNMN1204_	12.70	4.76	-



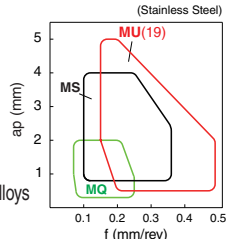


Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA4510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4310	CA4315	CA4320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys	Finishing - Medium	SNMG 120404MQ	0.4																				●	●							●	●	●	●	●	●					●				●	D14 D15 F75	
		SNMG 120408MQ	0.8																				●	●							●	●	●	●	●	●					●				●		
	Medium - Roughing	SNMG 120404MS	0.4																				●	●							●	●	●	●	●	●					●				●		1
		SNMG 120408MS	0.8																				●	●							●	●	●	●	●	●					●				●		
		SNMG 120412MS	1.2																				●	●							●	●	●	●	●	●					●				●		
		SNMG 120416MS	1.6																				●	●							●	●	●	●	●	●					●				●		
	Medium - Roughing	SNMG 190612MU	1.2																												●	●			●	●									-	
		SNMG 190616MU	1.6																												●	●			●	●									-	
Heat-resistant Alloys	NEW Roughing	SNMG 120408SG	0.8																												●	●					●								●	D14 D15 F75	
		SNMG 120412SG	1.2																												●	●					●								●		2
	Roughing	SNMG 190612SG	1.2																												●	●					●								●	-	
		SNMG 190616SG	1.6																												●	●					●								●		
Cast Iron	NEW Roughing	SNMG 120408KG	0.8																						●	●	●																			3
		SNMG 120412KG	1.2																						●	●	●																			
Cast Iron	NEW Roughing	SNMG 120408KH	0.8																						●	●	●																			
		SNMG 120412KH	1.2																						●	●	●																			
		SNMG 120416KH	1.6																						●	●	●																			
Cast Iron	Roughing	SNMG 120408C	0.8																						●	●	●			●															D14 D15 F75	
		SNMG 120412C	1.2																						●	●	●			●																
Cast Iron	Roughing	SNMG 120408ZS	0.8																●						●	●	●	●	●																		4
		SNMG 120412ZS	1.2																●						●	●	●	●	●																	
Cast Iron	Roughing	SNMG 120408GC	0.8																●						●	●	●	●	●																	
		SNMG 120412GC	1.2																●						●	●	●		●																	

Applicable Chipbreaker Range

ap indicates radius

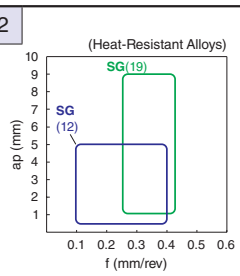
1 (Stainless Steel)



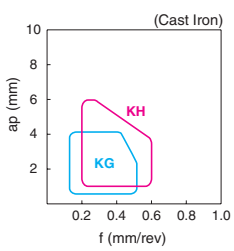
Heat-Resistant Alloys
Titanium Alloys

See Page B8

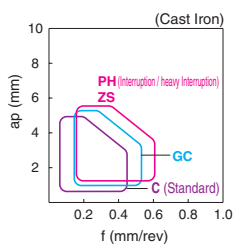
2 (Heat-Resistant Alloys)



3 (Cast Iron)



4 (Cast Iron)



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

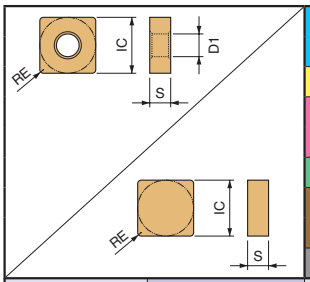
90° Square / Negative with Hole
90° Square / Negative without Hole

(mm)

Description	IC	S	D1
SN_1204_	12.70	4.76	5.16
SN_1506_	15.875	6.35	6.35

(mm)

Description	IC	S	D1
SN_1906_	19.05	6.35	7.94
SNMN1204_	12.70	4.76	-



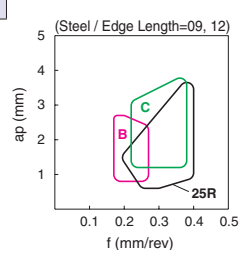
P M K N S H — Free-cutting steel; Carbon Steel / Alloy Steel; Stainless Steel; Gray Cast Iron; Nodular Cast Iron; Non-ferrous Metals; Heat-resistant Alloys; Titanium Alloys; Hard Materials

Insert Handed Insert shows Right-hand	Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron Without Chipbreaker	SNGA 120404	0.4									●																																	●			
	SNGA 120408	0.8									●																																	●			
	SNMA 120404	0.4																						●	●	●		●																			D14 D15 F75	-
	SNMA 120408	0.8																●						●	●	●	●	●																				
	SNMA 120412	1.2																●						●	●	●	●	●																				
	SNMA 120416	1.6																●						●	●	●	□	●																				
	SNMA 120420	2.0																						●	●	●		●																				
Cast Iron Without Chipbreaker	SNMN 120408	0.8																						●	●	●		●																			D27 D36 D37 F81	
	SNMN 120412	1.2																						●	●	●		●																				
Finishing - Medium / Medium - Roughing -B : Finishing - Medium -C : Medium-Roughing	SNGG 090304R-B	0.4	●	●	□	●	●	●			●																																	D14 D15	1
	SNGG 090304L-B	0.4	●	●	□	●	●	●			●																																			
	090308R-B	0.8	●	●	□	●	●	●																																					
	090308L-B	0.8	●	●	□	●	●	●																																					
	SNGG 120404R-C	0.4	●	●	□	●	●	●			●	□																																	
	SNGG 120404L-C	0.4	●	●	□	●	●	●			●	□																																	
	120408R-C	0.8	●	●	□	●	●	●			●	□																																	
	120408L-C	0.8	●	●	□	●	●	●			●	□																																	
	SNMG 120404R-C	0.4	●	●	□	●	●	●																																					
	SNMG 120404L-C	0.4	●	●	□	●	●	●																																					
	120408R-C	0.8	●	●	□	●	●	●																																					
	120408L-C	0.8	●	●	□	●	●	●																																					
Medium - Roughing Low cutting force	SNGG 120404R-25R	0.4	●	●	□	●	●	●																																					
	SNGG 120404L-25R	0.4	●	●	□	●	●	●																																					
	120408R-25R	0.8	●	●	□	●	●	●																																					
	120408L-25R	0.8	●	●	□	●	●	●																																					

Applicable Chipbreaker Range

ap indicates radius

1



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

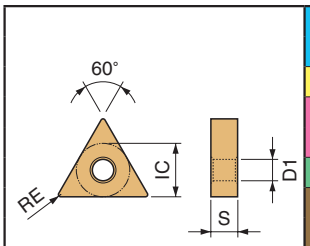
60° Triangle / Negative with Hole

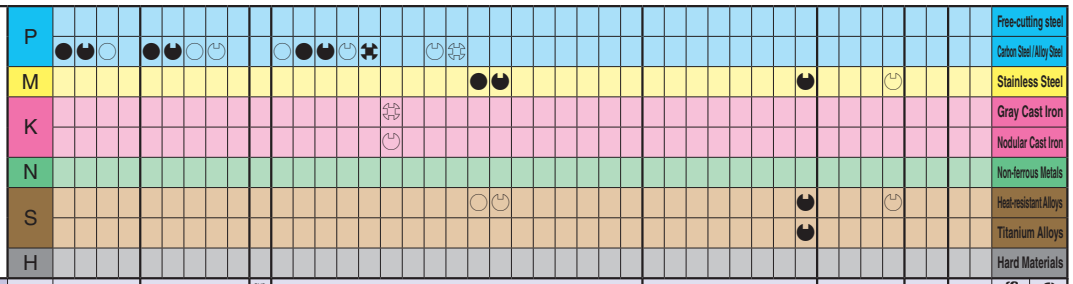
(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



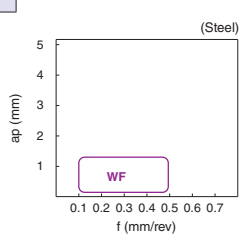


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	TNMX 160404WF	0.4	●	●			●	●					●	●	●	●	●																												D16 F76	1
NEW Finishing	160408WF	0.8	●	●			●	●					●	●	●	●	●																													
	160412WF	1.2	●	●			●	●					●	●	●	●	●																													
Finishing	TNMG 160402PP	0.2	●	●	□		●	●	□	□			●	●	●	●	●			●																								D16 D17 F66 F76 F77	
	160404PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●			●																									
	160408PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●																											
	160412PP	1.2	●	●	□		●	●	□	□			●	●	●	●	●																											
Finishing	TNMG 110404GP	0.4		●		●		●				□																															D16 F77	
	110408GP	0.8		●		●		●				□																															
	TNMG 160402GP	0.2	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																								D16 D17 F66 F76 F77	
	160404GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●																									
	160408GP	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●																									
Finishing - Medium	TNMG 160404PQ	0.4	●	●	□		●	●	□	□			●	●	●	●	●			●																								D16 F76 F77	2
	160408PQ	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																									
	160412PQ	1.2	●	●			●	●		□			□	●	●	●	●			●																									
Finishing - Medium	TNMG 110404HQ	0.4		●		●		●				○	□	●	●	●	□			●																								D16 F77	
	110408HQ	0.8		●		●		●				○	●	●	●	●	●		●	●																									
	TNMG 160404HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																						D16 D17 F66 F76 F77	
	160408HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																							
	160412HQ	1.2		●		●		●		□		□	●	●	●	●	●		●	●	●	●																							
Finishing - Medium / Up Facing	TNMG 160404CQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																									
	160408CQ	0.8	●	●		●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																									
	160412CQ	1.2		●		●		●		□		○	●	●	●	●	●	●	●	●	●																									
	TNMG 220408CQ	0.8											●	●	●	●	●			●	●																								D16 F76	
	220412CQ	1.2											□	●	●	●	□			●	●																									
Medium - Roughing	TNMG 110404GS	0.4		●		●		●							●	●	□			●																								D16 F77	
	110408GS	0.8		●		●		●							●	●	□			●																									
	TNMG 160404GS	0.4		●				●		□		○	●	●	●	●	●		●	●																									3
	160408GS	0.8		●				●		□		○	●	●	●	●	●		●	●																								D16 D17 F66 F76 F77	
	160412GS	1.2										□																																	
Medium - Roughing	TNMG 160404PG	0.4	●	●			●	●					●	●	●	●	●																													
	160408PG	0.8	●	●			●	●					●	●	●	●	●																													
	160412PG	1.2		●				●					●	●	●	●	●																													

Applicable Chipbreaker Range

ap indicates radius

1



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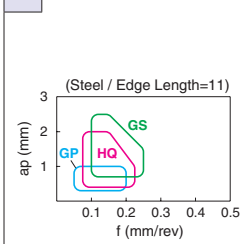

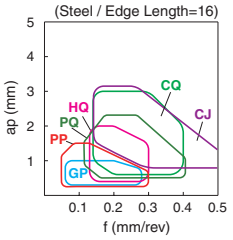

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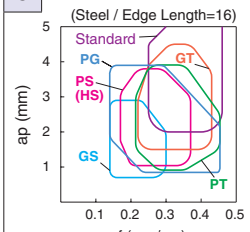
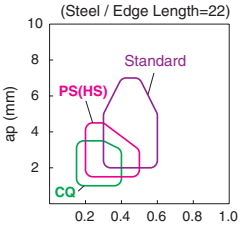




Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

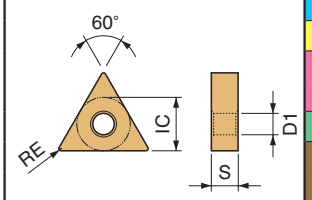
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16

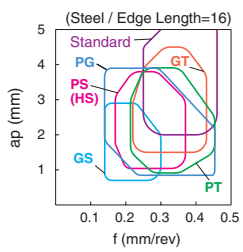


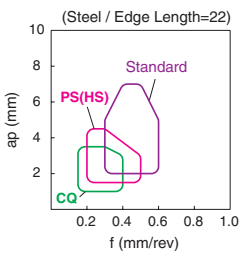
				Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																			MEGACOAT (PVD Coated Carbide)							PVD Coated Carbide				DLC		Carbide			
Insert		Description	Dimension (mm) RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing		TNMG 160404PS	0.4	●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																		●					D16 D17 F66 F76 F77	
		TNMG 160408PS	0.8	●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																		●						
		TNMG 160412PS	1.2										□	●	●	●	●	●		●	●	●	●	●																								
		TNMG 220404PS	0.4											●	●	●	●	●		●	●	●																							D16 F76	
		TNMG 220408PS	0.8											●	●	●	●	●	●	●	●	●	●	●																								
		TNMG 220412PS	1.2											●	●	●	●	●		●	●	●		●																								
		TNMG 220416PS	1.6											□	●	●	●	□		●	●																											
Medium - Roughing		TNMG 160404HS	0.4			○							○						□	○																							D16 D17 F66 F76 F77	
		TNMG 160408HS	0.8			○							○						○	○																											
		TNMG 160412HS	1.2			○							○							○																											
		TNMG 220404HS	0.4				□																																				D16 F76	
		TNMG 220408HS	0.8				□						○																																	
		TNMG 220412HS	1.2																	□																											
Medium - Roughing / High Feed Rate		TNMG 160408PT	0.8											●	●	●	●	●	●	●	●	●		●																							1	
		TNMG 160412PT	1.2											□	●	●	●	●			●	●																									
Medium - Roughing / High Feed Rate		TNMG 160408GT	0.8								□		○	●	●	●	●	●		●	●																							D16 D17 F66 F76 F77	
		TNMG 160412GT	1.2										□	□	●	●	●	□			●																									
Roughing		TNMG 160404	0.4	●	●		●	●	●	□	□	●	○	●	●	●	●	●	●	●	●		●	●	●	●	●	●	□													●				
		TNMG 160408	0.8	●	●		●	●	●	□	□	●	○	●	●	●	●	●	●	●	●		●	●	●	●	●	●	□													●				
		TNMG 160412	1.2		●		●		●		□		□	●	●	●	●	●	●	●	●			●	●	●	●	●	□																	
		TNMG 160416	1.6																●						●	●	●	●	□																	
		TNMG 160420	2.0																●						●	●	●	●	□																	
		TNMG 220404	0.4																●						●	●	●	□	●															D16 F76	
		TNMG 220408	0.8		●		●		●					●	●	●	●	●		●	●				●	●	●	●	●	□																
		TNMG 220412	1.2				●							□	●	●	●	●		●	●				●	●	●	●	●	□																
Roughing		TNMG 160408PH	0.8											●	●	●	●	●			●				●	●	●	●	●																	D16 D17 F66 F76 F77	
		TNMG 160412PH	1.2											●	●	●	●	●			●				●	●	●		●																	
		TNMG 220408PH	0.8											●	●	●	●	●			●																									2	
		TNMG 220412PH	1.2											●	●	●	●	●			●	●																							D16 F76	
		TNMG 220416PH	1.6											□	●	●	●	□			●																									

Applicable Chipbreaker Range

ap indicates radius

1





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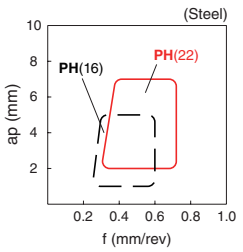

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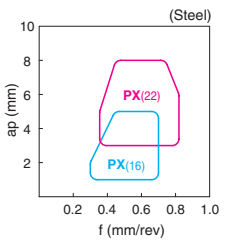


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

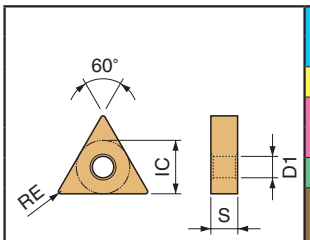
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



P ● ● ○ ● ● ○ ○ ○ ● ● ○ ○ ✱ ○ ● ○ ○ Free-cutting steel / Carbon Steel / Alloy Steel

M ○ ○ ● Stainless Steel

K ✱ ○ Gray Cast Iron / Nodular Cast Iron

N Non-ferrous Metals

S ● ● Heat-resistant Alloys / Titanium Alloys

H Hard Materials

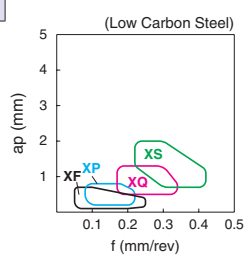
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Single Sided / Roughing / High Feed Rate		TNMM 160408PX 160412PX	0.8 1.2											● ● ● ● ● □						● ● ●																										D16 D17 F66 F76 F77	B37
		TNMM 220408PX 220412PX 220416PX	0.8 1.2 1.6											● ● □ ● ● □ ● ● ●						● ● ●																										D16 F76	3
Low Carbon Steel	 Finishing / Small ap	TNMG 160404XF 160408XF	0.4 0.8	● ● □ ● ● □				● ● □ ● ● □																																							
Low Carbon Steel	 Finishing	TNMG 160404XP 160408XP	0.4 0.8	● ● ● ●			●	● ● □ ● ● □					○ ○	● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●																																	D16 D17 F66 F76 F77	1
Low Carbon Steel	 Medium	TNMG 160404XQ 160408XQ	0.4 0.8	● ● ● ●			● ● ● ●	● ● □ ● ● □					○ ○	● ● ● ● ● ● ● ● ● ● ● ●																																			
Low Carbon Steel	 Roughing	TNMG 160408XS	0.8	●		●		●		□			○	● ● ● ● ● ●							● ●																										
Finishing - Medium	 Sharp Edge / Polished	TNGG 160401MFP-SK 160402MFP-SK 160404MFP-SK	<0.1 <0.2 <0.4																												● ● ● ● ● ●						● ● ● ● ● ●													2
Finishing - Medium	NEW 	TNGG 160402M-SK 160404M-SK	<0.2 <0.4						● ●																																					D16 D17 E43 F66 F76 F77	
Large ap	NEW 	TNMG 160402R-LD 160404R-LD	0.2 0.4																												● ●						● ●												3

· 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).

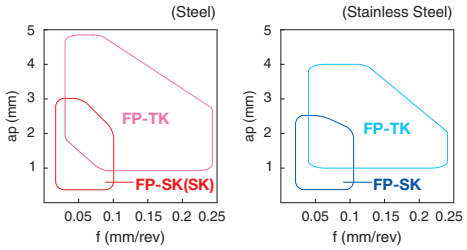
Applicable Chipbreaker Range

ap indicates radius

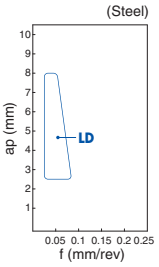
1 (Low Carbon Steel)



2 (Steel) (Stainless Steel)



3 (Steel)



Inserts are sold in 10 piece boxes

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How to read pages of "Turning Inserts" See Page B15

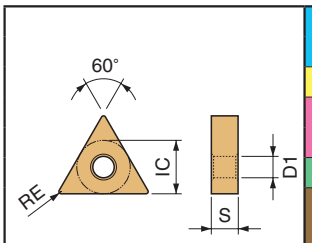
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

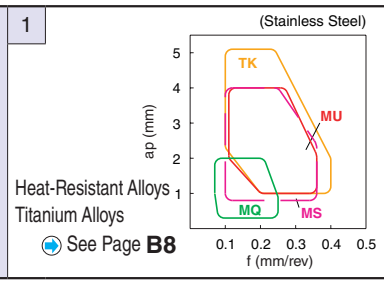
Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16

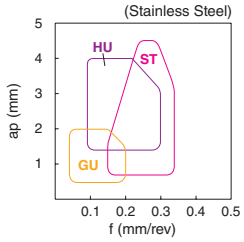


Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	TNGG 160404FP-TK	0.4																											●	●						●									D16 D17 E43 F66 F76 F77	
Sharp Edge / Polished	TNGG 160408FP-TK	0.8																											●	●						●										
Stainless Steel / Heat-Resistant Alloys	TNGG 160404TK	0.4																															●	●									●			
Medium - Roughing / Sharp Edge	TNGG 160408TK	0.8																															●	●									●			
	TNMG 160404TK	0.4																				●	●																			●			
Medium - Roughing	TNMG 160408TK	0.8																				●	●																			●			
	TNMG 160404MQ	0.4																				●	●										●	●	●	●	●	●				●			1
Finishing - Medium	TNMG 160408MQ	0.8																				●	●										●	●	●	●	●	●				●			
	TNMG 160404MS	0.4																				●	●										●	●	●	●	●	●				●			D16 D17 F66 F76 F77
Medium - Roughing	TNMG 160408MS	0.8																				●	●										●	●	●	●	●	●				●			
	TNMG 160412MS	1.2																				●	●										●	●	●	●	●	●				●			
	TNMG 160404MU	0.4																				●	●										●	●	●	●	●	●				●			
Medium - Roughing	TNMG 160408MU	0.8																				●	●										●	●	●	●	●	●				●			
Stainless Steel	TNMG 160404R-ST	0.4	●	●	□	●	●	●					●	●	●	●	●			●	●	●	●																			●			
	160404L-ST	0.4	●	●	□	●	●	●					●	●	●	●	●			●	●	●	●																			●			
Medium - Roughing	160408R-ST	0.8		●		●		●					●	●	●	●	●			●	●	●	●																			●			
	160408L-ST	0.8		●		●		●					●	●	●	●	●			●	●	●	●																			●			
Heat-resistant Alloys	NEW TNMG 160408SG	0.8																															●	●									●			
	160412SG	1.2																															●	●									●			2
Roughing	TNMG 220408SG	0.8																															●	●									●		D16	
	220412SG	1.2																															●	●									●		F76	

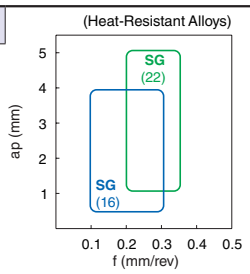
Applicable Chipbreaker Range
ap indicates radius

1





2



Heat-Resistant Alloys
Titanium Alloys
See Page B8

● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

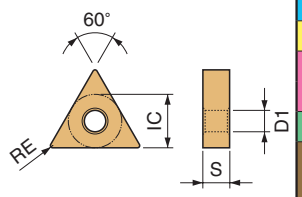
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



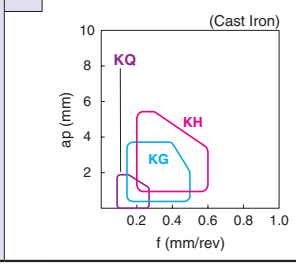
P: Free-cutting steel / Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron / Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys / Titanium Alloys
H: Hard Materials

Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron NEW Sharp Cutting Oriented	TNMG 160404KQ	0.4																						●	●	●																					
	160408KQ	0.8																						●	●	●																					
Cast Iron NEW Roughing	TNMG 160404KG	0.4																						●	●	●																					
	160408KG	0.8																						●	●	●																					
	160412KG	1.2																						●	●	●																					1
Cast Iron NEW Roughing	TNMG 160408KH	0.8																						●	●	●																					
	160412KH	1.2																						●	●	●																					
	160416KH	1.6																						●	●	●																				D16 D17 F66	
Cast Iron Roughing	TNMG 160404C	0.4																						●	●	●	●	●	□																F76 F77	
	160408C	0.8																●						●	●	●	●	●	□																	
	160412C	1.2																						●	●	●		●	□																	
Cast Iron Roughing	TNMG 160408ZS	0.8																●						●	●	●	●	●	□																	
	160412ZS	1.2																						●	●	●		●	□																	
Cast Iron Roughing	TNMG 160408GC	0.8																						●	●	●	●	●	□																	
	160412GC	1.2																●						●	●	●		●	□																	2
Cast Iron Without Chipbreaker	TNGA 110304	0.4																																									●		D16	
	TNGA 160404	0.4									●																																●			
	160408	0.8									●																																●		D16	
	TNMA 160404	0.4		●		●		●			●							●						●	●	●	●	●	□																D17 F66	
	160408	0.8		●		●		●			●							●						●	●	●	●	●	□																F76 F77	
	160412	1.2																						●	●	●	●	●	□																	
	160416	1.6																						●	●	●		●	□																	
	160420	2.0																						●	●	●		●																	

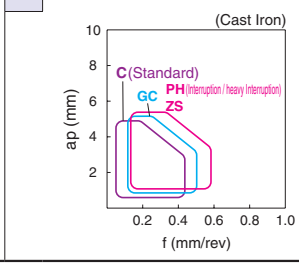
Applicable Chipbreaker Range

ap indicates radius

1



2



Inserts are sold in 10 piece boxes

 ● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

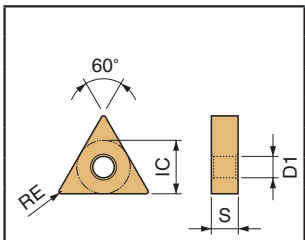
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



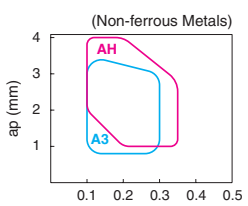
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals / Heat-resistant Alloys
S Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals	Finishing - Medium / Sharp Edge	TNGG 160404R-A3	0.4																																								●	●	●			
		160404L-A3	0.4																																								●	●	●			
		160408R-A3	0.8																																								●	●	●			
		160408L-A3	0.8																																								●	●	●			
Non-ferrous Metals	Medium - Roughing / Sharp Edge	TNGG 160404AH	0.4																																								●	●	●	D16 D17 F66 F76 F77	1	
		160408AH	0.8																																								●	●	●			
Non-ferrous Metals	Medium - Roughing	TNMG 160404AH	0.4																																								●	●	●			
		160408AH	0.8																																								●	●	●			

Applicable Chipbreaker Range

ap indicates radius

1



● : Std. Item

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

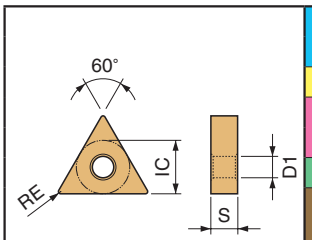
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



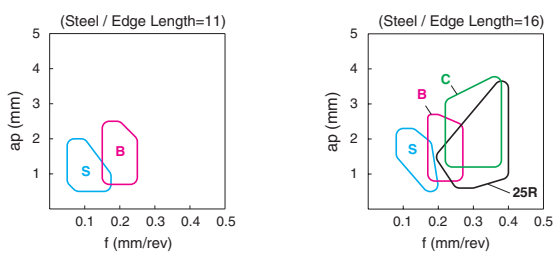
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine — Sharp Edge / Precision	TNEG 160402R-SSF	0.2	●	●	□	●	●	●		□																										●										D16 D17 F66 F76 F77	
	160402L-SSF	0.2	●	●	□	●	●	●		□																										●											
	160404R-SSF	0.4	●	●	□	●	●	●		□																										●											
	160404L-SSF	0.4	●	●	□	●	●	●		□																										●											
Finishing	TNGG 110402R-S	0.2				●																																					●				
	110402L-S	0.2				●																																					●				
	110404R-S	0.4				●																																									D16 F77	
	110404L-S	0.4				●																																									
	110408R-S	0.8				●																																									
	110408L-S	0.8				●																																									
	TNGG 160401R-S	0.1		●				●		□																																					
	160401L-S	0.1		●				●		□																																					
	160402R-S	0.2	●	●	□	●	●	●	□	□	●	○																			●					●	●	●				●					D16 D17 F66 F76 F77	1
	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	0.2	●	●	□	●	●	●																																			●				
	110302L-B	0.2	●	●		●	●	●																																			●				
	110304R-B	0.4	●	●	□	●	●	●																																			●				D16	
	110304L-B	0.4	●	●	□	●	●	●																																			●				
	TNGG 160304R-B	0.4				●																																									-	
	160304L-B	0.4				●																																									
	TNGG 160402R-B	0.2	●	●	□	●	●	●	□	□																										●							●				
	160402L-B	0.2	●	●	□	●	●	●	□	□																										●							●			D16 D17 F66 F76 F77	
	160404R-B	0.4	●	●	□	●	●	●	□	□	●																									●											
	160404L-B	0.4	●	●	□	●	●	●	□	□	●																									●											
	160408R-B	0.8	●	●	□	●	●	●																																							
	160408L-B	0.8	●	●		●	●	●																																							

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

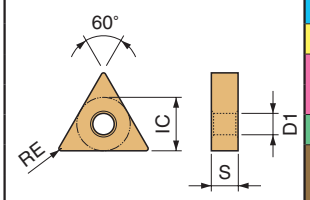
60° Triangle / Negative with Hole

(mm)

Description	IC	S	D1
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	IC	S	D1
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16

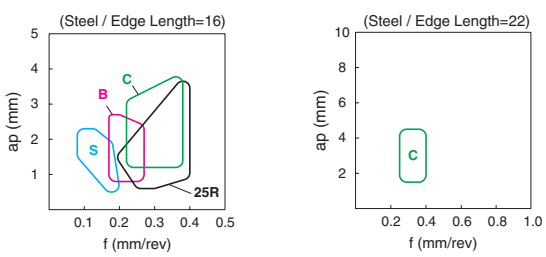


				Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																				MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Insert		Description		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Handed Insert shows Right-hand																																															
Medium - Roughing		TNGG 160402R-C		0.2		●				●		□																																			
		160402L-C		0.2		●				●		□																																				
		160404R-C		0.4	●	●	□	●	●	●	□	□	●	○																											●				●		D16	
		160404L-C		0.4	●	●	□	●	●	●	□	□	●	□																											●				●		D17	
		160408R-C		0.8	●	●	□	●	●	●	□	□	●	□																											●				●		F66	
		160408L-C		0.8	●	●	□	●	●	●	□	□	●	□																											●				●		F76	
		160412R-C		1.2	●	●	□	●	●	●		□	●																																		F77	
		160412L-C		1.2	●	●		●	●	●		□	●																																			
		160416R-C		1.6									●																																				
		TNGG 220404R-C		0.4		●		●		●																																						D16	
		220404L-C		0.4		●		●		●																																							
		220408R-C		0.8		●		●		●			□																																		F76	
		220408L-C		0.8		●		●		●																																							
		TNGG 110402R		0.2				●																																									1
		110402L		0.2				●																																								
		110404R		0.4				●																																							D16	
		110404L		0.4				●																																							F77	
		110408R		0.8				●																																								
		TNMG 160404R-C		0.4	●	●		●	●	●	□	□																																			
		160404L-C		0.4	●	●		●	●	●	□	□																																			
		160408R-C		0.8	●	●		●	●	●	□	□																																			
		160408L-C		0.8	●	●		●	●	●		□																																			D16	
		160412R-C		1.2				●																																								D17	
																																														F66	
																																														F76	
Medium - Roughing	Low cutting force	TNGG 160404R-25R		0.4	●	●	□	●	●	●		□																													●		●		●		F77	
		160404L-25R		0.4	●	●	□	●	●	●		□																													●		●		●			
		160408R-25R		0.8	●	●	□	●	●	●		□																													●		●		●			
		160408L-25R		0.8	●	●		●	●	●		□																													●		●		●			

Applicable Chipbreaker Range

ap indicates radius

1



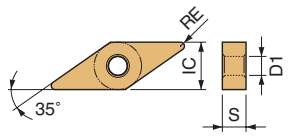
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

35° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
VN_1604_	9.525	4.76	3.81



P: Free-cutting steel, Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron, Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys, Titanium Alloys
H: Hard Materials

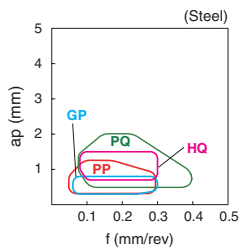
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		VNMG 160402PP	0.2	●	●	□		●	●	□	□			●	●	●	●	●		●	●																												
		160404PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																												
		160408PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																												
		160412PP	1.2	●	●			●	●		□			□	□	●	●	□																												
Finishing		VNMG 160402GP	0.2	●	●	□	●	●	●	□	□		○	□	●	●	●	●		●	●																												
		160404GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●																												
		160408GP	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●																												
Finishing - Medium		VNMG 160404R-VC	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	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																											1	
		160408VF	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																												
		160412VF	1.2		●				●		□			□	●	●	●	●		●	●																												
Finishing - Medium		VNMG 160404PQ	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●																										D18 D19 D20			
		160408PQ	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●																												
		160412PQ	1.2	●	●	□		●	●		□			●	●	●	●	●		●																												
Finishing - Medium		VNMG 160404HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																												
		160408HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																												
		160412HQ	1.2		●		●		●		□		○	●	●	●	●	●	●	●	●	●																												
Medium		VNMG 160404TN-V	0.4				●																																										
		160408TN-V	0.8				●																																										
		160412TN-V	1.2				●																																										
Roughing		VNMG 160404	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□																		
		160408	0.8	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□																		
Finishing - Medium	Sharp Edge / Polished	VNGG 160402MFP-SK	<0.2																												●	●					●										2	
		160404MFP-SK	<0.4																												●	●					●												
Finishing - Medium		VNGG 160402M-SK	<0.2	●	●	□		●	●	□																																						
		160404M-SK	<0.4	●	●	□		●	●	□																																						

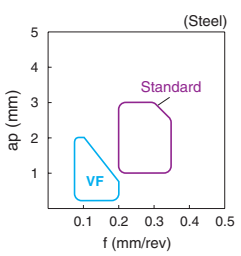
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable Chipbreaker Range

ap indicates radius

1





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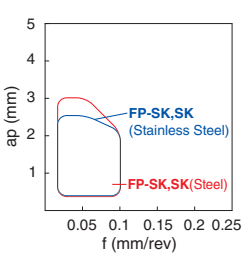


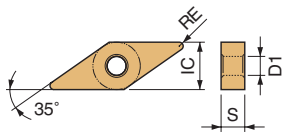
Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

35° Rhombic / Negative with Hole

(mm)

Description	IC	S	D1
VN_1604_	9.525	4.76	3.81

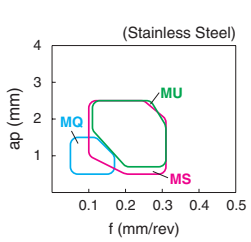


		Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																		MEGACOAT (PVD Coated Carbide)							PVD Coated Carbide				DLC		Carbide			
Insert Handed Insert shows Right-hand	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys Finishing - Medium	VNMG 160404MQ	0.4																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
	160408MQ	0.8																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
Stainless Steel / Heat-Resistant Alloys Medium - Roughing	VNMG 160404MS	0.4																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
	160408MS	0.8																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		1
	160412MS	1.2																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
Stainless Steel / Heat-Resistant Alloys Medium - Roughing	VNMG 160404MU	0.4																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
	160408MU	0.8																				●●	●●							●●	●●	●●	●●	●●	●●	●●				●			●		
Heat-resistant Alloys NEW Roughing	VNMG 160404SG	0.4																												●●	●●				●								●		
	160408SG	0.8																												●●	●●				●								●		2
Cast Iron NEW Roughing	VNMG 160408KG	0.8																						●●●																						
	160412KG	1.2																						●●●																					D18 D19 D20	3
Cast Iron NEW Roughing	VNMG 160408KH	0.8																						●●●																						
	160412KH	1.2																						●●●																						
Cast Iron Without Chipbreaker	VNGA 160404	0.4									●																															●			
	160408	0.8									●																															●			-
Finishing NEW Surface Roughness Oriented / Sharp Edge	VNGG 160402R-S	0.2		●				●																												●									
	160402L-S	0.2		●				●																												●									
	160404R-S	0.4		●				●																												●									
	160404L-S	0.4		●				●																												●									
Medium	VNGG 160402R	0.2	●	●	□	●	●	●	□	□		○																									●								4
	160402L	0.2	●	●	□	●	●	●	□	□		□																									●								
	160404R	0.4	●	●	□	●	●	●	□	□		□																									●						●		
	160404L	0.4	●	●	□	●	●	●	□	□																											●						●		
	160408R	0.8	●	●	□	●	●	●		□																											●						●		
	160408L	0.8	●	●		●	●	●		□																											●						●		

Applicable Chipbreaker Range

ap indicates radius

1



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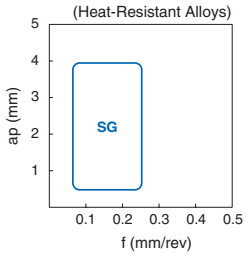

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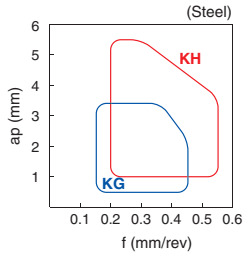

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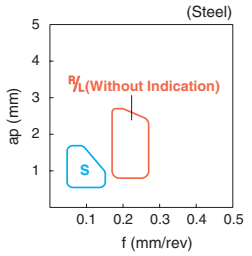


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

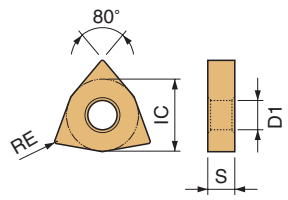
80° Trigon / Negative with Hole

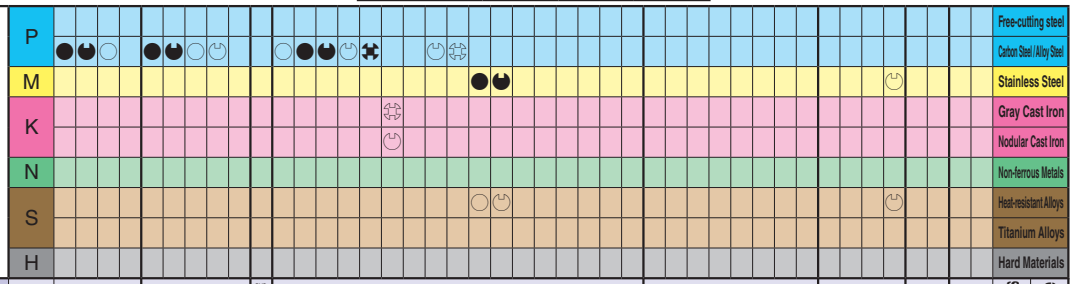
(mm)

Description	IC	S	D1
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	IC	S	D1
WN_0804_	12.70	4.76	5.16



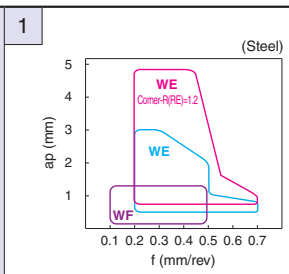


Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	NEW Finishing	WNMG 080404WF	0.4	●	●			●	●					●	●	●	●	●																													1
		080408WF	0.8	●	●			●	●					●	●	●	●	●																												
With Wiper Edge	Finishing	WNMG 080404WP	0.4	●	●	□		●	●	□	□			●	●	●	●	●	●	●	●																									2
		080408WP	0.8	●	●			●	●	□	□			●	●	●	●	●	●	●	●																									
With Wiper Edge	NEW Finishing - Medium	WNMG 080404WE	0.4	●	●			●	●					●	●	●	●	●																													1
		080408WE	0.8	●	●			●	●					●	●	●	●	●																												
		080412WE	1.2	●	●			●	●					●	●	●	●	●																												D22 F79 F80
With Wiper Edge	Finishing - Medium	WNMG 080404WQ	0.4	●	●	□		●	●	□	□		○	●	●	●	●	●			●	●																								2
		080408WQ	0.8	●	●			●	●	□	□		□	●	●	●	●	●	●	●	●	●																								
		080412WQ	1.2		●				●		□			●	●	●	●	●	●	●	●	●																								
Finishing		WNMG 080402PP	0.2	●	●			●	●	□	□			●	●	●	●	●																												
		080404PP	0.4	●	●			●	●	□	□			●	●	●	●	●																												
		080408PP	0.8	●	●	□		●	●		□			●	●	●	●	●																												
		080412PP	1.2	●	●			●	●		□			●	●	●	●	●																												
Finishing		WNMG 060404GP	0.4		●		●		●				○				●	●			●																								D22 F78
		060408GP	0.8		●		●		●				○				●	●			●																								
		WNMG 080404GP	0.4	●	●		●	●	●	□	□		□																															D22 F79 F80
		080408GP	0.8	●	●	□	●	●	●	□	□		○																															
Finishing - Medium		WNMG 080404PQ	0.4	●	●	□		●	●		□			●	●	●	●	●		●	●																								3
		080408PQ	0.8	●	●	□		●	●		□			●	●	●	●	●		●	●																								
		080412PQ	1.2											●	●	●	●	●		●	●																								
Finishing - Medium		WNMG 06T304HQ	0.4		●		●		●							●	●	●			●																								-
		06T308HQ	0.8				●									●	●	●			●																								
		WNMG 060404HQ	0.4		●		●		●				○	●	●	●	●	●		●	●																								D22 F78
		060408HQ	0.8		●		●		●				○	●	●	●	●	●		●	●																								
		WNMG 080404HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																						D22 F79 F80
		080408HQ	0.8	●	●		●	●	●	□	□		○	●	●	●	●	●	●	●	●	●	●																						
		080412HQ	1.2	●	●		●	●	●	□	□		□	●	●	●	●	●		●	●																								

Applicable Chipbreaker Range

ap indicates radius

1



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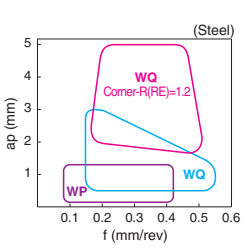

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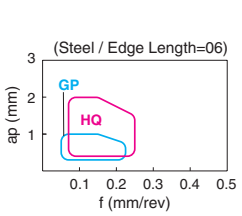
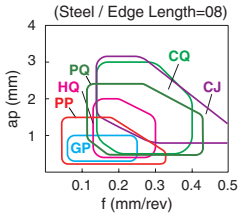




Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

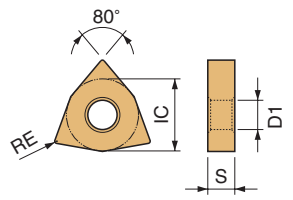
80° Trigon / Negative with Hole

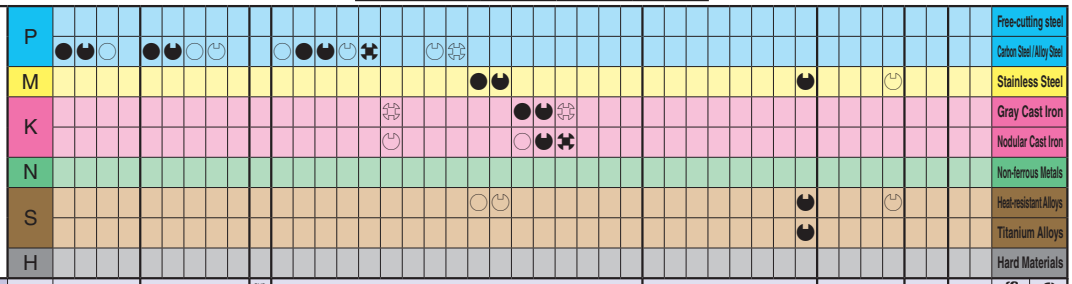
(mm)

Description	IC	S	D1
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	IC	S	D1
WN_0804_	12.70	4.76	5.16



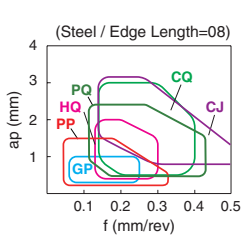


Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium / Up Facing	WNMG 080404CQ	0.4	●	●			●	●	□	□		□	●	●	●	●	●		●	●																										D22 F79 F80	1
	WNMG 080408CQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	●	●	●	●																											
	WNMG 080412CQ	1.2		●		●		●		□			●	●	●	●	●		●	●	●																											
Finishing - Medium / Up Facing	WNMG 080408CJ	0.8											●	●	●	●	●		●	●																											
	WNMG 080412CJ	1.2											●	●	●	●	●		●	●	●																											
Medium - Roughing	WNMG 060404GS	0.4		●		●		●				□	●	●	●	●	●		●	●																										D22 F78	
	WNMG 060408GS	0.8		●		●		●				□	●	●	●	●	●		●	●																											
	WNMG 080404GS	0.4		●				●		□		□	□	●	●	●	□		●	●																											
	WNMG 080408GS	0.8		●				●		□		□	●	●	●	●	●		●	●																											
	WNMG 080412GS	1.2											□	●	●	●	●		●	●																											
Medium - Roughing	WNMG 080404PG	0.4	●	●			●	●					●	●	●	●	●																					●								
	WNMG 080408PG	0.8	●	●			●	●					●	●	●	●	●																					●								
	WNMG 080412PG	1.2											●	●	●	●	●																					●								
	WNMG 080416PG	1.6											●	●	●	●	●																													
Medium - Roughing	WNMG 080404PS	0.4		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																			●				2
	WNMG 080408PS	0.8		●	□			●	□	□			●	●	●	●	●	●	●	●	●	●	●																			●				
	WNMG 080412PS	1.2											●	●	●	●	●	●	●	●	●																									
	WNMG 080416PS	1.6											●	●	●	●	●		●	●																											
Medium - Roughing	WNMG 080404HS	0.4				○						○						□	○																										D22 F79 F80	
	WNMG 080408HS	0.8				○						○						○	○																											
	WNMG 080412HS	1.2				□						○							○																											
Medium - Roughing / High Feed Rate	WNMG 080408PT	0.8											●	●	●	●	●	●	●	●	●	●	●																							
	WNMG 080412PT	1.2											●	●	●	●	●	●	●	●	●																							
Medium - Roughing / High Feed Rate	WNMG 080408GT	0.8										○	●	●	●	●	●		●	●																									
	WNMG 080412GT	1.2											●	●	●	●	●		●	●																									
Roughing	WNMG 080404	0.4	●	●	□	●	●	●	□		●		●	●	●	●	□	●	●	●		●	●	●	●	●	●	●	□									●								
	WNMG 080408	0.8	●	●	□	●	●	●	□		●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□									●								
	WNMG 080412	1.2											●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	□									●								

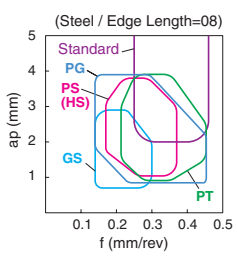
Applicable Chipbreaker Range

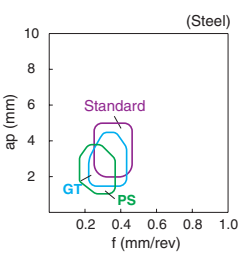
ap indicates radius

1

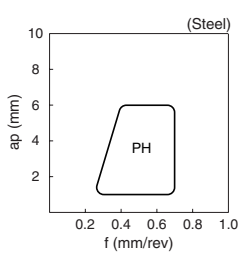


2





3



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

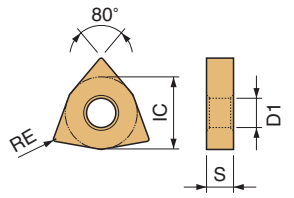
80° Trigon / Negative with Hole

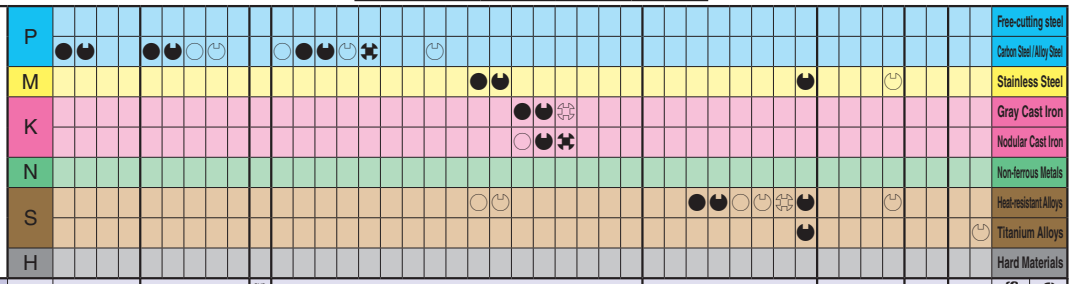
(mm)

Description	IC	S	D1
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	IC	S	D1
WN_0804_	12.70	4.76	5.16



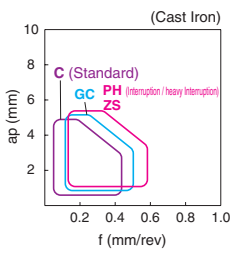


Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Roughing		WNMG 080408PH	0.8											●	●	●	●	●							●	●	●	●	●																			B47
		080412PH	1.2											●	●	●	●	●							●	●	●	●	●																			3
																																															1
Low Carbon Steel	Finishing	WNMG 080404XP	0.4	●	●		●	●	●	□	□		□	●	●	●	●	□		●	●																										
		080408XP	0.8	●	●		●	●	●	□	□		○	●	●	●	●	□		●	●																										
Low Carbon Steel	Medium	WNMG 080404XQ	0.4	●	●			●	●	□	□		□	□	●	●	●	●		●	●																									2	
		080408XQ	0.8	●	●		●	●	●	□	□		□	●	●	●	●	●		●	●																										
Low Carbon Steel	Roughing	WNMG 080408XS	0.8		●				●		□		○	□	●	●	●	●		●	●																										
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing / Sharp Edge	WNGG 080404TK	0.4																																●	●								●		D22 F79 F80	
		080408TK	0.8																																●	●								●			
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	WNMG 080404TK	0.4																			●	●													●	●	●					●				
		080408TK	0.8																			●	●													●	●	●					●				
Stainless Steel / Heat-Resistant Alloys	Finishing - Medium	WNMG 080404MQ	0.4																			●	●													●	●	●	●	●	●			●			3
		080408MQ	0.8																			●	●													●	●	●	●	●	●			●			
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	WNMG 080404MS	0.4																			●	●													●	●	●	●	●	●			●			
		080408MS	0.8																			●	●													●	●	●	●	●	●			●			
		080412MS	1.2																			●	●													●	●	●	●	●	●			●			
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	WNMG 080404MU	0.4																			●	●													●	●	●	●	●	●			●			
		080408MU	0.8																			●	●													●	●	●	●	●	●			●			
Heat-resistant Alloys	NEW Roughing	WNMG 080408SG	0.8																																	●	●								●			4
		080412SG	1.2																																	●	●								●			

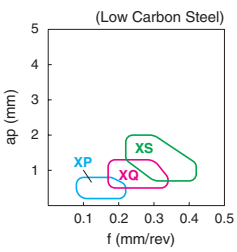
Applicable Chipbreaker Range

ap indicates radius

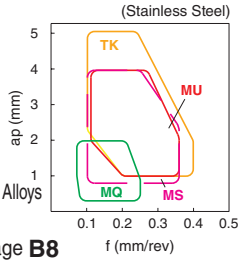
1 (Cast Iron)



2 (Low Carbon Steel)

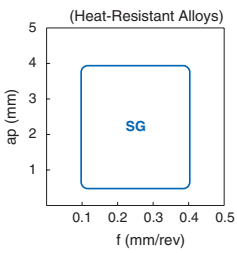


3 (Stainless Steel)



Heat-Resistant Alloys
Titanium Alloys
See Page B8

4 (Heat-Resistant Alloys)



Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

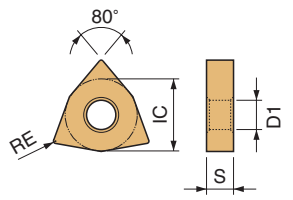
80° Trigon / Negative with Hole

(mm)

Description	IC	S	D1
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	IC	S	D1
WN_0804_	12.70	4.76	5.16



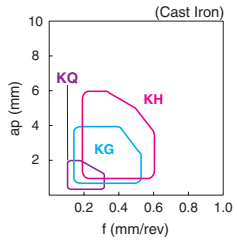
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert Handed Insert shows Right-hand	Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron	NEW Sharp Cutting Oriented	WNMG 080404KQ 080408KQ 080412KQ	0.4 0.8 1.2																					● ● ●	● ● ●	● ● ●																						
Cast Iron	NEW Roughing	WNMG 080404KG 080408KG 080412KG	0.4 0.8 1.2																					● ● ●	● ● ●	● ● ●																					1	
Cast Iron	NEW Roughing	WNMG 080408KH 080412KH 080416KH	0.8 1.2 1.6																					● ● ●	● ● ●	● ● ●																						
Cast Iron	Roughing	WNMG 080404C 080408C 080412C	0.4 0.8 1.2															● ●						● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	□ □ □																		D22 F79 F80	
Cast Iron	Roughing	WNMG 080408ZS 080412ZS	0.8 1.2															● ●	●					● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	□ □ □																			2	
Cast Iron	Roughing	WNMG 080408GC 080412GC	0.8 1.2																					● ● ●	● ● ●	● ● ●	● ●	● ●	□ □ □																			
Cast Iron	Without Chipbreaker	WNMA 080408 080412	0.8 1.2								●							● ●						● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	□ □ □																			-	
Non-ferrous Metals	Medium - Roughing / Sharp Edge	WNGG 080404AH 080408AH	0.4 0.8																																							● ●	● ●	● ●			3	
Finishing	Surface Roughness Oriented / Sharp Edge	WNGG 060402R-S 060402L-S 060404R-S 060404L-S 060408R-S 060408L-S	0.2 0.2 0.4 0.4 0.8 0.8			● ● ● ● ● ●						□ □ □ ○ □ ○																																● ● ● ● ●		D22 F78	4
Medium		WNGG 060404R 060404L	0.4 0.4			● ●																																				● ●				

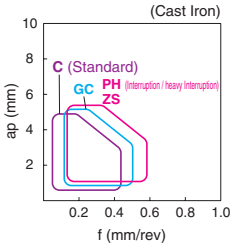
Applicable Chipbreaker Range

ap indicates radius

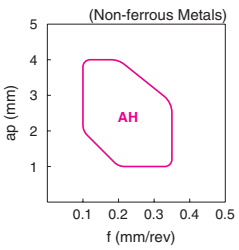
1 (Cast Iron)



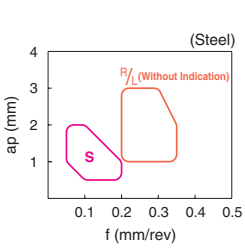
2 (Cast Iron)



3 (Non-ferrous Metals)



4 (Steel)



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

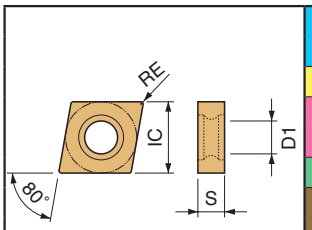
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

Small Double Sided Tools / 80° Rhombic

(mm)

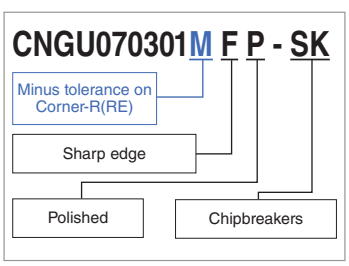
Description	IC	S	D1
CN_U0703_	7.5	3.18	3.6

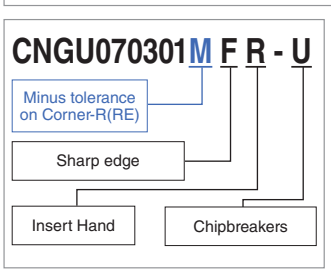


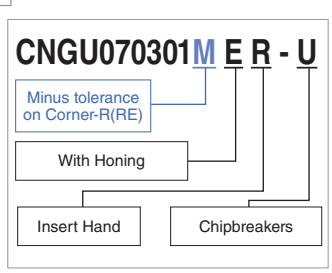
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	Sharp Edge	CNGU 070301MF-SK	<0.1																																					●							E40	B52 1
		CNGU 070302MF-SK	<0.2																																					●								
Finishing - Medium	Sharp Edge / Polished	CNGU 070301MFP-SK	<0.1																													●	●				●										
		CNGU 070302MFP-SK	<0.2																													●	●				●										
Medium - Roughing	With Honing	CNMU 070302E-GK	0.2																													●	●				●			●							
		CNMU 070304E-GK	0.4																													●	●				●			●	●						
Finishing	Sharp Edge	CNGU 0703005MFR-F	<0.05																														●														
		CNGU 070301MFR-F	<0.1																													●	●				●										
		CNGU 070302MFR-F	<0.2																													●	●				●				●						
		CNGU 070304MFR-F	<0.4																													●					●										
Low Feed	Sharp Edge	CNGU 0703005MFR-U	<0.05																														●														
		CNGU 070301MFR-U	<0.1																													●	●				●										
		CNGU 070302MFR-U	<0.2																													●	●				●				●						
		CNGU 070304MFR-U	<0.4																													●					●										
Low Feed	With Honing	CNGU 070301MER-U	<0.1																																					●							
		CNGU 070302MER-U	<0.2																																					●							
		CNGU 070304MER-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).

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.

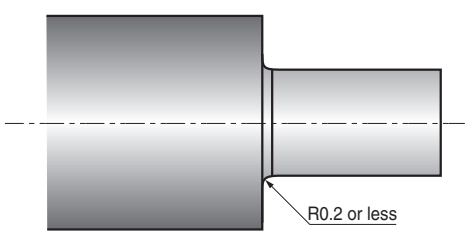


Fig. 1 Example of a specified corner-R in the drawing

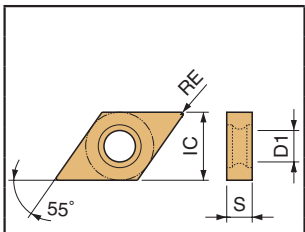
Inserts are sold in 10 piece boxes

● : Std. Item

Small Double Sided Tools / 55° Rhombic

(mm)

Description	IC	S	D1
DN_U0803_	7.0	3.18	3.6

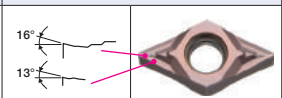
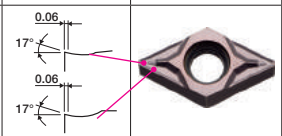
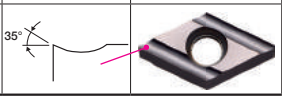


P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	Sharp Edge	DNGU 080301MF-SK	<0.1																																					●								
		DNGU 080302MF-SK	<0.2																																					●								
		DNGU 080304MF-SK	<0.4																																					●								
Finishing - Medium	Sharp Edge / Polished	DNGU 080301MFP-SK	<0.1																													●	●					●									
		DNGU 080302MFP-SK	<0.2																													●	●					●									
		DNGU 080304MFP-SK	<0.4																													●	●					●									
Medium - Roughing	With Honing	DNMU 080302E-GK	0.2																													●	●					●			●						
		DNMU 080304E-GK	0.4																													●	●					●			●						
Finishing	Sharp Edge	DNGU 080301MFR-F	<0.1																													●	●					●			●					E40	B52 2
		DNGU 080302MFR-F	<0.2																													●	●					●			●						
		DNGU 080304MFR-F	<0.4																													●	●					●			●						
Low Feed	Sharp Edge	DNGU 0803005MFR-U	<0.05																													●	●					●			●						
		DNGU 080301MFR-U	<0.1																													●	●					●			●						
		DNGU 080302MFR-U	<0.2																													●	●					●			●						
		DNGU 080304MFR-U	<0.4																													●	●					●			●						
Low Feed	With Honing	DNGU 080301MER-U	<0.1																																					●								
		DNGU 080302MER-U	<0.2																																					●								
		DNGU 080304MER-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).

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.

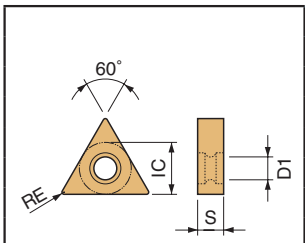
● : Std. Item

Inserts are sold in 10 piece boxes

Small Double Sided Tools / 60° Triangle

(mm)

Description	IC	S	D1
TN_U0903_	5.56	3.18	3.0



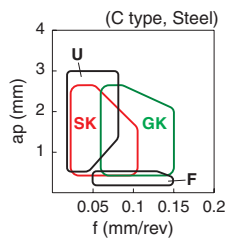
		Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																					MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide			DLC		Carbide			
Insert	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Right-hand																																													
Finishing	Sharp Edge		TNGU 0903005MFR-F	<0.05																										●	●					●		●	●	●							
			090301MFR-F	<0.1																										●	●					●		●	●	●							
			090302MFR-F	<0.2																										●	●					●		●	●	●							
			090304MFR-F	<0.4																										●	●					●		●	●	●							
Low Feed	Sharp Edge		TNGU 0903005MFR-U	<0.05																										●	●					●			●	●					E41	3	
			090301MFR-U	<0.1																										●	●					●			●	●							
			090302MFR-U	<0.2																										●	●					●			●	●							
			090304MFR-U	<0.4																										●	●					●			●	●							
Low Feed	With Honing		TNGU 090302MER-U	<0.2																																				□						
			090304MER-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

ap indicates radius

1



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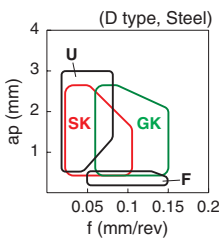
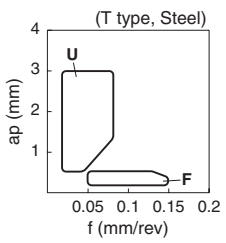


3



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

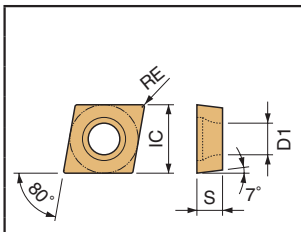
How to read pages of "Turning Inserts" See Page B15 (mm)

80° Rhombic / Positive with Hole

*Thickness of CC_0301_ and CC_0401_ are different (mm)

Description	IC	S	D1
*CC_0301_	3.5	1.4	1.9
*CC_0401_	4.3	1.8	2.3

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	Sharp Edge	*CCGT 030101M-CF	<0.1																																			●	●						F19 F41	
		030102M-CF	<0.2																																			●	●							
		*CCGT 040101M-CF	<0.1																																			●	●							
		040102M-CF	<0.2																																			●	●							
Minute ap	Sharp Edge / Polished	*CCGT 030101MP-CF	<0.1																													●	●				●		●			●	●				
		030102MP-CF	<0.2																													●	●				●		●			●	●				
		*CCGT 040101MP-CF	<0.1																													●	●				●		●			●	●				
		040102MP-CF	<0.2																													●	●				●		●			●	●				
Finishing	NEW Sharp Edge / Polished	*CCGT 030101MFP-PF	<0.1																													●					●										
		030102MFP-PF	<0.2																													●					●										
		*CCGT 040101MFP-PF	<0.1																													●					●										
		040102MFP-PF	<0.2																													●					●										
		CCGT 060201MFP-PF	<0.1																													●					●										
		060202MFP-PF	<0.2																													●					●										
		060204MFP-PF	<0.4																													●					●										
Finishing	Sharp Edge	CCGT 060201MF-GF	<0.1																																				●								
		060202MF-GF	<0.2																																				●								
		CCGT 09T301MF-GF	<0.1																																				●								
		09T302MF-GF	<0.2																																				●								
		09T304MF-GF	<0.4																																				●								
Finishing	Sharp Edge	CCGT 060201MFP-GF	<0.1																													●					●										
		060202MFP-GF	<0.2																													●					●										
		060204MFP-GF	<0.4																													●					●										
	Sharp Edge / Polished	CCGT 09T301MFP-GF	<0.1																													●					●										
		09T302MFP-GF	<0.2																													●					●										
		09T304MFP-GF	<0.4																													●					●										
Finishing	Sharp Edge / Polished	CCGT 060201MFP-SK	<0.1																													●					●						●	●			
		060202MFP-SK	<0.2																													●					●						●	●			
		060204MFP-SK	<0.4																													●					●						●	●			
		CCGT 09T301MFP-SK	<0.1																													●					●						●	●			
		09T302MFP-SK	<0.2																													●					●						●	●			
		09T304MFP-SK	<0.4																													●					●						●	●			
Finishing	Sharp Edge / Polished	CCGT 060201MP-CK	<0.1																													●	●				●		●				●	●			
		060202MP-CK	<0.2																													●	●				●		●				●	●			
		CCGT 09T301MP-CK	<0.1																													●	●				●		●				●	●			
		09T302MP-CK	<0.2																													●	●				●		●				●	●			
Finishing - Medium	Sharp Edge	CCGT 060201MF-GQ	<0.1																																				●								
		060202MF-GQ	<0.2																																				●								
		060204MF-GQ	<0.4																																				●								
		CCGT 09T301MF-GQ	<0.1																																				●								
		09T302MF-GQ	<0.2																																				●								
		09T304MF-GQ	<0.4																																				●								

Ref. to the table below

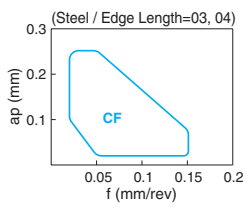
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Insert Description	See Page for Applicable Toolholders	Insert Description	See Page for Applicable Toolholders
CC..0602 type	**E22,E23,E37,F19,F41**	CC..09T3 type	**E22,E23,E37,F41,F67**

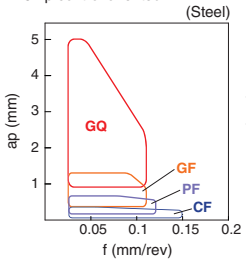
Applicable Chipbreaker Range

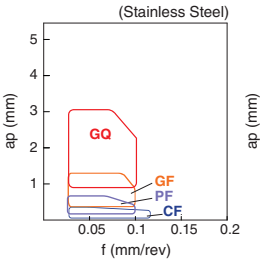
ap indicates radius

1

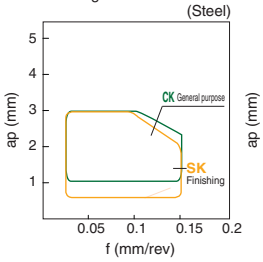


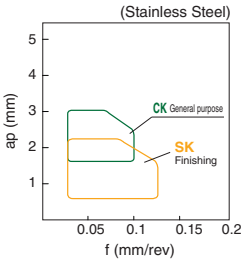
· Chip control oriented





· Low cutting force





● : Std. Item

Inserts are sold in 10 piece boxes

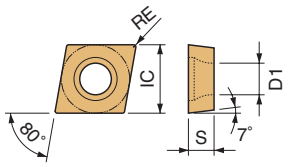
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

(mm)

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5

80° Rhombic / Positive with Hole



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

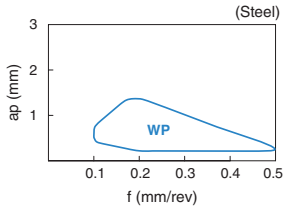
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	Sharp Edge / Polished	CCGT 060201MFP-GQ	<0.1																											●	●						●			●						
		060202MFP-GQ	<0.2																											●	●						●			●						B53
		060204MFP-GQ	<0.4																											●	●						●			●						
		CCGT 09T301MFP-GQ	<0.1																											●	●						●			●						1
		09T302MFP-GQ	<0.2																											●	●						●			●						
		09T304MFP-GQ	<0.4																											●	●						●			●						
With Wiper Edge	NEW Finishing	CCMT 060202WP	0.2	●	●			●	●					●	●	●	●	●													●	●														
		060204WP	0.4	●	●			●	●					●	●	●	●	●													●	●														
		060208WP	0.8	●	●			●	●					●	●	●	●	●													●	●														1
		CCMT 09T302WP	0.2	●	●			●	●					●	●	●	●	●													●	●														
		09T304WP	0.4	●	●			●	●					●	●	●	●	●													●	●														
		09T308WP	0.8	●	●			●	●					●	●	●	●	●													●	●														
Finishing		CCMT 060202PP	0.2	●	●	□		●	●	□	□			●	●	●	●	●	□												●	●						●									
		060204PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●	●												●	●						●									
		CCMT 09T302PP	0.2	●	●	□		●	●	□	□			□	●	●	●	●													●	●						●									
		09T304PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●													●	●						●									
		09T308PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●													●	●						●									
Finishing - Medium		CCMT 060202GK	0.2	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●								●							●	●							Ref. to the table below B53	
		060204GK	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●	●	●		●			●							●	●								
		CCMT 09T302GK	0.2	●	●	□		●	●	□	□			□	●	●	●	●		●	●	●	●								●							●	●								
		09T304GK	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●	●	●		●			●							●	●								
		CCMT 120404GK	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●	●	●		●										●	●								
		120408GK	0.8	●	●	□		●	●		□			●	●	●	●	●		●	●	●	●	●	●	●		●										●	●						E23		
		120412GK	1.2											●	●	●	●	□			●		●														●									
Finishing - Medium		CCMT 060202HQ	0.2	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●								●							●	●							Ref. to the table below B53	
		060204HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●								●							●	●								
		CCMT 09T302HQ	0.2	●	●	□	●	●	●	□	□		□	□	●	●	●	●		●	●	●	●								●							●	●								
		09T304HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●								●							●	●								2
		09T308HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●								●							●	●								
Medium		CCGT 060201	0.1	●	●	□	●	●	●		□	□																										●								
		060202	0.2	●	●	□	●	●	●		□	□																										●								
		060204	0.4	●	●	□	●	●	●		□	□																										●								
		CCGT 09T301	0.1	●	●	□	●	●	●		□	○																										●								
		09T302	0.2	●	●	□	●	●	●		□	○																										●								
		09T304	0.4	●	●	□	●	●	●		□	○																										●								
		CCMT 09T308	0.8	●	●	□	●	●	●		□	●	□	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	□	●							●	●		●	●				Ref. to the table below B53	
		CCGT 0602005M	<0.05																																					●						
		060201M	<0.1																																					●						
		060202M	<0.2																																					●						
		060204M	<0.4																																					●						
		CCGT 09T3005M	<0.05																																					●						
		09T301M	<0.1																																					●						
		09T302M	<0.2																																					●						
		09T304M	<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).

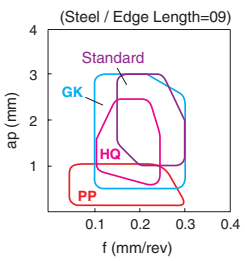
Applicable Chipbreaker Range

ap indicates radius

1



2



Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

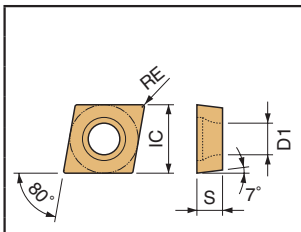
(mm)

80° Rhombic / Positive with Hole

*Thickness of CC_0301_ and CC_0401_ are different (mm)

Description	IC	S	D1
*CC_0301_	3.5	1.4	1.9
*CC_0401_	4.3	1.8	2.3

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	CCGT 0602005MF	<0.05																											●	●					●			●									
	CCGT 060201MF	<0.1																											●	●					●			●									
	CCGT 060202MF	<0.2																											●	●					●			●		●	●						
	CCGT 060204MF	<0.4																											●	●					●			●		●	●						B54
	CCGT 09T3005MF	<0.05																											●	●					●			●									
	CCGT 09T301MF	<0.1																											●	●					●			●									
	CCGT 09T302MF	<0.2																											●	●					●			●		●	●						
Sharp Edge	CCGT 09T304MF	<0.4																											●	●					●			●		●	●						2
Stainless Steel / Heat-Resistant Alloys	CCMT 09T304MQ	0.4																				●	●												●	●	●	●							●		
Finishing - Medium	CCMT 09T308MQ	0.8																				●	●												●	●	●	●							●		1
Finishing	*CCET 0301003R-FSF	0.03																																				●									
Super Fine	*CCET 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 0401003R-FSF	0.03																																				□									
	*CCET 0401003L-FSF	0.03																																				●									
	040101R-FSF	0.1			□																																	●									
	040101L-FSF	0.1			□	●																																●									
	040102R-FSF	0.2			□	●																																●									
	040102L-FSF	0.2			□	●																																●									
	040104R-FSF	0.4			□																																	●									
	040104L-FSF	0.4			□	●																																●									
Sharp Edge / Precision	*CCET 0301005MR-FSF	<0.05																												●																
	*CCET 0301005ML-FSF	<0.05																												●										●							
	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	<0.05																												●																
	040101MR-FSF	<0.1																												●										●							
	040101ML-FSF	<0.1																												●										●							
	040102MR-FSF	<0.2																												●										●							
	040102ML-FSF	<0.2																												●										●							
	040104MR-FSF	<0.4																												●																
	040104ML-FSF	<0.4																												●										●							

Ref. to the table below B53

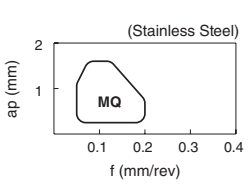
F19 F41

· 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).

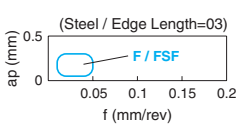
Applicable Chipbreaker Range

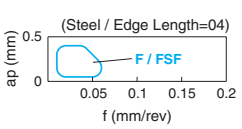
ap indicates radius

1



2





● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

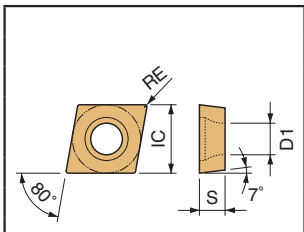
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

80° Rhombic / Positive with Hole

*Thickness of CC_0301_ and CC_0401_ are different (mm)

Description	IC	S	D1
*CC_0301_	3.5	1.4	1.9
*CC_0401_	4.3	1.8	2.3



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

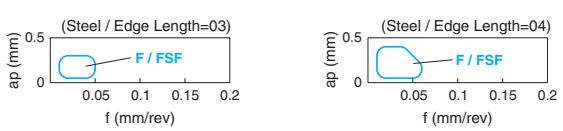
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	*CCET 0301005MR-F	<0.05																											●						●											
	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	<0.1	●				●																						●						●											
	040101ML-F	<0.1	●	●			●	●																					●						●						●	●				
	040102MR-F	<0.2	●				●																						●						●											
	040102ML-F	<0.2	●	●			●	●																					●						●						●	●				
	040104MR-F	<0.4	●				●																						●						●											
Sharp Edge	040104ML-F	<0.4	●	●			●	●																					●						●						●	●				
Finishing	*CCGT 0301003R-F	0.03				●																														●											
	0301003L-F	0.03				●																														●											
	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 0401003R-F	0.03																																		□										F19 F41	1
	0401003L-F	0.03																																		●											
	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 0301005MR-F	<0.05																													●																
	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																													●										●	●				
	*CCGT 0401005ML-F	<0.05																													●										●						
	040101MR-F	<0.1																													●																
	040101ML-F	<0.1																													●										●						
	040102MR-F	<0.2																													●										●						
	040102ML-F	<0.2																													●										●	●				
	040104MR-F	<0.4																													●										●						
Sharp Edge	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

ap indicates radius

1



Inserts are sold in 10 piece boxes

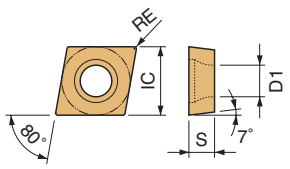
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

(mm)

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5

80° Rhombic / Positive with Hole



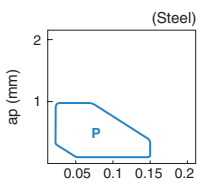
		Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																				MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide			
Insert	Description																																														
Handed Insert shows Left-hand		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	NEW Sharp Edge	CCET 09T301MR-P	<0.1																										●						●												
		09T301ML-P	<0.1																										●						●												
		09T302MR-P	<0.2																										●						●											1	
		09T302ML-P	<0.2																										●						●												
		09T304MR-P	<0.4																										●						●												
		09T304ML-P	<0.4																										●						●												
Low Feed	Super Fine	CCET 0602003FR-USF	0.03																																			●									
		0602003FL-USF	0.03																																			●									
		060201FR-USF	0.1				●																															●									
		060201FL-USF	0.1			□	●																															●									
		060202FR-USF	0.2			□	●																															●									
		060202FL-USF	0.2			□	●																															●									
		CCET 09T3003FR-USF	0.03				●																															●									
		09T3003FL-USF	0.03				●																															●									
		09T301FR-USF	0.1			□	●																															●									
		09T301FL-USF	0.1			□	●																															●									
		09T302FR-USF	0.2			□	●																															●									
		09T302FL-USF	0.2			□	●																															●									
		CCET 0602005MFR-USF	<0.05																												●										●						
		0602005MFL-USF	<0.05																												●										●						
		060201MFR-USF	<0.1																												●										●						
		060201MFL-USF	<0.1																												●										●						
		060202MFR-USF	<0.2																												●										●						
		060202MFL-USF	<0.2																												●										●						
		CCET 09T3005MFR-USF	<0.05																												●										●						
		09T3005MFL-USF	<0.05																												●										●						
		09T301MFR-USF	<0.1																												●										●						
		09T301MFL-USF	<0.1																												●										●						
		09T302MFR-USF	<0.2																												●										●						
		09T302MFL-USF	<0.2																												●										●						
	Sharp Edge / Precision																																												Ref. to the table below B53	2
Low Feed	Sharp Edge	CCET 0602005MFR-U	<0.05																										●														●			
		0602005MFL-U	<0.05																										●														●			
		060201MFR-U	<0.1	●	●		●	●																					●													●	●			
		060201MFL-U	<0.1	●	●		●	●																					●													●	●			
		060202MFR-U	<0.2	●	●		●	●																					●													●	●			
		060202MFL-U	<0.2	●	●		●	●																					●													●	●			
		CCET 09T3005MFR-U	<0.05																										●																		
		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).

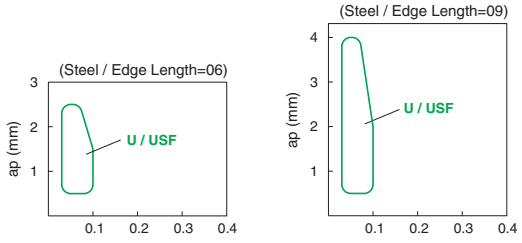
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

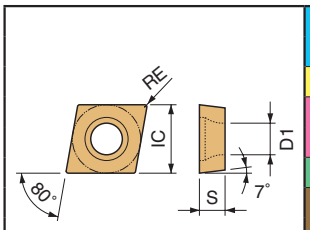
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

(mm)

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5

80˚ Rhombic / Positive with Hole



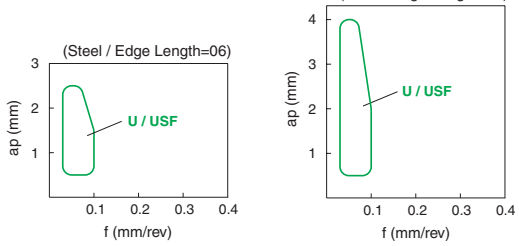
P Free-cutting steel; Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron; Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys; Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed	CCGT 0602003FR-U	0.03				●																															●						●		Ref. to the table below B53	1
	0602003FL-U	0.03				●																															●						●			
	060201FR-U	0.1				●				□																											●						●			
	060201FL-U	0.1				●				□																											●						●			
	060202FR-U	0.2				●				□																											●						●			
	060202FL-U	0.2			□	●				□		□																									●						●			
	CCGT 09T3003FR-U	0.03				●																															●						●			
	09T3003FL-U	0.03				●																															●						●			
	09T301FR-U	0.1			□	●																															●						●			
	09T301FL-U	0.1			□	●																															●						●			
	09T302FR-U	0.2			□	●																															●						●			
	09T302FL-U	0.2			□	●																															●						●			
	CCGT 0602005MFR-U	<0.05																																	●				●	●								
	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	<0.05																																	●				●	●								
	09T3005MFL-U	<0.05																																	●				●	●								
	09T301MFR-U	<0.1																																	●				●	●								
	09T301MFL-U	<0.1																																	●				●	●								
	09T302MFR-U	<0.2																																	●				●	●								
	09T302MFL-U	<0.2																																	●				●	●								
	09T304MFR-U	<0.4																																	●					●								
Sharp Edge	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 — ap indicates radius

1



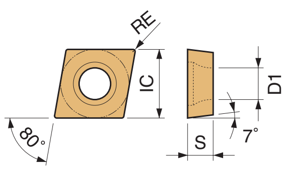
Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

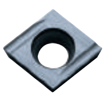
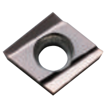
How to read pages of "Turning Inserts" ➔ See Page **B15** (mm)

80° Rhombic / Positive with Hole

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5



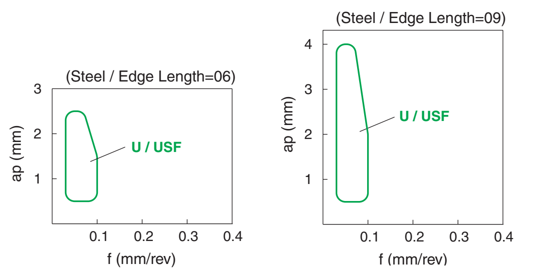
		TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05
P	Free-cutting steel																																											
P	Carbon Steel / Alloy Steel	●	◐	○		●	◐		◔																				◐	◔							◔		◔					
M	Stainless Steel																												◔	◔						◐	◔		◔					
K	Gray Cast Iron																																											
K	Nodular Cast Iron																																											
N	Non-ferrous Metals																																											
S	Heat-resistant Alloys																																			◐			◔					
S	Titanium Alloys																																			◐								
H	Hard Materials																																											

Insert	Description	Dimension (mm)	Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Left-hand		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Low Feed, With Honing 	CCGT 060201ER-U	0.1	●				●			□																												●								Ref. to the table below B53	1
	060201EL-U	0.1	●	●	□	●	●	●		□																												●									
	060202ER-U	0.2	●	●	□	●	●	●		□																												●									
	060202EL-U	0.2	●	●	□	●	●	●		□																												●									
	060204ER-U	0.4	●	●		●	●	●		□																												●									
	060204EL-U	0.4	●	●	□	●	●	●		□																												●									
	CCGT 09T301ER-U	0.1	●	●	□	●	●	●		□																												●									
	09T301EL-U	0.1	●	●	□	●	●	●		□																												●									
	09T302ER-U	0.2	●	●	□	●	●	●		□																												●									
	09T302EL-U	0.2	●	●	□	●	●	●		□																												●									
	09T304ER-U	0.4	●	●	□	●	●	●		□																												●									
	09T304EL-U	0.4	●	●	□	●	●	●		□																												●									
	CCGT 060202MER-U	<0.2																																						□							
	060202MEL-U	<0.2																																						●							
	060204MER-U	<0.4																																						●							
	060204MEL-U	<0.4																																						●							
	CCGT 09T301MER-U	<0.1																																						●							
	09T302MER-U	<0.2																																						●							
	09T302MEL-U	<0.2																																						●							
	09T304MER-U	<0.4																																						●							
	09T304MEL-U	<0.4																																						●							
Low Feed, Sharp Edge 	CCET 0602005MFR-J	<0.05																												●							●										2
	060201MFR-J	<0.1																												●	●						●										
	060201MFL-J	<0.1																												●	●						●										
	060202MFR-J	<0.2																												●	●						●										
	060202MFL-J	<0.2																												●	●						●										
	CCET 09T301MFR-J	<0.1																												●	●						●										
	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
ap indicates radius

1



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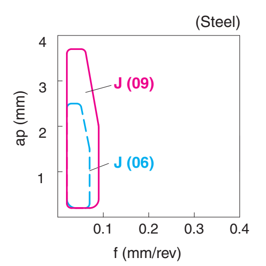


● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

A Insert Grades
B Turning Indexable Inserts
C CBN & PCD Tools
D External
E Small Parts Machining
F Boring
G Grooving
H Cut-off
J Threading
K Drilling
L Solid Tools
M Milling
N Tools for Turning Mill
P Spare Parts
R Technical Information
T Index

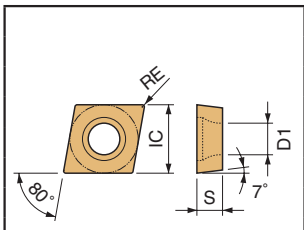
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

80° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
CC_0602_	6.35	2.38	2.8
CC_09T3_	9.525	3.97	4.4
CC_1204_	12.7	4.76	5.5



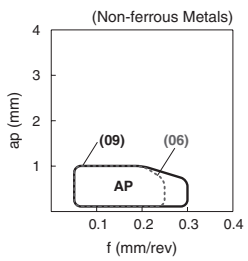
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals	CCGT 060202AP	0.2																																							●		●		Ref. to the table below B53	1
NEW	CCGT 060204AP	0.4																																							●		●			
Finishing / Sharp Edge	CCGT 09T302AP	0.2																																							●		●			
	CCGT 09T304AP	0.4																																							●		●			
	CCGT 09T308AP	0.8																																							●		●			
Non-ferrous Metals	CCGT 09T302R-A3	0.2																																							●	●	●		Ref. to the table below B53	2
	CCGT 09T302L-A3	0.2																																							●	●	●			
	CCGT 09T304R-A3	0.4																																							●	●	●			
	CCGT 09T304L-A3	0.4																																							●	●	●			
	CCGT 09T308R-A3	0.8																																							●	●	●			
	CCGT 09T308L-A3	0.8																																							●	●	●			
	CCGT 120402R-A3	0.2																																								●	●	●	E23		
	CCGT 120402L-A3	0.2																																								●	●	●			
	CCGT 120404R-A3	0.4																																								●	●	●			
	CCGT 120404L-A3	0.4																																								●	●	●			
	CCGT 120408R-A3	0.8																																								●	●	●			
	CCGT 120408L-A3	0.8																																								●	●	●			
Non-ferrous Metals	CCGT 09T304AH	0.4																																							●	●	●		Ref. to the table below B53	-
Finishing - Medium / Sharp Edge	CCGT 09T308AH	0.8																																							●	●	●			
Cast Iron	CCGW 060201	0.1																																										●			
	CCGW 060202	0.2																																										●			
Without Chipbreaker	CCGW 09T300	0.0																																										●			
	CCGW 09T301	0.1																																										●			
	CCGW 09T302	0.2																																										●			
	CCGW 09T304	0.4																																										●			

Applicable Chipbreaker Range

ap indicates radius

1



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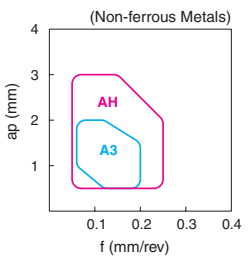


Inserts are sold in 10 piece boxes

● : Std. Item

How to read pages of "Turning Inserts" See Page B15

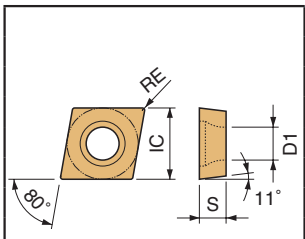
80° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
CPMT0802_	7.94	2.38	3.3
CPMT0903_	9.525	3.18	4.4

(mm)

Description	IC	S	D1
CP_0802_	7.94	2.38	3.5
CP_0903_	9.525	3.18	4.5



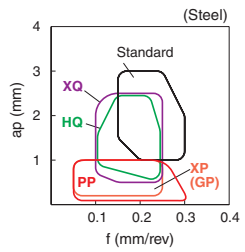
P Free-cutting steel; Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron; Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys; Titanium Alloys
H Hard Materials

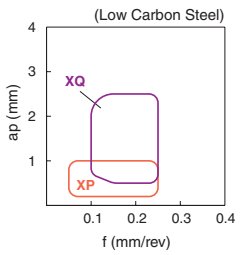
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	CPMT 080202PP	0.2	●	●			●	●		□	□		□	●	●	●	□												●	●					●											
	CPMT 080204PP	0.4	●	●			●	●	□	□			●	●	●	●	●												●	●					●											
Finishing	CPMT 090302PP	0.2	●	●	□		●	●	□	□			□	●	●	●	●												●	●					●											
	CPMT 090304PP	0.4	●	●	□		●	●	□	□			□	●	●	●	●												●	●					●											
	CPMT 090308PP	0.8	●	●	□		●	●		□			●	●	●	●	●												●	●					●											
Finishing	CPMT 080204GP	0.4	●	●	□	●	●	●	□	□		□	□	●	●	●	□		●	●									●						●		●		●							
	CPMT 090304GP	0.4	●	●	□	●	●	●	□	□		○	□	●	●	●	□		●	●									●						●		●		●							
	090308GP	0.8	●	●		●	●	●	□	□		○	□	●	●	●	●		●	●									●						●		●									
Finishing - Medium	CPMH 080204HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●	●						●						●		●		●	●						
	080208HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●	●						●						●		●		●	●						
Finishing - Medium	CPMH 090304HQ	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●	●						●						●		●		●	●						1
	090308HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●	●						●						●		●		●	●						
Medium	CPMH 080204	0.4	●	●	□	●	●	●	□	□	●	□	●	●	●	●	●	●	●	●		●	●	●	●	●		●	□	●						●		●	●						
	080208	0.8	●	●	□	●	●	●	□	□	●	□	□	●	●	●	●		●	●		●	●	●	●	●		●	□	●						●		●	●						
Medium	CPMH 090304	0.4	●	●	□	●	●	●	□	□	●	□	□	●	●	●	●	●	●	●		●	●	●	●	●	●	●	□	●						●		●	●						
	090308	0.8	●	●	□	●	●	●	□	□	●	□	□	●	●	●	●		●	●		●	●	●	●	●	●	●	□	●						●		●	●						
Low Carbon Steel	CPMT 080204XP	0.4	●	●			●	●	□	□		□	●	●	●	●	●		●	●										●						●		●							F43	
Low Carbon Steel Finishing	CPMT 090304XP	0.4	●	●			●	●	□	□		□	□	●	●	●	□		●	●										●						●		●								
	090308XP	0.8	●	●			●	●	□	□		○	●	●	●	●	●		●	●										●						●		●								
Low Carbon Steel Finishing - Medium	CPMT 090304XQ	0.4	●	●			●	●	□	□		○	●	●	●	●	●		●	●																									
	090308XQ	0.8	●	●			●	●	□	□		○	●	●	●	●	●		●	●																									
Finishing - Medium	CPMH 080204R-Y	0.4	●	●	□	●	●	●																											●		●							
	080204L-Y	0.4	●	●	□	●	●	●				□																							●		●							
	080208L-Y	0.8																																	●									
	CPMH 090304R-Y	0.4	●	●	□	●	●	●				○																							●		●							2
	090304L-Y	0.4	●	●	□	●	●	●				○																							●		●							
	090308R-Y	0.8																																	●									
	090308L-Y	0.8				●						□																							●									
Cast Iron	CPMB 080202	0.2																																									●		
	080204	0.4																																								●		
	080208	0.8																																								●		
Without Chipbreaker	CPMB 090302	0.2																																								●		-
	090304	0.4																																								●		
	090308	0.8																																								●		

Applicable Chipbreaker Range

ap indicates radius

1





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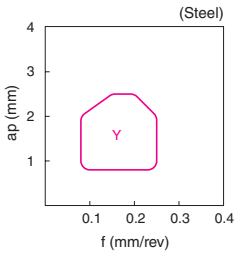


● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

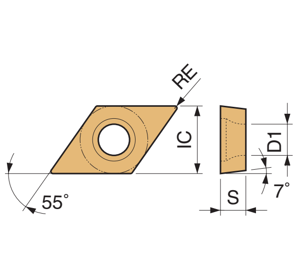
How to read pages of "Turning Inserts" ➡ See Page B15

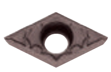
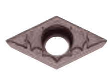
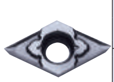
55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



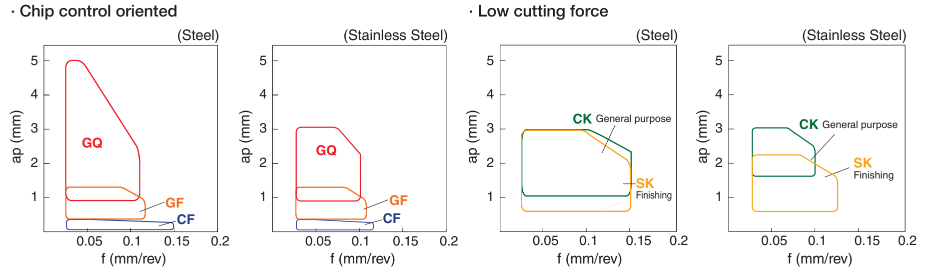
Insert	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
		Dimension (mm)	Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide			
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 Alloys																																		◐										
S	Titanium Alloys																																		◐										
H	Hard Materials																																												
Minute ap  Sharp Edge	DCGT 070202CF	0.2																																		●								Ref. to the table above	1
Minute ap, Sharp Edge	DCGT 11T302CF	0.2																																		●									
Minute ap, Sharp Edge	DCGT 070201M-CF	<0.1																																				●							
Minute ap, Sharp Edge	DCGT 070202M-CF	<0.2																																			●	●							
Minute ap, Sharp Edge	DCGT 11T301M-CF	<0.1																																			●	●							
Minute ap, Sharp Edge	DCGT 11T302M-CF	<0.2																																			●	●							
Minute ap  Sharp Edge / Polished	DCGT 070201MP-CF	<0.1																										●	●						●			●		●	●				
Minute ap, Sharp Edge / Polished	DCGT 070202MP-CF	<0.2																										●	●						●			●		●	●				
Minute ap, Sharp Edge / Polished	DCGT 11T301MP-CF	<0.1																										●	●						●			●		●	●				
Minute ap, Sharp Edge / Polished	DCGT 11T302MP-CF	<0.2																										●	●						●			●		●	●				
Finishing  Sharp Edge	DCGT 070201MF-GF	<0.1																																				●							
Finishing, Sharp Edge	DCGT 070202MF-GF	<0.2																																				●							
Finishing, Sharp Edge	DCGT 11T301MF-GF	<0.1																																				●							
Finishing, Sharp Edge	DCGT 11T302MF-GF	<0.2																																				●							
Finishing, Sharp Edge	DCGT 11T304MF-GF	<0.4																																				●							
Finishing  Sharp Edge / Polished	DCGT 070201MFP-GF	<0.1																										●	●						●			●							
Finishing, Sharp Edge / Polished	DCGT 070202MFP-GF	<0.2																										●	●						●			●							
Finishing, Sharp Edge / Polished	DCGT 070204MFP-GF	<0.4																										●	●						●										
Finishing, Sharp Edge / Polished	DCGT 11T301MFP-GF	<0.1																										●	●						●			●							
Finishing, Sharp Edge / Polished	DCGT 11T302MFP-GF	<0.2																										●	●						●			●							
Finishing, Sharp Edge / Polished	DCGT 11T304MFP-GF	<0.4																										●	●						●			●							
Finishing  Sharp Edge / Polished	DCGT 070201MFP-SK	<0.1																										●	●						●					●	●				
Finishing, Sharp Edge / Polished	DCGT 070202MFP-SK	<0.2																										●	●						●					●	●				
Finishing, Sharp Edge / Polished	DCGT 070204MFP-SK	<0.4																										●	●						●					●	●				
Finishing, Sharp Edge / Polished	DCGT 11T301MFP-SK	<0.1																										●	●						●					●	●				
Finishing, Sharp Edge / Polished	DCGT 11T302MFP-SK	<0.2																										●	●						●					●	●				
Finishing, Sharp Edge / Polished	DCGT 11T304MFP-SK	<0.4																										●	●						●					●	●				
Finishing 	DCGT 070201CK	0.1																																		●									
Finishing	DCGT 070202CK	0.2																																		●									
Finishing	DCGT 11T301CK	0.1																																		●									
Finishing	DCGT 11T302CK	0.2																																		●									
Finishing	DCGT 070201M-CK	<0.1																																			●	●							
Finishing	DCGT 070202M-CK	<0.2																																			●	●							
Finishing	DCGT 11T301M-CK	<0.1																																			●	●							
Finishing	DCGT 11T302M-CK	<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
ap indicates radius

1

· Chip control oriented · Low cutting force



Inserts are sold in 10 piece boxes

● : Std. Item

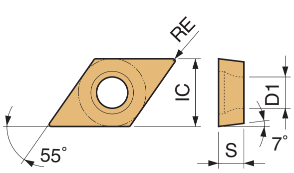
How to read pages of "Turning Inserts" ➡ See Page **B15**

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

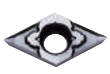
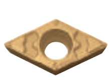
(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



Work material: P = Free-cutting steel / Carbon Steel / Alloy Steel; M = Stainless Steel; K = Gray Cast Iron / Nodular Cast Iron; N = Non-ferrous Metals; S = Heat-resistant Alloys / Titanium Alloys; H = Hard Materials

Cermet / MEGACOAT Cermet / PVD Coated Cermet

Insert (Handed Insert shows Left-hand)	Description	RE (mm)	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90
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 Alloys												
S Titanium Alloys												
H Hard Materials												
Finishing  Sharp Edge / Polished	DCGT 070201MP-CK	<0.1										
	070202MP-CK	<0.2										
	DCGT 11T301MP-CK	<0.1										
	11T302MP-CK	<0.2										
Finishing - Medium  Sharp Edge	DCGT 070201MF-GQ	<0.1										
	070202MF-GQ	<0.2										
	070204MF-GQ	<0.4										
	DCGT 11T301MF-GQ	<0.1										
	11T302MF-GQ	<0.2										
	11T304MF-GQ	<0.4										
Finishing - Medium  Sharp Edge / Polished	DCGT 070201MFP-GQ	<0.1										
	070202MFP-GQ	<0.2										
	070204MFP-GQ	<0.4										
	DCGT 11T301MFP-GQ	<0.1										
	11T302MFP-GQ	<0.2										
	11T304MFP-GQ	<0.4										
With Wiper Edge NEW  Finishing	DCMX 070202WP	0.2	●	●			●	●				
	070204WP	0.4	●	●			●	●				
	070208WP	0.8	●	●			●	●				
	DCMX 11T302WP	0.2	●	●			●	●				
	11T304WP	0.4	●	●			●	●				
	11T308WP	0.8	●	●			●	●				
With Wiper Edge NEW  Finishing	DCMX 070204R-WP	0.4		●				●				
	070204L-WP	0.4		●				●				
	DCMX 11T304R-WP	0.4		●				●				
	11T304L-WP	0.4		●				●				
Finishing 	DCMT 070202PP	0.2	●	●			●	●	□	□		
	070204PP	0.4	●	●	□		●	●	□	□		
	DCMT 11T302PP	0.2	●	●	□		●	●	□	□		
	11T304PP	0.4	●	●	□		●	●	□	□		
	11T308PP	0.8	●	●	□		●	●	□	□		
Finishing 	DCMT 070202GP	0.2	●	●	□	●	●	●	□	□		□
	070204GP	0.4	●	●	□	●	●	●	□	□		○
	DCMT 11T304GP	0.4	●	●	□	●	●	●	□	□		○
	11T308GP	0.8	●	●	□	●	●	●	□	□		○

CVD Coated Carbide

Description	RE	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120
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 Alloys																		
S Titanium Alloys																		
H Hard Materials																		
DCGT 070201MP-CK	<0.1																	
070202MP-CK	<0.2																	
DCGT 11T301MP-CK	<0.1																	
11T302MP-CK	<0.2																	
DCGT 070201MF-GQ	<0.1																	
070202MF-GQ	<0.2																	
070204MF-GQ	<0.4																	
DCGT 11T301MF-GQ	<0.1																	
11T302MF-GQ	<0.2																	
11T304MF-GQ	<0.4																	
DCGT 070201MFP-GQ	<0.1																	
070202MFP-GQ	<0.2																	
070204MFP-GQ	<0.4																	
DCGT 11T301MFP-GQ	<0.1																	
11T302MFP-GQ	<0.2																	
11T304MFP-GQ	<0.4																	
DCMX 070202WP	0.2	●	●	●	●	●												
070204WP	0.4	●	●	●	●	●												
070208WP	0.8	●	●	●	●	●												
DCMX 11T302WP	0.2	●	●	●	●	●												
11T304WP	0.4	●	●	●	●	●												
11T308WP	0.8	●	●	●	●	●												
DCMX 070204R-WP	0.4																	
070204L-WP	0.4																	
DCMX 11T304R-WP	0.4																	
11T304L-WP	0.4																	
DCMT 070202PP	0.2	●	●	●	●	●												
070204PP	0.4	●	●	●	●	●												
DCMT 11T302PP	0.2	●	●	●	●	●												
11T304PP	0.4	●	●	●	●	●												
11T308PP	0.8	●	●	●	●	●												
DCMT 070202GP	0.2	□	●	●	●	□		●	●									
070204GP	0.4	●	●	●	●	□		●	●									
DCMT 11T304GP	0.4	□	●	●	●	●		●	●									
11T308GP	0.8	□	●	●	●	□		●										

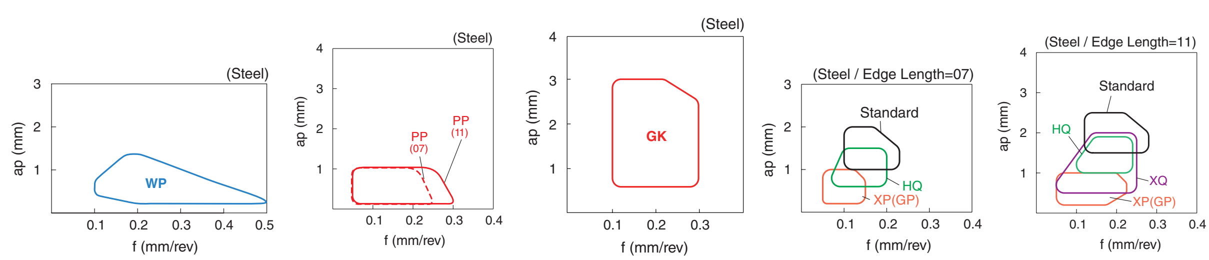
MEGACOAT (PVD Coated Carbide) / PVD Coated Carbide / DLC / Carbide

Description	RE	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
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 Alloys									◕										
S Titanium Alloys									◕							◔			
H Hard Materials																			
DCGT 070201MP-CK	<0.1	●	●						●			●		●	●			Ref. to the table above	B62 1
070202MP-CK	<0.2	●	●						●			●		●	●				
DCGT 11T301MP-CK	<0.1	●	●						●			●		●	●	●			
11T302MP-CK	<0.2	●	●						●			●		●	●	●			
DCGT 070201MF-GQ	<0.1											●							
070202MF-GQ	<0.2											●							
070204MF-GQ	<0.4											●							
DCGT 11T301MF-GQ	<0.1											●							
11T302MF-GQ	<0.2											●							
11T304MF-GQ	<0.4											●							
DCGT 070201MFP-GQ	<0.1	●	●						●			●							
070202MFP-GQ	<0.2	●	●						●			●							
070204MFP-GQ	<0.4	●	●						●			●							
DCGT 11T301MFP-GQ	<0.1	●	●						●			●							
11T302MFP-GQ	<0.2	●	●						●			●							
11T304MFP-GQ	<0.4	●	●						●			●							
DCMX 070202WP	0.2	●	●																1
070204WP	0.4	●	●																
070208WP	0.8	●	●																
DCMX 11T302WP	0.2	●	●																
11T304WP	0.4	●	●																
11T308WP	0.8	●	●																
DCMX 070204R-WP	0.4	●																	
070204L-WP	0.4	●																	
DCMX 11T304R-WP	0.4	●																	
11T304L-WP	0.4	●																	
DCMT 070202PP	0.2	●	●						●										
070204PP	0.4	●	●						●										
DCMT 11T302PP	0.2	●	●						●										
11T304PP	0.4	●	●						●										
11T308PP	0.8	●	●						●										
DCMT 070202GP	0.2	●							●	●		●							
070204GP	0.4	●							●	●		●							
DCMT 11T304GP	0.4	●							●	●		●							
11T308GP	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 (ap indicates radius)

1



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

A Insert Grades | B Turning Indexable Inserts | C CBN & PCD Tools | D External | E Small Parts Machining | F Boring | G Grooving | H Cut-off | J Threading | K Drilling | L Solid Tools | M Milling | N Tools for Turning Mill | P Spare Parts | R Technical Information | T Index

Turning Indexable Inserts

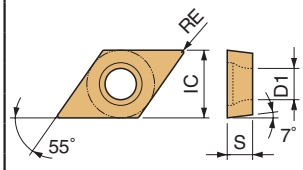
How to read pages of "Turning Inserts" See Page B15

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	DCMT 070202GK	0.2	●	●	□		●	●	□	□			□	●	●	●	●		●	●		●	●				●	●		●							●	●		●	●					Ref. to the table above	B63 1
	070204GK	0.4	●	●	□		●	●	□	□			□	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●							●	●		●	●						
	070208GK	0.8	●	●			●	●	□	□			□	●	●	●	●		●	●		●	●	●	●		●	●	□	●							●	●		●	●						
	DCMT 11T302GK	0.2	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●				●			●							●	●		●	●						
	11T304GK	0.4	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●	●	●	●	●			●							●	●		●	●						
	11T308GK	0.8	●	●	□		●	●	□	□			●	●	●	●	●		●	●	●	●	●	●	●	●		●		●							●	●		●	●						
Finishing - Medium	DCMT 070202HQ	0.2	●	●	□	●	●	●	□	□		□	●	●	●	●	●		●	●		●	●							●							●	●		●							
	070204HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●							●	●		●	●						
	070208HQ	0.8	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●							●	●		●	●						
	DCMT 11T302HQ	0.2	●	●	□	●	●	●	□	□		○	●	●	●	●	●		●	●	●	●	●							●							●	●		●	●						
	11T304HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●							●	●		●	●						
	11T308HQ	0.8	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●							●	●		●	●						
Medium	DCGT 070201	0.1	●	●		●	●	●		□		○																									●									
	070202	0.2	●	●	□	●	●	●	□	□		○																									●									
	070204	0.4	●	●	□	●	●	●	□	□		○																									●									
	DCGT 11T301	0.1	●	●	□	●	●	●	□	□		○																									●									
	11T302	0.2	●	●	□	●	●	●	□	□		○																									●									
	11T304	0.4	●	●	□	●	●	●	□	□		○																									●									
	DCMT 11T308	0.8	●	●		●	●	●		□	●	□						●						●	●	●	●	●	□								●		●							
	DCGT 0702005M	<0.05																																						●						
	070201M	<0.1																																						●						
	070202M	<0.2																																						●						
	070204M	<0.4																																						●						
	DCGT 11T3005M	<0.05																																						●						
	11T301M	<0.1																																						●						
	11T302M	<0.2																																						●						
	11T304M	<0.4																																						●						
Medium	DCGT 0702005MF	<0.05																												●	●					●									
	070201MF	<0.1																												●	●					●			●	●					
	070202MF	<0.2																												●	●					●			●	●					
	070204MF	<0.4																												●	●					●			●	●					
	DCGT 11T3005MF	<0.05																												●	●					●									
	11T301MF	<0.1																												●	●					●			●	●					
	11T302MF	<0.2																												●	●					●			●	●					
	11T304MF	<0.4																												●	●					●			●	●					

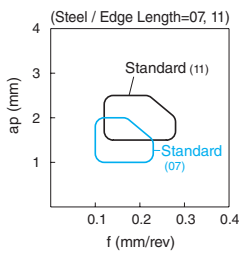
Sharp Edge

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

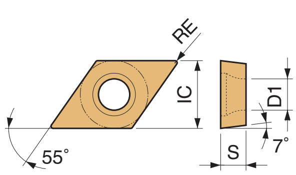
How to read pages of "Turning Inserts" ➡ See Page **B15**

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	**E24~E27,E38,F45~F47**
DC..11 type	**E20,E24~E27,E38,F45~F47,F67**

(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



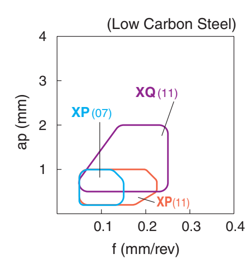
ISO	Material	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05
P	Free-cutting steel																																											
P	Carbon Steel / Alloy Steel	●	◕			●	◕	○	◔			○	●	◕	◔	✤			◔										◕								◔		◔					
M	Stainless Steel																				●	◕							◔							◕	◔		◔	◔				
K	Gray Cast Iron																																											
K	Nodular Cast Iron																																											
N	Non-ferrous Metals																																											
S	Heat-resistant Alloys																				○	◔											●	◕	✤	◕				◔				
S	Titanium Alloys																																			◕								◕
H	Hard Materials																																											

Insert	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Dimension (mm)			Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide			
Low Carbon Steel  Finishing	DCMT 070204XP	0.4	●	●			●	●	□	□		□	□	●	●	●	□		●	●										●							●	●		●						Ref. to the table above	1
	DCMT 11T302XP	0.2	●	●			●	●	□	□		□	□	●	●	●	●		●	●										●							●	●		●							
	11T304XP	0.4	●	●			●	●	□	□		○	●	●	●	●	●		●	●										●							●	●		●							
	11T308XP	0.8	●	●			●	●	□	□		○	●	●	●	●	●		●	●										●							●	●		●							
Low Carbon Steel  Finishing - Medium	DCMT 11T304XQ	0.4	●	●			●	●	□	□		○	●	●	●	●	●		●	●																											
	11T308XQ	0.8	●	●			●	●	□	□		○	●	●	●	●	●		●	●																											
Stainless Steel / Heat-Resistant Alloys  Finishing - Medium	DCMT 070202MQ	0.2																				●	●											●	●	●	●				●				●		2
	070204MQ	0.4																				●	●											●	●	●	●				●				●		
	DCMT 11T302MQ	0.2																				●	●														●				●						
	11T304MQ	0.4																				●	●											●	●	●	●				●				●		
	11T308MQ	0.8																																●	●	●	●								●		

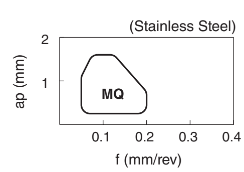
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

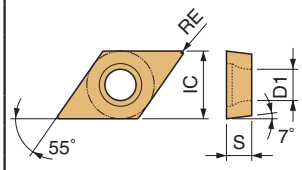
A Insert Grades
B Turning Indexable Inserts
C CBN & PCD Tools
D External
E Small Parts Machining
F Boring
G Grooving
H Cut-off
J Threading
K Drilling
L Solid Tools
M Milling
N Tools for Turning Mill
P Spare Parts
R Technical Information
T Index

(mm)

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



	Free-cutting steel	Carbon Steel / Alloy Steel	Stainless Steel	Gray Cast Iron	Nodular Cast Iron	Non-ferrous Metals	Heat-resistant Alloys	Titanium Alloys	Hard Materials
P		● ●			● ●				
M						○ ●		○ ○ ○	
K									
N								● ●	
S							● ●		
H									

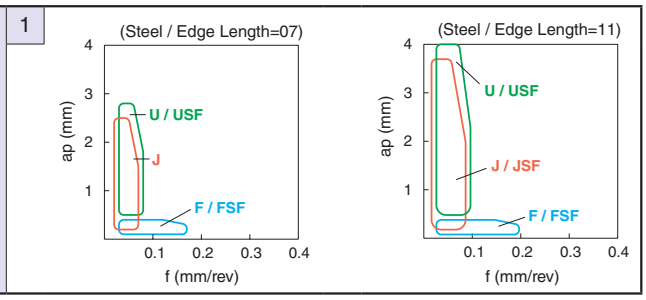
Insert	Description	Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																		MEGACOAT (PVD Coated Carbide)							PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Left-hand		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Finishing	Super Fine																																												
		DCET 0702003R-FSF	0.03																																			●								
		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	0.03																																			●								
		11T3003L-FSF	0.03																																			●								
		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	<0.05																												●									●						
		0702005ML-FSF	<0.05																												●									●						
		070201MR-FSF	<0.1																												●									●						
		070201ML-FSF	<0.1																												●									●						
		070202MR-FSF	<0.2																												●									●						
		070202ML-FSF	<0.2																												●									●						
		070204MR-FSF	<0.4																												●									●						
		070204ML-FSF	<0.4																												●									●						
		DCET 11T3005MR-FSF	<0.05																												●									●						
		11T3005ML-FSF	<0.05																												●									●						
		11T301MR-FSF	<0.1																												●									●						
		11T301ML-FSF	<0.1																												●									●						
		11T302MR-FSF	<0.2																												●									●						
		11T302ML-FSF	<0.2																												●									●						
		11T304MR-FSF	<0.4																												●									●						
		11T304ML-FSF	<0.4																												●									●						
Finishing	Sharp Edge / Precision																																												Ref. to the table above	1
		DCET 0702005MR-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	<0.05																												●							●					●	●		
		11T301MR-F	<0.1	●	●			●	●																						●							●					●	●		
		11T301ML-F	<0.1	●	●			●	●																						●							●					●	●		
		11T302MR-F	<0.2	●	●			●	●																						●							●					●	●		
		11T302ML-F	<0.2	●	●			●	●																						●							●					●	●		
		11T304MR-F	<0.4	●	●			●	●																						●							●					●	●		
		11T304ML-F	<0.4	●	●			●	●																						●							●					●	●		
Finishing	Sharp Edge																																													

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item

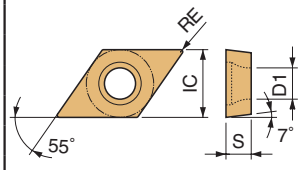
How to read pages of "Turning Inserts" See Page B15

(mm)

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



P	Free-cutting steel
	Carbon Steel / Alloy Steel
M	Stainless Steel
K	Gray Cast Iron
	Nodular Cast Iron
N	Non-ferrous Metals
S	Heat-resistant Alloys
	Titanium Alloys
H	Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	DCGT 0702003R-F	0.03																																													
	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	0.03																																													
	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	<0.05																																													
	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	<0.05																																												
	11T3005ML-F	<0.05																																													
	11T301MR-F	<0.1																																													
	11T301ML-F	<0.1																																													
	11T302MR-F	<0.2																																													
	11T302ML-F	<0.2																																													
	11T304MR-F	<0.4																																													
	11T304ML-F	<0.4																																													
Sharp Edge																																															

Ref. to the table above

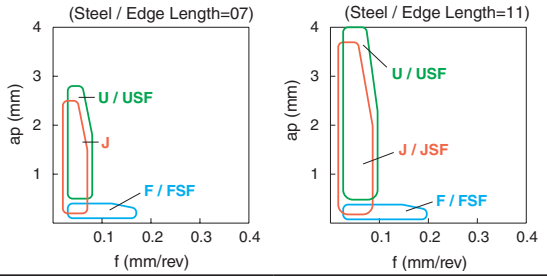
1

· 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

ap indicates radius

1



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

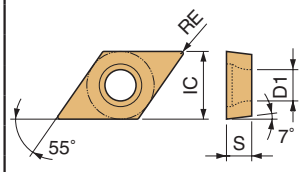
How to read pages of "Turning Inserts" See Page B15

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																MEGACOAT (PVD Coated Carbide)							PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN 610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Low Feed, Super Fine	DCET 0702003FR-USF	0.03				●																														●									
	0702003FL-USF	0.03				●																														●									
	070201FR-USF	0.1																																		●									
	070201FL-USF	0.1																																		●									
	070202FR-USF	0.2				●																														●									
	070202FL-USF	0.2				●																														●									
	DCET 11T3003FR-USF	0.03																																		●									
	11T3003FL-USF	0.03																																		●									
	11T301FR-USF	0.1				●																														●									
	11T301FL-USF	0.1				●																														●									
	11T302FR-USF	0.2				●																														●									
	11T302FL-USF	0.2				●																														●									
	DCET 0702005MFR-USF	<0.05																												●									●						
	070201MFR-USF	<0.1																												●									●						
	070201MFL-USF	<0.1																												●									●						
	070202MFR-USF	<0.2																												●									●						
	070202MFL-USF	<0.2																												●									●						
	DCET 11T3005MFR-USF	<0.05																												●									●						
	11T3005MFL-USF	<0.05																												●									●						
	11T301MFR-USF	<0.1																												●									●						
	11T301MFL-USF	<0.1																												●									●						
	11T302MFR-USF	<0.2																												●									●						
Sharp Edge / Precision	11T302MFL-USF	<0.2																												●									●						
Low Feed	DCET 0702005MFR-U	<0.05																											●							●					●	●			
	070201MFR-U	<0.1	●				●																						●							●					●	●			
	070201MFL-U	<0.1	●				●																						●							●					●	●			
	070202MFR-U	<0.2	●	●			●	●																					●							●					●	●			
	070202MFL-U	<0.2	●	●			●	●																					●							●					●	●			
	DCET 11T3005MFR-U	<0.05																											●							●					●	●			
	11T301MFR-U	<0.1	●				●																						●							●					●	●			
	11T301MFL-U	<0.1	●				●																						●							●					●	●			
	11T302MFR-U	<0.2	●	●			●	●																					●							●					●	●			
	11T302MFL-U	<0.2	●	●			●	●																					●							●					●	●			
	11T304MFR-U	<0.4																											●							●					●	●			
Low Feed	DCGT 0702003FR-U	0.03																																		●							●		
	0702003FL-U	0.03																																		●							●		
	070201FR-U	0.1			□	●																														●							●		
	070201FL-U	0.1				●																														●							●		
	070202FR-U	0.2			□	●				□																										●									
	070202FL-U	0.2			□	●				□																										●									
Sharp Edge	DCGT 11T3003FR-U	0.03				●																														●							●		
	11T3003FL-U	0.03				●																														●							●		
	11T301FR-U	0.1			□	●																														●							●		
	11T301FL-U	0.1			□	●																														●							●		
	11T302FR-U	0.2			□	●				□		○																								●							●		
	11T302FL-U	0.2			□	●				□																										●							●		

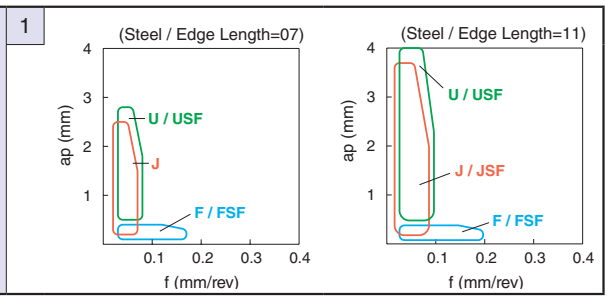
Ref. to the table above

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

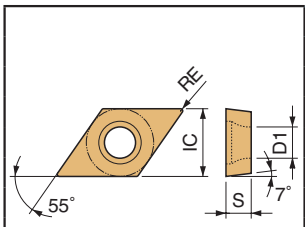
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

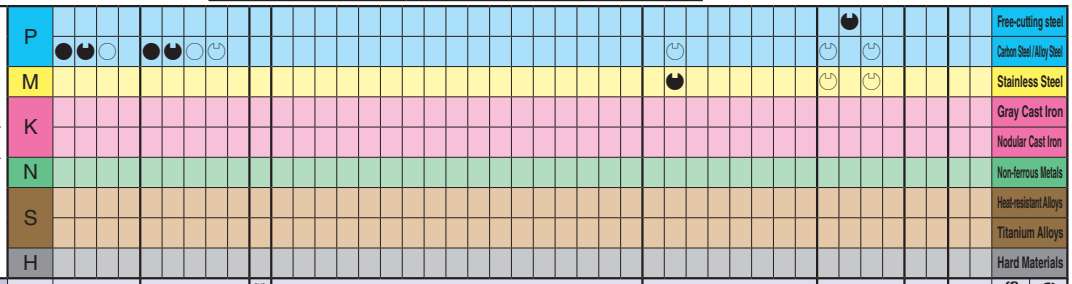
(mm)

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4





Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CVD Coated Carbide CA515	CVD Coated Carbide CA025P	CVD Coated Carbide CA525	CVD Coated Carbide CA530	CVD Coated Carbide CA5505	CVD Coated Carbide CA5515	CVD Coated Carbide CA5525	CVD Coated Carbide CA5535	CVD Coated Carbide CA6515	CVD Coated Carbide CA6525	CVD Coated Carbide CA310	CVD Coated Carbide CA315	CVD Coated Carbide CA320	CVD Coated Carbide CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4120	MEGACOAT (PVD Coated Carbide) PR1425	MEGACOAT (PVD Coated Carbide) PR1225	MEGACOAT (PVD Coated Carbide) PR005S	MEGACOAT (PVD Coated Carbide) PR015S	MEGACOAT (PVD Coated Carbide) PR1305	MEGACOAT (PVD Coated Carbide) PR1310	MEGACOAT (PVD Coated Carbide) PR1325	MEGACOAT (PVD Coated Carbide) PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed	DCGT 0702003MFR-U	<0.03																																										
	0702003MFL-U	<0.03																																											
	0702005MFR-U	<0.05																													●													
	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																													●							●					
Sharp Edge	DCGT 11T3005MFR-U	<0.05																													●				●			●					
	11T3005MFL-U	<0.05																													●				●			●					
	11T301MFR-U	<0.1																													●				●			●					
	11T301MFL-U	<0.1																													●				●			●					
	11T302MFR-U	<0.2																													●				●			●					
	11T302MFL-U	<0.2																													●				●			●					
	11T304MFR-U	<0.4																													●				●			●					
	11T304MFL-U	<0.4																													●				●			●					
Low Feed	DCGT 070201ER-U	0.1	●		□		●																												●								1
	070201EL-U	0.1	●				●																												●								
	070202ER-U	0.2	●	●	□	●	●	●		□																									●								
	070202EL-U	0.2	●	●	□	●	●	●		□																									●								
	070204ER-U	0.4	●	●	□	●	●	●																											●								
	070204EL-U	0.4	●	●	□	●	●	●																											●								
	DCGT 11T301ER-U	0.1	●	●	□	●	●	●																											●								
	11T301EL-U	0.1	●		□		●																												●								
	11T302ER-U	0.2	●	●	□	●	●	●	□	□		□																							●								
	11T302EL-U	0.2	●	●	□	●	●	●	□	□		□																							●								
	11T304ER-U	0.4	●	●	□	●	●	●	□	□		□																							●								
	11T304EL-U	0.4	●	●	□	●	●	●	□	□		□																							●								
	DCGT 070201MER-U	<0.1																																										
	070202MER-U	<0.2																																										
	070202MEL-U	<0.2																																										
	070204MER-U	<0.4																																										
	DCGT 11T301MER-U	<0.1																																										
	11T302MER-U	<0.2																																										
	11T302MEL-U	<0.2																																										
	11T304MER-U	<0.4																																										
With Honing	11T304MEL-U	<0.4																																										

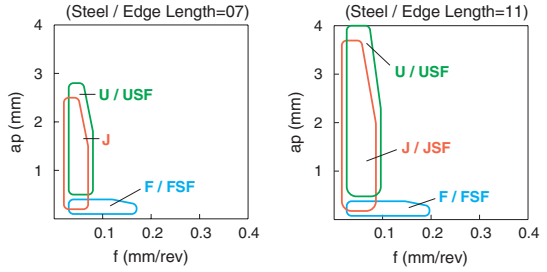
Ref. to the table above

· 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

ap indicates radius

1



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

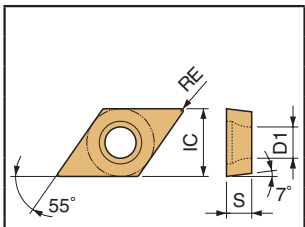
How to read pages of "Turning Inserts" See Page B15

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



	Free-cutting steel	Carbon Steel / Alloy Steel	Stainless Steel	Gray Cast Iron	Nodular Cast Iron	Non-ferrous Metals	Heat-resistant Alloys	Titanium Alloys	Hard Materials
P		●	○		●				
M							○	●	
K									
N									
S							●	●	
H									

Insert	Description	Dimension (mm)	Cermet				MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																							MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Left-hand		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Low Feed / Super Fine	DCET 11T3003FR-JSF	0.03																																			●									
	DCET 11T3003FL-JSF	0.03																																			●									
	11T301FR-JSF	0.1																																			●									
	11T301FL-JSF	0.1																																			●									
	11T302FR-JSF	0.2																																			●									
	11T302FL-JSF	0.2																																			●									
	DCET 11T3005MFR-JSF	<0.05																												●									●								
	11T3005MFL-JSF	<0.05																												●									●								
	11T301MFR-JSF	<0.1																												●									●								
	11T301MFL-JSF	<0.1																												●																	
	11T302MFR-JSF	<0.2																												●									●								
	11T302MFL-JSF	<0.2																												●									●								
Low Feed / Sharp Edge	DCET 0702005MFR-J	<0.05																												●	●					●										
	070201MFR-J	<0.1																												●	●					●										
	070201MFL-J	<0.1																												●						●										
	070202MFR-J	<0.2																												●	●					●										
	070202MFL-J	<0.2																												●	●					●										
	DCET 11T3005MFR-J	<0.05																												●						●										
	11T301MFR-J	<0.1	●				●																							●						●										
	11T301MFL-J	<0.1	●				●																							●						●										
	11T302MFR-J	<0.2	●				●																							●						●										
	11T302MFL-J	<0.2	●				●																							●						●										
	11T304MFR-J	<0.4																												●						●										
Low Feed / Sharp Edge	DCGT 11T3003FR-J	0.03																																			●									
	11T301FR-J	0.1			□	●																															●							●		
	11T301FL-J	0.1			□																																●							●		
	11T302FR-J	0.2			□	●																															●							●		
	11T302FL-J	0.2			□	●																															●							●		
	DCGT 11T3005MFR-J	<0.05																												●									●								
	11T3005MFL-J	<0.05																												●																	
	11T301MFR-J	<0.1																												●									●	●							
	11T301MFL-J	<0.1																												●																	
	11T302MFR-J	<0.2																												●									●	●							
	11T302MFL-J	<0.2																												●										●							
	11T304MFR-J	<0.4																												●									●	●							
	11T304MFL-J	<0.4																												●										●							

Ref. to the table above

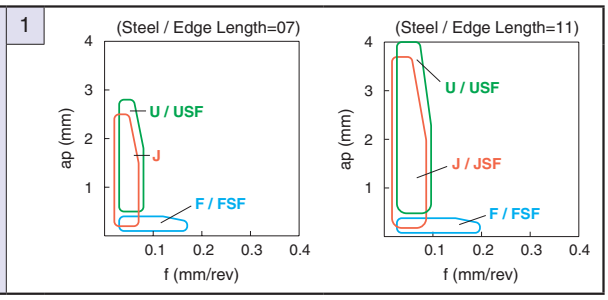
1

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

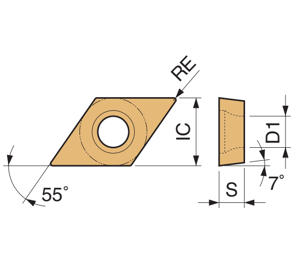
How to read pages of "Turning Inserts" ➡ See Page B15

55° Rhombic / Positive with Hole

Insert Description	See Page for Applicable Toolholders
DC..07 type	E24~E27,E38,F45~F47
DC..11 type	E20,E24~E27,E38,F45~F47,F67

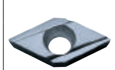
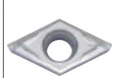
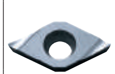
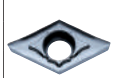
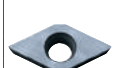
(mm)

Description	IC	S	D1
DC_0702_	6.35	2.38	2.8
DC_11T3_	9.525	3.97	4.4



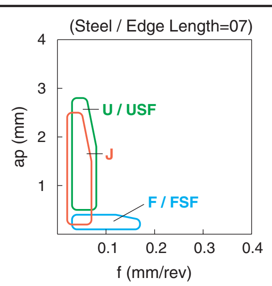
Grade groups: Cermet (TN610, TN620, TN6010, TN60); MEGACOAT Cermet (PV710, PV720, PV7010, PV7025, PV7005); PVD Coated Cermet (PV90); CVD Coated Carbide (CA510 – CA4120); MEGACOAT (PVD Coated Carbide) (PR1425 – PR1535); PVD Coated Carbide (PR930, PR1005, PR1025, PR1125); DLC (PDL010, PDL025); Carbide (KW10, SW05)

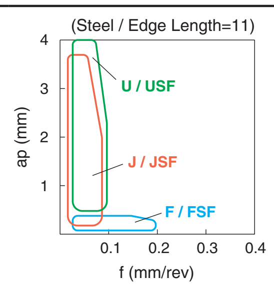
Work material	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05
P Free-cutting steel																																											
P Carbon Steel / Alloy Steel	●	◐	○		●	◐																														◌		◐					
M Stainless Steel																																				◌		◐					
K Gray Cast Iron																																										◌	
K Nodular Cast Iron																																											
N Non-ferrous Metals																																								●	◐	◌	
S Heat-resistant Alloys																																											
S Titanium Alloys																																										◌	
H Hard Materials																																											

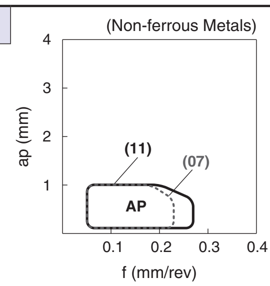
Insert (Handed Insert shows Left-hand)	Description	RE (mm)	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed  With Honing	DCGT 11T3003ER-J	0.03																																				●						●		Ref. to the table above	1
	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	<0.05																																						●							
	11T301MER-J	<0.1																																						●							
	11T302MER-J	<0.2																																						●							
	11T304MER-J	<0.4																																						●							
	11T304MEL-J	<0.4																																						●							
Non-ferrous Metals NEW  Finishing / Sharp Edge	DCGT 070202AP	0.2																																								●		●			2
	070204AP	0.4																																								●		●			
	DCGT 11T302AP	0.2																																								●		●			
	11T304AP	0.4																																								●		●			
	11T308AP	0.8																																								●		●			
Non-ferrous Metals  Finishing - Medium / Sharp Edge	DCGT 11T302R-A3	0.2																																								●	●	●			3
	11T302L-A3	0.2																																								●	●	●			
	11T304R-A3	0.4																																								●	●	●			
	11T304L-A3	0.4																																								●	●	●			
	11T308R-A3	0.8																																								●	●				
	11T308L-A3	0.8																																								●	●				
Non-ferrous Metals  Finishing - Medium / Sharp Edge	DCGT 11T304AH	0.4																																								●	●	●			
	11T308AH	0.8																																								●	●	●			
Cast Iron  Without Chipbreaker	DCGW 070201	0.1																																										●			-
	070202	0.2																																										●			
	DCGW 11T301	0.1																																										●			
	11T302	0.2																																										●			
	11T304	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
ap indicates radius

1




2


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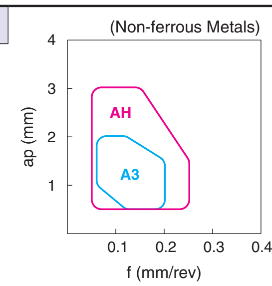


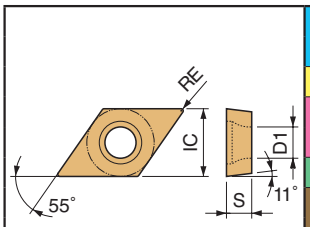
Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

55° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
DP_0702_	6.35	2.38	2.8
DP_11T3_	9.525	3.97	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

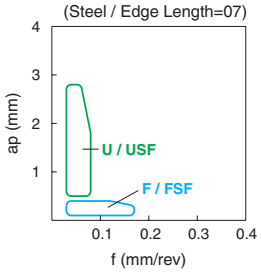
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CVD Coated Carbide CA515	CVD Coated Carbide CA025P	CVD Coated Carbide CA525	CVD Coated Carbide CA530	CVD Coated Carbide CA5505	CVD Coated Carbide CA5515	CVD Coated Carbide CA5525	CVD Coated Carbide CA5535	CVD Coated Carbide CA6515	CVD Coated Carbide CA6525	CVD Coated Carbide CA310	CVD Coated Carbide CA315	CVD Coated Carbide CA320	CVD Coated Carbide CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4120	MEGACOAT (PVD Coated Carbide) PR1425	MEGACOAT (PVD Coated Carbide) PR1225	MEGACOAT (PVD Coated Carbide) PR005S	MEGACOAT (PVD Coated Carbide) PR015S	MEGACOAT (PVD Coated Carbide) PR1305	MEGACOAT (PVD Coated Carbide) PR1310	MEGACOAT (PVD Coated Carbide) PR1325	MEGACOAT (PVD Coated Carbide) PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing / Super Fine / Sharp Edge / Precision	DPET 0702003R-FSF	0.03																																		●									
	070201R-FSF	0.1																																		●									
	070202R-FSF	0.2																																		●									
	070202L-FSF	0.2																																		●									
	DPET 11T3003R-FSF	0.03																																		●									
	11T301R-FSF	0.1																																		●									
	11T302R-FSF	0.2				●																														●									
	11T302L-FSF	0.2				●																														●									
	DPET 070202MR-FSF	<0.2																																				●								
	070202ML-FSF	<0.2																																				●								
	DPET 11T301MR-FSF	<0.1																																				●								
	11T302MR-FSF	<0.2																																				●								
Low Feed / Super Fine / Sharp Edge / Precision	DPET 0702003FR-USF	0.03																																		●							E28	1
	070201FR-USF	0.1																																		●								
	070201FL-USF	0.1																																		●								
	070202FR-USF	0.2																																		●								
	070202FL-USF	0.2																																		●								
	DPET 11T3003FR-USF	0.03																																		●								
	11T301FR-USF	0.1																																		●								
	11T301FL-USF	0.1																																		●								
	11T302FR-USF	0.2				●																														●								
	11T302FL-USF	0.2				●																														●								
	DPET 0702005MFR-USF	<0.05																																				●								
	070201MFR-USF	<0.1																																				●								
	070202MFR-USF	<0.2																																				●								
	DPET 11T3005MFR-USF	<0.05																																				●								
	11T301MFR-USF	<0.1																																				●								
	11T302MFR-USF	<0.2																																				●								

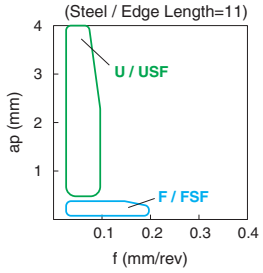
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable Chipbreaker Range

ap indicates radius

1





Inserts are sold in 10 piece boxes

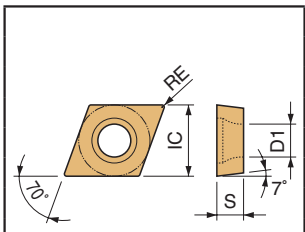
● : Std. Item

How to read pages of "Turning Inserts" See Page B15

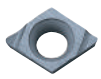
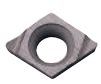
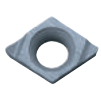
(mm)

70° Rhombic / Positive with Hole

Description	IC	S	D1
JC_0301_	3.5	1.4	1.9



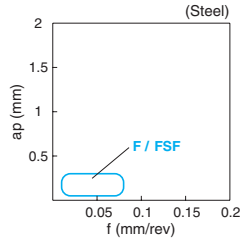
P: Free-cutting steel; Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron; Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys; Titanium Alloys
H: Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing Super Fine  Sharp Edge / Precision	JCET 030101R-FSF	0.1				●																															●									
	030101L-FSF	0.1				●																															●									
	030102R-FSF	0.2				●																															●									
	030102L-FSF	0.2				●																															●									
	030104L-FSF	0.4				●																															●									
	JCET 030101MR-FSF	<0.1																																					●								
	030101ML-FSF	<0.1																																					●								
	030102MR-FSF	<0.2																																					□								
	030102ML-FSF	<0.2																																					□								
Finishing Sharp Edge 	JCET 030102MR-F	<0.2																																	●												F48	1
	030102ML-F	<0.2																																	●													
	030104MR-F	<0.4																																	●													
	030104ML-F	<0.4																																	●													
Finishing 	JCGT 030101R-F	0.1																																					●								
	030101L-F	0.1				●																															●							●		
	030102R-F	0.2				●																															●							●		
	030102L-F	0.2				●																															●							●		
	030104R-F	0.4				●																															●									
	030104L-F	0.4				●																															●									
Sharp Edge	JCGT 030102MR-F	<0.2																																					□								
	030102ML-F	<0.2																																					●								
	030104ML-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 — ap indicates radius

1



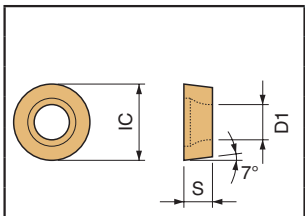
● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Round / Positive with Hole

(mm)

Description	IC	S	D1
RC_1003_	10.0	3.18	3.6
RC_1204_	12.0	4.76	4.2

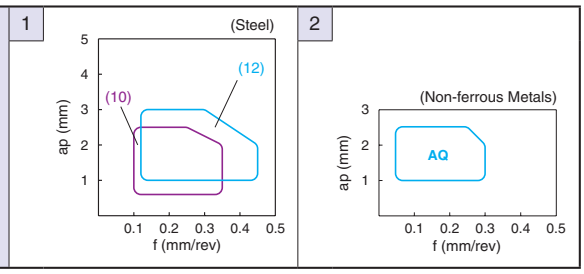


P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	*	RCMX 1003M0	-	●		●		●						●	●	●	●	●		●	●			●																						D21	1
		RCMX 1204M0	-	●		●		●						●	●	●	●	●		●	●			●	●	●	●	●	●	□																	
Non-ferrous Metals	Finishing - Medium	RCGX 1003M0-AQ	-																																								●			2

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

Applicable Chipbreaker Range
ap indicates radius



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

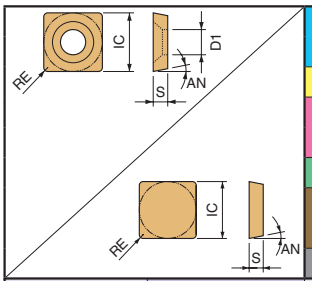
90° Square / Positive with Hole
90° Square / Positive without Hole

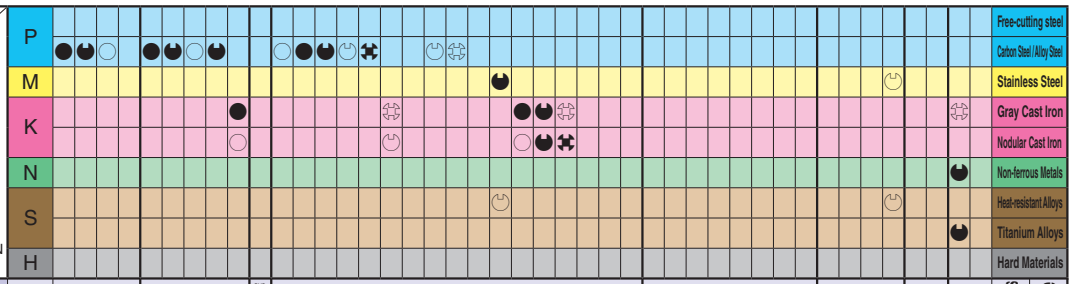
(mm)

Description	IC	S	D1	AN
SC_09T3_	9.525	3.97	4.4	7°
SP_0903_	9.525	3.18	4.5	11°

(mm)

Description	IC	S	D1	AN
SP_0903_	9.525	3.18	-	11°
SP_1203_	12.7	3.18	-	11°
SP_1204_	12.7	4.76	-	11°



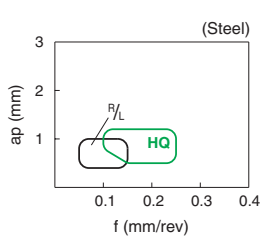


Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium		SCMT 09T304HQ	0.4	●	●	□	●	●	●	□			●	●	●	●	●		●	●	●																									-	1
		09T308HQ	0.8	●	●	□	●	●	□				●	●	●	●	●		●	●	●																										
Finishing		SPGH 090304L	0.4				●																																						F62	
Medium		SPMR 090304G	0.4		●		●		●	□		○																																		
		090308G	0.8		●		●		●	□		□																																		
		SPMR 120304G	0.4		●		●		●	□		□																																		
		120308G	0.8		●		●		●	□		□																																		
Medium		SPMR 090304	0.4										□	●	●	●	□		●	●		●																								
		090308	0.8										□	●	●	●	□		●	●		●																									2	
		SPMR 120304	0.4										□	●	●	●	●		●	●		●																								
		120308	0.8										□	●	●	●	●		●	●		●																								
Finishing		SPGR 090304R	0.4	●	●	□	●	●	●			□																																		
		090304L	0.4	●	●	□	●	●	●																																					
		090308R	0.8	●	●	□	●	●	●																																					
		090308L	0.8	●	●		●	●	●																																					E44 F62	
		SPGR 120304R	0.4	●	●	□	●	●	●																																					
		120304L	0.4	●	●	□	●	●	●																																					
		120308R	0.8	●	●	□	●	●	●		●																																			
		120308L	0.8	●	●	□	●	●	●		●																																			
Cast Iron		SPGN 090304	0.4																																									●		-	
		090308	0.8																																									●			
		SPGN 120304	0.4								□																																	●			
		120308	0.8								●																																	●			
		SPMN 120304	0.4															●						●	●	●		●	□																	
		120308	0.8	●	●	□	●	●	●									●						●	●	●	□	●	□																	
		120312	1.2	●	●		●	●	●		●																																			
		SPMN 120408	0.8																						●	●		●	□																	
		120412	1.2																						●	●			□																	
	Without Chipbreaker																																													

Applicable Chipbreaker Range

ap indicates radius

1



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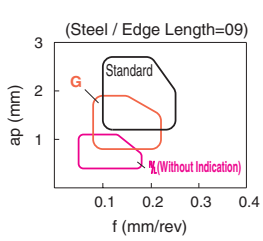
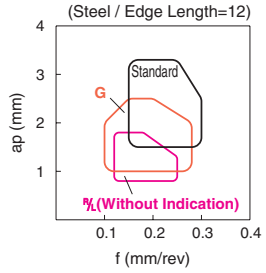




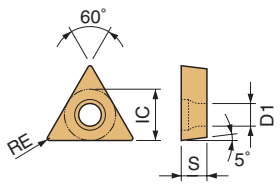
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TB_0601_	3.97	1.59	2.3



P: Free-cutting steel; Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron; Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys; Titanium Alloys
H: Hard Materials

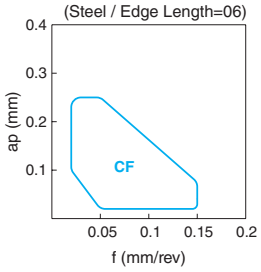
Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	Sharp Edge	TBGT 060102CF	0.2																																			●									
		TBGT 060101M-CF	<0.1																																						●								1
		060102M-CF	<0.2																																					●	●							
Minute ap	Sharp Edge / Polished	TBGT 060101MP-CF	<0.1																													●	●				●										
		060102MP-CF	<0.2																													●	●				●				●						
Finishing	NEW Sharp Edge / Polished	TBGT 060101MFP-PF	<0.1																													●					●										2
		060102MFP-PF	<0.2																													●					●										
		060104MFP-PF	<0.4																													●					●										
Finishing		TBMT 060102DP	0.2	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●																										
		060104DP	0.4	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●																										
Finishing		TBET 0601005MR	<0.05																													●					●									F20 F51 F53	
		0601005ML	<0.05																													●					●										
		060101MR	<0.1																													●					●										
		060101ML	<0.1																													●					●										
		060102MR	<0.2																													●					●										
		060102ML	<0.2																													●					●										
		060104MR	<0.4																													●					●										
		060104ML	<0.4																													●					●										
		TBGT 0601003L	0.03																																					●								3
		060101R	0.1																																					●					●			
		060101L	0.1				●																																	●					●			
		060102R	0.2	●	●	□	●	●	●																															●					●			
		060102L	0.2	●	●	□	●	●	●	□	□		□																											●					●			
		060104R	0.4	●	●	□	●	●	●																															●					●			
		060104L	0.4	●	●	□	●	●	●	□	□		□																											●					●			
		TBGT 0601005ML	<0.05																																						●								
		060101ML	<0.1																																						●								
		060102MR	<0.2																																						●								
		060102ML	<0.2																																						●	●							
		060104MR	<0.4																																						●	●							
		060104ML	<0.4																																						●	●							
Cast Iron	Without Chipbreaker	TBGW 060102	0.2				●																																					●			-
		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).

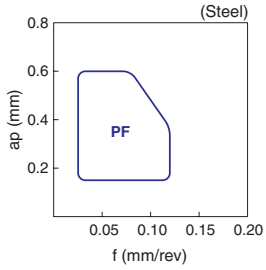
Applicable Chipbreaker Range

ap indicates radius

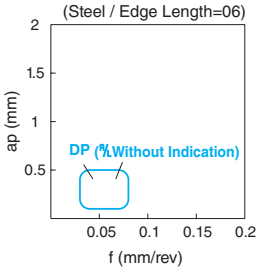
1 (Steel / Edge Length=06)



2 (Steel)



3 (Steel / Edge Length=06)



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

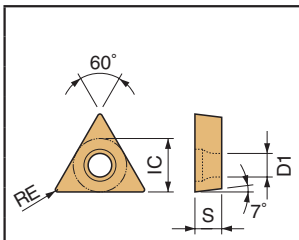
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TC_0802_	4.76	2.38	2.3
TC_0902_	5.56	2.38	2.5

(mm)

Description	IC	S	D1
TC_1102_	6.35	2.38	2.8
TC_1103_	6.35	3.18	2.8
TC_16T3_	9.525	3.97	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

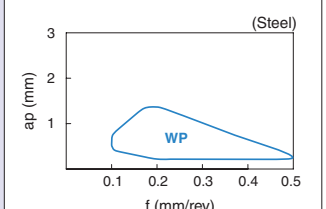
Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge NEW Finishing	TCMX 090204WP	0.4	●	●			●	●					●	●	●	●	●													●	●																1
	TCMX 110204WP	0.4	●	●			●	●					●	●	●	●	●													●	●																
Finishing - Medium	TCMT 090202HQ	0.2	●	●	□	●	●	●	□	□																																			F49	
	090204HQ	0.4	●	●	□	●	●	●	□	□																																			
	TCMT 110202HQ	0.2	●	●	□	●	●	●	□	□																																			
	110204HQ	0.4	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●	●			●	●	●		●																	
	110208HQ	0.8	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●	●			●	●	●		●																	
	TCMT 16T304HQ	0.4		●				●		□																																			-	
	16T308HQ	0.8		●				●		□														●	●	●		●																	
	16T312HQ	1.2																						●	●	●		●																	
Low Feed Super Fine	TCET 0802003FR-USF	0.03																																				●							2	
	0802003FL-USF	0.03																																				●								
	0802001FR-USF	0.1																																				●								
	0802002FR-USF	0.2																																				●								
	TCET 1103003FR-USF	0.03																																				●								
	1103003FL-USF	0.03																																				●								
	110301FR-USF	0.1				●																																●						E29	
	110301FL-USF	0.1																																				●								
	110302FR-USF	0.2				●																																●								
	110302FL-USF	0.2																																				●								
	TCET 1103005MFR-USF	<0.05																																						●						
	110301MFR-USF	<0.1																																						●						
Sharp Edge / Precision	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).

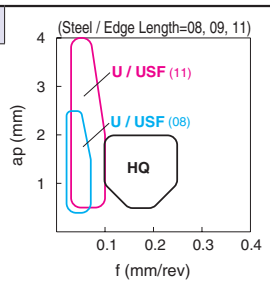
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

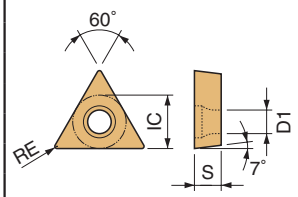
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TC_0802_	4.76	2.38	2.3
TC_1103_	6.35	3.18	2.8



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

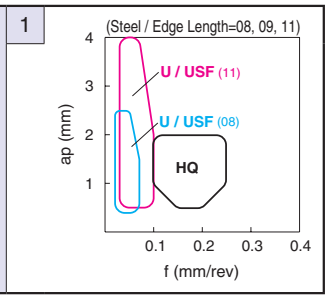
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed	TCGT 0802003FR-U	0.03				●																															●									
	080201FR-U	0.1				●																															●								□			
	080201FL-U	0.1				●																															●											
	080202FR-U	0.2				●																															●								●			
	080202FL-U	0.2				●																															●								●			
	TCGT 1103003FR-U	0.03																																			●								●			
	110301FR-U	0.1				●																															●								●			
	110301FL-U	0.1				●																															●								●			
	110302FR-U	0.2				●																															●								●			
	110302FL-U	0.2				●																															●								●			
	TCGT 080201MFR-U	<0.1																																	●													
	080202MFR-U	<0.2																																	●													
	080202MFL-U	<0.2																																	●													
	TCGT 1103005MFR-U	<0.05																																	●									●				
	1103005MFL-U	<0.05																																	●									●				
	110301MFR-U	<0.1																																	●									●				
	110301MFL-U	<0.1																																	●									●				
	110302MFR-U	<0.2																																	●									●			E29	1
	110302MFL-U	<0.2																																	●									●				
	110304MFR-U	<0.4																																	●									●				
	110304MFL-U	<0.4																																	●									●				
Sharp Edge																																															
Low Feed	TCGT 080202ER-U	0.2				●																																		●									
	080202EL-U	0.2				●																																		●									
	TCGT 110301ER-U	0.1				●																																										
	110302ER-U	0.2				●																																		●									
	110302EL-U	0.2				●																																		●									
	110304ER-U	0.4				●																																		●									
	110304EL-U	0.4				●																																		●									
	TCGT 080202MER-U	<0.2																																														
	TCGT 110302MER-U	<0.2																																														
	110302MEL-U	<0.2																																														
	110304MER-U	<0.4																																														
	110304MEL-U	<0.4																																														
With Honing																																															

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

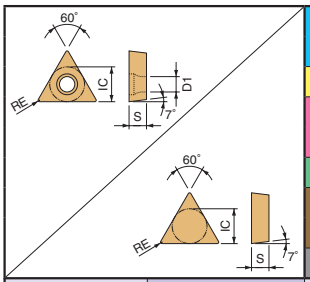
60° Triangle / Positive with Hole
60° Triangle / Positive without Hole

(mm)

Description	IC	S	D1
TCG_0601_	3.97	1.59	-
TC_0802_	4.76	2.38	2.3

(mm)

Description	IC	S	D1
TC_1103_	6.35	3.18	2.8



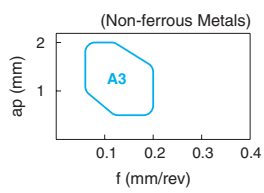
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals / Heat-resistant Alloys
S Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals	TCGT 110302R-A3	0.2																																							●	●	●			
	TCGT 110302L-A3	0.2																																							●	●	●			
	TCGT 110304R-A3	0.4																																							●	●	●			1
	TCGT 110304L-A3	0.4																																							●	●	●			
	TCGT 110308R-A3	0.8																																							●	●				
	TCGT 110308L-A3	0.8																																							●	●				
Finishing - Medium / Sharp Edge																																													
Cast Iron	TCGW 080201	0.1																																										●		E29	
	TCGW 080202	0.2																																									●			
	TCGW 110301	0.1																																									●		-	
	TCGW 110302	0.2																																										●			
	TCGW 110304	0.4																																										●			
Without Chipbreaker																																													
Finishing	TCGR 060102L-F	0.2				●																																							-	2
	TCGR 060104L-F	0.4				●																																								
Sharp Edge																																													
Cast Iron	TCGN 060102	0.2				●																																							-	-
	TCGN 060104	0.4				●																																								
Without Chipbreaker																																													

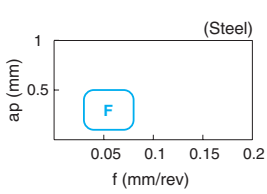
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item

Inserts are sold in 10 piece boxes

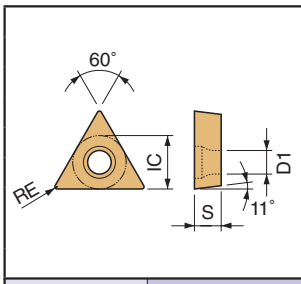
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TPMT0902_	5.56	2.38	2.8

(mm)

Description	IC	S	D1
TP_0902_	5.56	2.38	3.0
TP_1103_	6.35	3.18	3.3
TPMT1603_	9.525	3.18	4.4



		Dimension (mm)	Cermet			MEGACOAT Cermet				PVD Coated Cermet	CVD Coated Carbide																MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide			DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Insert	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Handed Insert shows Left-hand																																													
Minute ap	TPGT 080202CF	0.2																																			●									
	TPGT 090202CF	0.2																																			●									
	TPGT 080201M-CF	<0.1																																				●	●							
	080202M-CF	<0.2																																				●	●							
	TPGT 090201M-CF	<0.1																																				●	●							
Sharp Edge	090202M-CF	<0.2																																				●	●							
Minute ap	TPGT 080201MP-CF	<0.1																												●	●					●			●						
	080202MP-CF	<0.2																												●	●					●			●						
	TPGT 090201MP-CF	<0.1																												●	●					●			□						
Sharp Edge / Polished	090202MP-CF	<0.2																												●	●					●			●						
Finishing	TPGT 090201MFP-PF	<0.1																												●						●									
NEW	090202MFP-PF	<0.2																												●						●									
Sharp Edge / Polished	090204MFP-PF	<0.4																												●						●									
With Wiper Edge	TPMX 090202WP	0.2	●	●			●	●					●	●	●	●	●													●	●					●									
NEW	090204WP	0.4	●	●			●	●					●	●	●	●	●													●	●					●									
	090208WP	0.8	●	●			●	●					●	●	●	●	●													●	●					●									
	TPMX 110302WP	0.2	●	●			●	●					●	●	●	●	●													●	●					●									
	110304WP	0.4	●	●			●	●					●	●	●	●	●													●	●					●									
Finishing	110308WP	0.8	●	●			●	●					●	●	●	●	●													●	●					●									
With Wiper Edge	TPMX 110304R-WP	0.4		●				●																						●															
NEW	110304L-WP	0.4		●				●																						●															
Finishing	TPMT 090202PP	0.2	●	●	□		●	●	□	□			●	●	●	●	□													●	●					●									
	090204PP	0.4	●	●			●	●	□	□			●	●	●	●	●													●	●					●									
	TPMT 110302PP	0.2	●	●			●	●	□	□			●	●	●	●	●													●	●					●									
	110304PP	0.4	●	●	□		●	●	□	□			●	●	●	●	●													●	●					●									
	110308PP	0.8	●	●	□		●	●	□	□			●	●	●	●	●													●	●					●									

Ref. to the table below

1

· 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).

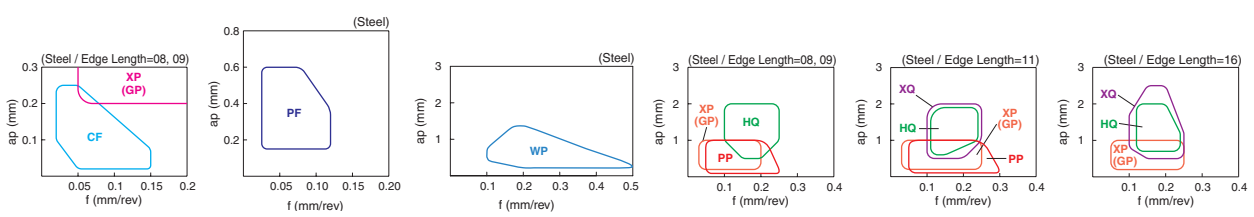
Insert Description	See Page for Applicable Toolholders
TP..0802 type	**E29,F51,F53**
TP..0902 type	**F20,F51,F53**

Insert Description	See Page for Applicable Toolholders
TP..1103 type	**E29,F51,F52**
TP..1603 type	**F51,F52**

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

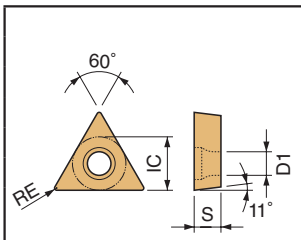
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TPMT0902_	5.56	2.38	2.8

(mm)

Description	IC	S	D1
TP_0902_	5.56	2.38	3.0
TP_1103_	6.35	3.18	3.3
TPMT1603_	9.525	3.18	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		TPMT 090202GP	0.2	●	●	□	●	●	●	□	□			□	□	●	●	●	□		●	●									●							●	●	●		●					
		090204GP	0.4	●	●	□	●	●	●	□	□		□	□	□	●	●	●	□		●	●									●							●	●	●		●					
		TPMT 110304GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●	□		●	●									●							●	●	●		●					
		110308GP	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	□	□		●	●									●							●	●	●		●					
		TPMT 160304GP	0.4	●	●	□	●	●	●	□	□		○	●	●	●	●	●			●										●							●	●			●					
Finishing - Medium		TPMT 090202HQ	0.2	●	●	□	●	●	●	□	□		□	●	●	●	●	●	□		●	●									●							●	●	●		●					
		090204HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●	□		●	●	●	●							●							●	●	●		●					
		TPMT 110302HQ	0.2	●	●	□	●	●	●	□	□		□	●	●	●	●	□	□		●	●									●							●	●	●		●					
		110304HQ	0.4	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●	□		●	●	●	●	●	●	●	●	●		●							●	●	●		●					
		110308HQ	0.8	●	●	□	●	●	●	□	□	●	○	●	●	●	●	●	□		●	●	●	●	●	●	●	●	●		●							●	●	●		●					
		TPMT 160302HQ	0.2	●	●	□	●	●	●				□	●	●	●	●	●	□		●	●	●	●	●	●	●		●		●							●	●	●		●					
		160304HQ	0.4	●	●	□	●	●	●	□	□		□	●	●	●	●	●	□		●	●	●	●	●	●	●		●		●							●	●	●		●					
		160308HQ	0.8	●	●	□	●	●	●	□	□		○	●	●	●	●	●	□		●	●	●	●	●	●	●		●		●							●	●	●		●					
Low Carbon Steel	Finishing	TPMT 090204XP	0.4	●	●			●	●	□	□		□	●	●	●	●	●	□		●	●									●							●	●	●		●					
		TPMT 110304XP	0.4	●	●	□		●	●	□	□		○	●	●	●	●	●	□		●	●									●							●	●	●		●					
		110308XP	0.8	●	●	□		●	●	□	□		○	●	●	●	●	●	□		●	●									●							●	●	●		●					
		TPMT 160304XP	0.4	●	●	□		●	●	□	□		□	□	●	●	●	●	□		●										●							●	●			●					
		160308XP	0.8	●	●			●	●	□	□		□	□	●	●	●	□	□		●	●									●							●	●			●					
Low Carbon Steel	Finishing - Medium	TPMT 110304XQ	0.4	●	●	□		●	●	□	□		○	●	●	●	●	●	□		●	●																									
		110308XQ	0.8	●	●	□		●	●	□	□		○	●	●	●	●	●	□		●	●																									
		TPMT 160304XQ	0.4	●	●			●	●	□	□		□	□	●	●	●	●	□		●	●																									
		160308XQ	0.8	●	●			●	●		□		○	□	●	●	●	●	□		●	●																									

Ref. to the table below **B80**

B80 1

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" ➡ See Page B15

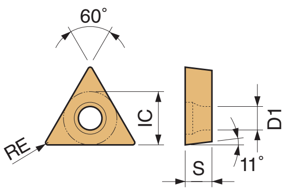
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TPMT0902_	5.56	2.38	2.8

(mm)

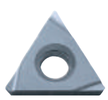
Description	IC	S	D1
TP_0902_	5.56	2.38	3.0
TP_1103_	6.35	3.18	3.3
TPMT1603_	9.525	3.18	4.4



Workpiece material		TN610	TN620	TN6010	PV710	PV720	PV7010	PV7025	PV7005	PR1425	PR1535	PR930	KW10
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 Alloys										◐		
S	Titanium Alloys										◐		○
H	Hard Materials												

Insert: Handed Insert shows Left-hand. Dimension (mm). Grade groups: Cermet (TN610, TN620, TN6010, TN60); MEGACOAT Cermet (PV710, PV720, PV7010, PV7025, PV7005); PVD Coated Cermet (PV90); CVD Coated Carbide (CA510 – CA4120); MEGACOAT (PVD Coated Carbide) (PR1425 – PR1535); PVD Coated Carbide (PR930 – PR1125); DLC (PDL010, PDL025); Carbide (KW10, SW05).

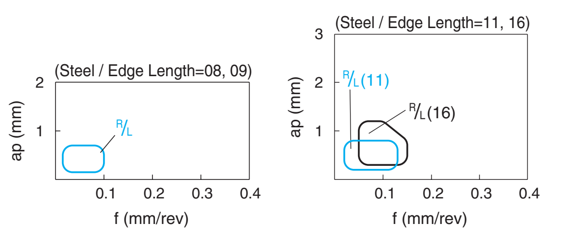
Finishing



Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
TPGH 080201R	0.1																												●							●									Ref. to the table below B80	
080201L	0.1				●																								●							●	●						●			
080202R	0.2		●		●		●		□	□																			●							●	●						●			
080202L	0.2	●	●	□	●	●	●	□	□	●	□																		●							●	●						●			
080204R	0.4		●		●		●		□	□																			●							●	●						●			
080204L	0.4	●	●	□	●	●	●	□	□	●	○																		●							●	●						●			
TPGH 090201R	0.1																												●							●	●						●			
090201L	0.1				●																								●							●	●						●			
090202R	0.2		●		●		●		□																				●							●	●						●			
090202L	0.2	●	●	□	●	●	●	□	□	●	□																		●							●	●						●			
090204R	0.4		●		●		●		□	●																			●							●	●						●			
090204L	0.4	●	●	□	●	●	●	□	□	●	○																		●							●	●						●			
TPGH 110202R	0.2																												●							●	●						●		F52	1
110202L	0.2	●	●	□	●	●	●																						●							●	●						●			
110204R	0.4				●																								●							●	●						●			
110204L	0.4	●	●	□	●	●	●			●	□																		●							●	●						●			
TPGH 110302R	0.2		●		●		●		□																				●							●	●						●		Ref. to the table below B80	
110302L	0.2	●	●	□	●	●	●	□	□	●	○																		●							●	●						●			
110304R	0.4		●		●		●		□	●																			●							●	●						●			
110304L	0.4	●	●	□	●	●	●	□	□	●	○																		●							●	●						●			
110308R	0.8	●	●	□	●	●	●																						●							●	●						●			
110308L	0.8	●	●	□	●	●	●		□		□																		●							●	●						●			
TPGH 160302R	0.2	●	●	□	●	●	●																						●							●	●						●			
160302L	0.2	●	●	□	●	●	●																						●							●	●						●			
160304R	0.4	●	●	□	●	●	●			●																			●							●	●						●			
160304L	0.4	●	●	□	●	●	●	□	□	●	□																		●							●	●						●			
160308R	0.8									●																			●							●										
160308L	0.8	●	●	□	●	●	●			●																			●							●	●						●			

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

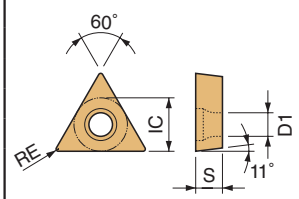
60° Triangle / Positive with Hole

(mm)

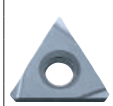
Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TP_0902_	5.56	2.38	3.0
TP_1102_	6.35	2.38	3.5

(mm)

Description	IC	S	D1
TP_1103_	6.35	3.18	3.3
TP_1603_	9.525	3.18	4.5
TP_1604_	9.525	4.76	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

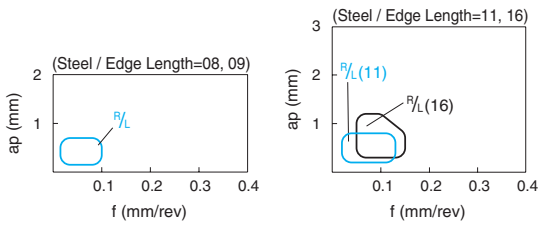
Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing 	TPGH 080201ML	<0.1																																						●							Ref. to the table below B80	
	080202MR	<0.2																																						●	●							
	080202ML	<0.2																																						●	●							
	080204MR	<0.4																																						●	●							
	080204ML	<0.4																																						●	●							
	TPGH 090201ML	<0.1																																							●							
	090202MR	<0.2																																						●	●							
	090202ML	<0.2																																						●	●							
	090204MR	<0.4																																						●	●							
	090204ML	<0.4																																						●	●							
	TPGH 110202ML	<0.2																																						●	●					F52	1	
	110204MR	<0.4																																							●							
	110204ML	<0.4																																						●	●							
	TPGH 110302MR	<0.2																																						●	●							
	110302ML	<0.2																																						●	●							
	110304MR	<0.4																																						●	●							
	110304ML	<0.4																																						●	●							
	110308ML	<0.8																																						●	●							
	TPGH 160302ML	<0.2																																							●					Ref. to the table below B80	
	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

ap indicates radius

1



● : Std. Item

Inserts are sold in 10 piece boxes

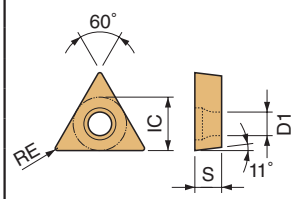
60° Triangle / Positive with Hole

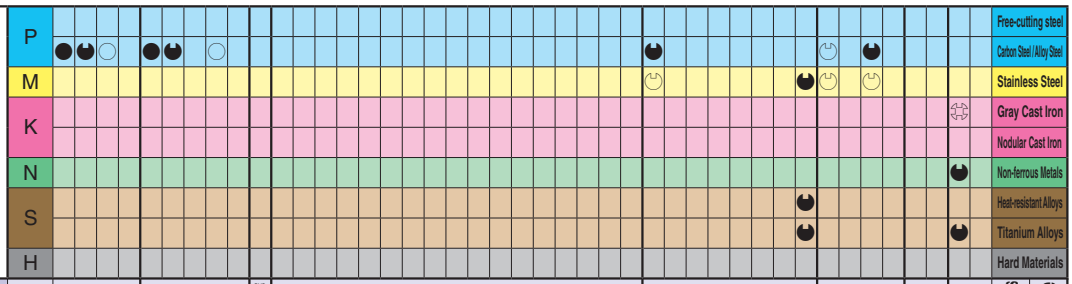
(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TP_0902_	5.56	2.38	3.0
TP_1102_	6.35	2.38	3.5

(mm)

Description	IC	S	D1
TP_1103_	6.35	3.18	3.3
TP_1603_	9.525	3.18	4.5
TP_1604_	9.525	4.76	4.4



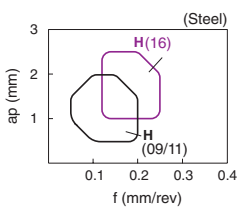


Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	TPGH 090201L-H	0.1								□																				●						●										Ref. to the table below B80	1
	090202L-H	0.2								□																				●						●											
	090204L-H	0.4								□																				●						●											
	TPGH 110302R-H	0.2				●																								●						●	●										
	110302L-H	0.2	●	●	□	●	●	●		□		□																		●						●	●							●			
	110304R-H	0.4		●		●		●		□																				●						●	●										
	110304L-H	0.4	●	●	□	●	●	●		□		□																		●						●	●							●			
	110308R-H	0.8				●																								●						●	●										
	110308L-H	0.8	●	●	□	●	●	●		□																				●						●	●							●			
	TPGH 160304R-H	0.4				●																								●						●	●										
	160304L-H	0.4	●	●	□	●	●	●		□		□																		●						●	●							●			
	160308R-H	0.8				□																								●						●	●										
	160308L-H	0.8				●																								●						●	●							●			
	TPGT 160402L-H	0.2	●	●	□	●	●	●																																						-	
	160404L-H	0.4	●	●	□	●	●	●																																							
	160408L-H	0.8				●																																									
	TPGH 110302ML-H	<0.2																																						●						Ref. to the table below B80	
	110304ML-H	<0.4																																						●							
	TPGH 160304ML-H	<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
ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

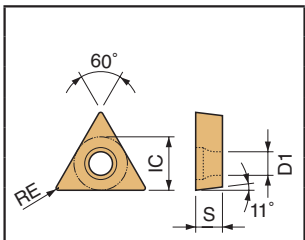
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TP_0902_	5.56	2.38	3.0
TP_1102_	6.35	2.38	3.5

(mm)

Description	IC	S	D1
TP_1103_	6.35	3.18	3.3
TP_1603_	9.525	3.18	4.5
TP_1604_	9.525	4.76	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine	TPET 0802003L-FSF	0.03																																			●										
	080201R-FSF	0.1																																			●										
	080201L-FSF	0.1																																			●										
	080202R-FSF	0.2				●																															●										
	080202L-FSF	0.2				●																															●										
	TPET 1103003R-FSF	0.03																																			●										
	1103003L-FSF	0.03																																			●										
	110301R-FSF	0.1				●																															●										
	110301L-FSF	0.1				●																															●										
	110302R-FSF	0.2				●																															●										
	110302L-FSF	0.2				●																															●										
	TPET 080202ML-FSF	<0.2																																						●									
Sharp Edge / Precision	TPET 1103005ML-FSF	<0.05																																						●									
	110301MR-FSF	<0.1																																						●									
	110301ML-FSF	<0.1																																						●									
	110302MR-FSF	<0.2																																						●									
	110302ML-FSF	<0.2																																						●									
Finishing — NEW	TPEH 080201MR-P	<0.1																																	●				●									
	080201ML-P	<0.1																																	●				●									
	080202MR-P	<0.2																																	●				●									
	080202ML-P	<0.2																																	●				●									
	080204MR-P	<0.4																																	●				●									
	080204ML-P	<0.4																																	●				●									
Sharp Edge	TPEH 090201MR-P	<0.1																																	●				●									
	090201ML-P	<0.1																																	●				●									
	090202MR-P	<0.2																																	●				●									
	090202ML-P	<0.2																																	●				●									
	090204MR-P	<0.4																																	●				●									
	090204ML-P	<0.4																																	●				●									
	TPEH 110301MR-P	<0.1																																	●				●									
	110301ML-P	<0.1																																	●				●									
	110302MR-P	<0.2																																	●				●									
	110302ML-P	<0.2																																	●				●									
	110304MR-P	<0.4																																	●				●									
	110304ML-P	<0.4																																	●				●									

Ref. to the table below B80

1

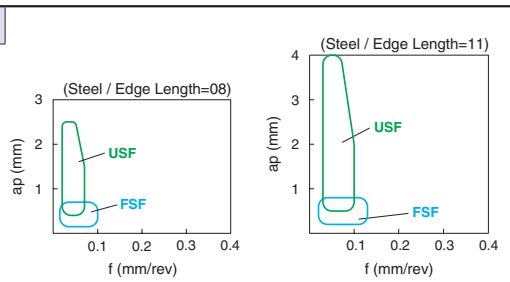
2

· 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

ap indicates radius

1



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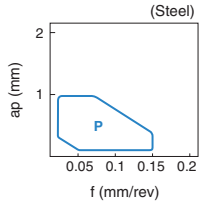

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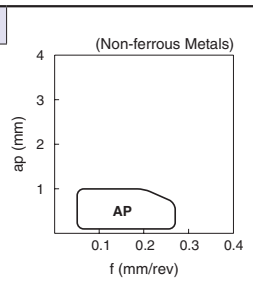


● : Std. Item

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

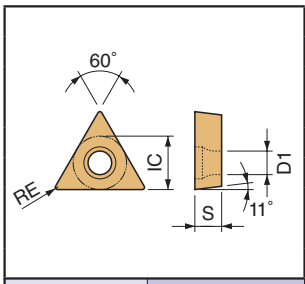
60° Triangle / Positive with Hole

(mm)

Description	IC	S	D1
TP_0802_	4.76	2.38	2.3
TP_0902_	5.56	2.38	3.0
TP_1102_	6.35	2.38	3.5

(mm)

Description	IC	S	D1
TP_1103_	6.35	3.18	3.3
TP_1603_	9.525	3.18	4.5
TP_1604_	9.525	4.76	4.4



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 Alloys
Titanium Alloys
Hard Materials

Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed Super Fine Sharp Edge / Precision	TPET 080201FL-USF	0.1																																				●									
	080202FR-USF	0.2				●																																●									
	080202FL-USF	0.2				●																																●									
	TPET 1103003FR-USF	0.03																																				●									
	1103003FL-USF	0.03																																				●									
	110301FR-USF	0.1				●																																●									
	110301FL-USF	0.1				●																																●									
	110302FR-USF	0.2				●																																●									
	110302FL-USF	0.2				●																																●									
	TPET 080202MFR-USF	<0.2																																						●								
	080202MFL-USF	<0.2																																						●								
	TPET 110301MFL-USF	<0.1																																						●								
	110302MFR-USF	<0.2																																						●								
	110302MFL-USF	<0.2																																						●								
Non-ferrous Metals NEW Finishing / Sharp Edge	TPGT 110302AP	0.2																																									●		●		Ref. to the table below B80	B85 3
	110304AP	0.4																																								●		●			
	110308AP	0.8																																								●		●			
Cast Iron Without Chipbreaker	TPGB 080202	0.2				●																																					●					
	080204	0.4		●		●		●		□	●																																●					
	080208	0.8				●																																					●					
	TPGB 090202	0.2				●																																					●					
	090204	0.4		●		●		●		□	●																																●					
	TPGB 1102005	0.05				●																																					●				F52	-
	110201	0.1				●																																					●					
	110202	0.2				●																																					●					
	110204	0.4	●	●	□	●	●	●																																			●					
	TPGB 1103005	0.05				●																																					●				Ref. to the table below B80	
	110301	0.1				●																																					●					
	110302	0.2	●	●	□	●	●	●		□																																	●					
	110304	0.4	●	●	□	●	●	●		□	●																																●					
	110308	0.8	●	●	□	●	●	●		□	●																																●					
	TPGB 160304	0.4	●	●	□	●	●	●			●																																●					
	160308	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).

Inserts are sold in 10 piece boxes

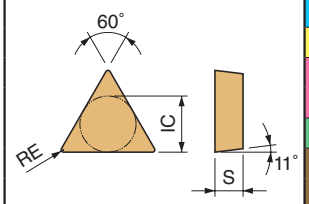
● : Std. Item □ : Deleted from the next catalog

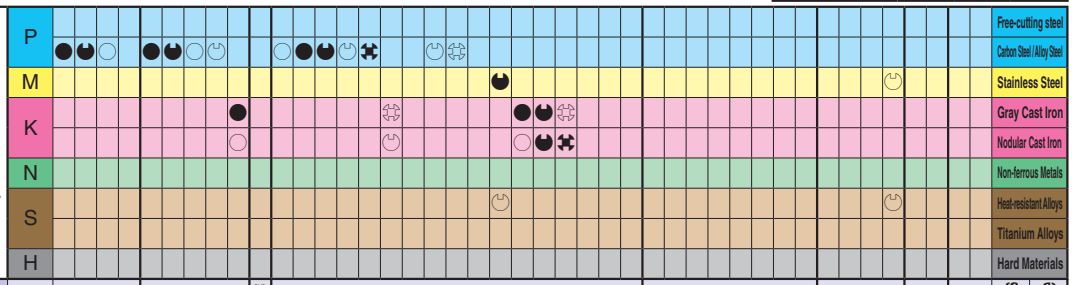
How to read pages of "Turning Inserts" See Page B15

60° Triangle / Positive without Hole

(mm)

Description	IC	S	D1
TP_0902_	5.56	2.38	-
TP_1103_	6.35	3.18	-
TP_1603_	9.525	3.18	-



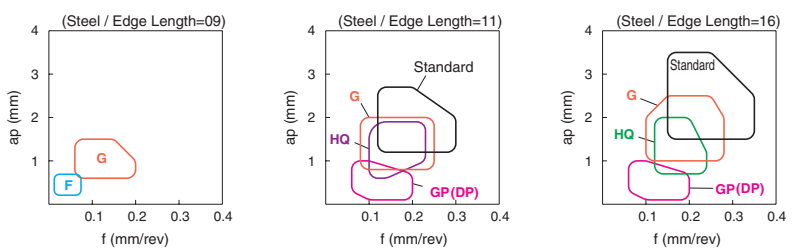


Insert Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	TPMR 110304DP	0.4				●																																									
	TPMR 110308DP	0.8				●																																										
	TPMR 160304DP	0.4				●																																									
	TPMR 160308DP	0.8				●																																										
Finishing	TPMR 110304GP	0.4		●		●		●				□																																		E45	
	TPMR 160304GP	0.4		●		●		●				□	□	●	●	●	●		●	●																										F63	
Finishing - Medium	TPMR 110304HQ	0.4		●		●		●		□		□	●	●	●	●	●		●	●			●																		●					
	TPMR 110308HQ	0.8		●		●		●		□		□	□	●	●	●	●		●	●			●																		●					
	TPMR 160304HQ	0.4	●	●	□	●	●	●	□	□		□	□	●	●	●	●		●	●	●		●																		●					
	TPMR 160308HQ	0.8	●	●		●	●	●	□	□		○	●	●	●	●	●		●	●	●		●																		●					
Medium	TPMR 090202G	0.2				●																																									
	TPMR 090204G	0.4				●													●	●																										F63	1
	TPMR 110304G	0.4		●		●		●				○																																		
	TPMR 110308G	0.8		●		●		●				□																																		
	TPMR 160304G	0.4		●		●		●				□																																		
	TPMR 160308G	0.8		●		●		●				□																																	E45	
Medium	TPMR 110304	0.4	●	●	□	●	●	●					□	●	●	●	□		●	●			●	●	●	●		●														●				F63	
	TPMR 110308	0.8	●	●		●	●	●					●	●	●	●	●		●	●			●	●	●	●	●	●														●					
	TPMR 160304	0.4	●	●	□	●	●	●			●		●	●	●	●	●	●	●	●			●	●	●	●	●	●	□													●					
	TPMR 160308	0.8	●	●	□	●	●	●	□		●		●	●	●	●	●	●	●	●			●	●	●	●	●	●	□													●					
Finishing	TPGR 090202R-F	0.2				●																																									
	TPGR 090202L-F	0.2				●																																									
	090204R-F	0.4				●																																								F63	
Sharp Edge	090204L-F	0.4				●																																									

Applicable Chipbreaker Range

ap indicates radius

1



● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

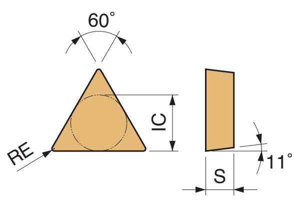
Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" ➡ See Page B15

60° Triangle / Positive without Hole

(mm)

Description	IC	S	D1
TP_0902_	5.56	2.38	-
TP_1103_	6.35	3.18	-
TP_1603_	9.525	3.18	-



Material		TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	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 Alloys																																											
S	Titanium Alloys																																										◕	
H	Hard Materials																																											

Insert	Description	Dimension (mm)	Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide		See Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Left-hand		RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05		
Finishing / Finishing - Medium / Medium	TPGR 110302R-A	0.2			□	●																																									E45 F63	1
	110302L-A	0.2	●	●		●	●	●																																								
	110304R-A	0.4			□	●																																						●			
	110304L-A	0.4	●	●		●	●	●			□																																	●			
	TPGR 110304R-B	0.4			□	●																																									
	110304L-B	0.4	●	●		●	●	●		□		□																																		
	110308R-B	0.8				●																																									
	110308L-B	0.8	●	●		●	●	●		□																																					
	TPGR 160302R-B	0.2	●	●	□	●	●	●																																							
	160302L-B	0.2	●	●	□	●	●	●	□	□	●	□																																		
	160304R-B	0.4	●	●	□	●	●	●																																			●			
	160304L-B	0.4	●	●	□	●	●	●	□	□	●	○																															●			
	160308R-B	0.8	●	●	□	●	●	●																																			●			
	160308L-B	0.8	●	●	□	●	●	●																																			●			
	TPGR 160304R-C	0.4	●	●	□	●	●	●																																						
	160304L-C	0.4	●	●	□	●	●	●	□	□		□																																		
	160308R-C	0.8	●	●	□	●	●	●																																						
	160308L-C	0.8	●	●	□	●	●	●				□																																		
Cast Iron	TPGN 090202	0.2																																									●		F63	-
	090204	0.4				●																																					●			
	090208	0.8				●																																								
	TPGN 110302	0.2																																									●		E45 F63	
	110304	0.4	●	●	□	●	●	●			●																																●			
	110308	0.8	●	●	□	●	●	●			●																																●			
	TPGN 160304	0.4	●	●	□	●	●	●			●																																●			
	160308	0.8	●	●	□	●	●	●			●																																●			
	160312	1.2																																									□			
	TPMN 110304	0.4																●						●	●	●		●	□																●			
	110308	0.8																●						●	●	●	●	●	□																●			
	TPMN 160304	0.4																●						●	●	●	●	●	□																●			
	160308	0.8									●							●						●	●	●	●	●	□																●			
	160312	1.2																						●	●	●		●	□																			

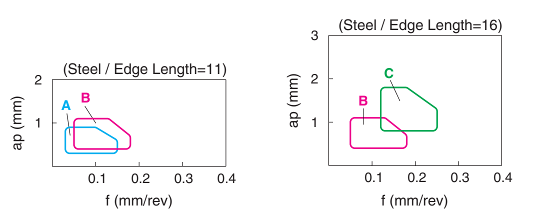
-A : Finishing
-B : Finishing - Medium
-C : Medium

Without Chipbreaker

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

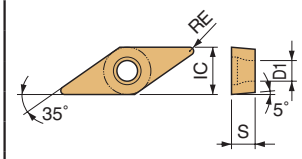
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

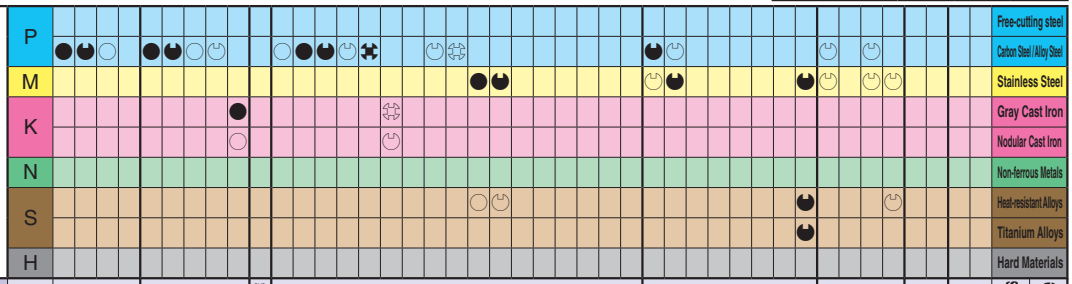
How to read pages of "Turning Inserts" See Page B15

35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VB_1103_	6.35	3.18	2.8
VB_1604_	9.525	4.76	4.4





Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		VBMT 110302PP	0.2	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
		110304PP	0.4	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
		110308PP	0.8	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
		VBMT 160404PP	0.4	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
		160408PP	0.8	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
		160412PP	1.2	●	●	□	●	●	□				●	●	●	●	●													●	●						●										
Finishing		VBMT 110304GP	0.4	●	●	□	●	●	□	□		○	●	●	●	●	●		●	●										●						●		●		●						
		VBMT 160404GP	0.4	●	●	□	●	●	□	□		○	●	●	●	●	●		●	●																	●		●						
		160408GP	0.8	●	●		●	●	□	□		○	□	●	●	●	●		●	●																	●		●						
Finishing		VBMT 110302VF	0.2	●	●	□	●	●	□	□		□	●	●	●	●	□		●	●										●						●	●	●								1
		110304VF	0.4	●	●	□	●	●	□	□		□	●	●	●	●	●	●	●	●	●									●						●	●	●								
		110308VF	0.8	●	●	□	●	●	□	□			●	●	●	●	●	●	●	●										●						●	●	●								
		VBMT 160402VF	0.2	●	●	□	●	●	□	□		□	●	●	●	●	●	●	●	●																	●		●						
		160404VF	0.4	●	●	□	●	●	□	□		○	●	●	●	●	●	●	●	●	●																	●		●						
		160408VF	0.8	●	●		●	●	□	□		○	●	●	●	●	●	●	●	●	●																	●		●						
		160412VF	1.2	●	●		●	●					●	●	●	●	●		●	●																										
Finishing - Medium		VBMT 110304HQ	0.4	●	●	□	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●						●	●	●								
		110308HQ	0.8	●	●	□	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●							●						●	●	●								
		VBMT 160404HQ	0.4	●	●	□	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●																							
		160408HQ	0.8	●	●	□	●	●	□	□	●	○	●	●	●	●	●		●	●	●	●	●																							
		160412HQ	1.2	●	●	□	●	●	□	□		○	●	●	●	●	●		●	●	●																							
Finishing	Super Fine	VBET 1103003R-FSF	0.03				●																													●									
		1103003L-FSF	0.03				●																													●									
		110301R-FSF	0.1				●																													●									
		110301L-FSF	0.1				●																													●									
		110302R-FSF	0.2				●																													●									
		110302L-FSF	0.2				●																													●									
		VBET 1103005MR-FSF	<0.05																												●														2
		1103005ML-FSF	<0.05																												●														
		110301MR-FSF	<0.1																												●														
		110301ML-FSF	<0.1																												●														
		110302MR-FSF	<0.2																												●														
	Sharp Edge / Precision	110302ML-FSF	<0.2																												●														

Ref. to the table below

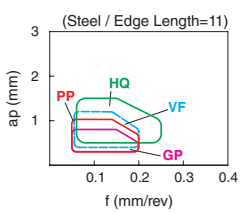
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

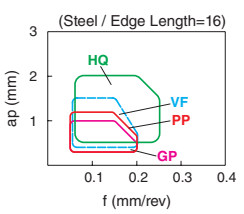
Insert Description	See Page for Applicable Toolholders
VB..1103 type	E30,E31,E32,E39,F54,F56,F59
VB..1604 type	E31,E32,F54,F56,F59

Applicable Chipbreaker Range

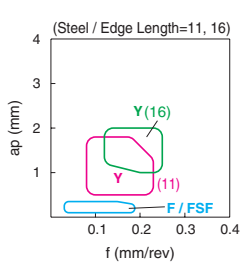
ap indicates radius

1





2



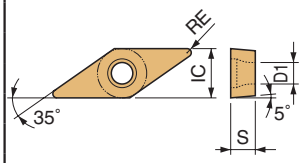
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

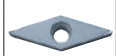
35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VB_1103_	6.35	3.18	2.8
VB_1604_	9.525	4.76	4.4



P Free-cutting steel; Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron; Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys; Titanium Alloys
H Hard Materials

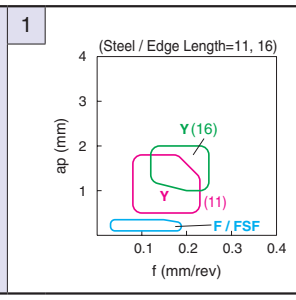
Insert: Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet: TN610	TN620	TN6010	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	CVD Coated Carbide: CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide): PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL010	PDL025	Carbide: KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing  Sharp Edge	VBET 1103005MR-F	<0.05																												●						●											
	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	0.03																																			●						●			
	1103003L-F	0.03																																			●						●			
	110301R-F	0.1		●		●		●		□																											●						●			
	110301L-F	0.1				●				□																											●						●			
	110302R-F	0.2		●	□	●		●		□																											●						●			
	110302L-F	0.2			□	●				□																											●						●			
Finishing Sharp Edge	VBGT 1103005MR-F	<0.05																													●							●								Ref. to the table below	1
	1103005ML-F	<0.05																													●							●									
	110301MR-F	<0.1																													●							●		●	●						
	110301ML-F	<0.1																													●							●		●	●						
	110302MR-F	<0.2																													●							●		●	●						
	110302ML-F	<0.2																													●							●		●	●						
Finishing - Medium  Sharp Edge	VBET 1103005MR-Y	<0.05																													●						●											
	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	●	●			●	●																							●						●											

· 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).

Insert Description	See Page for Applicable Toolholders
VB..1103 type	**E30,E31,E32,E39,F54,F56,F59**
VB..1604 type	**E31,E32,F54,F56,F59**

Applicable Chipbreaker Range — ap indicates radius

1



Inserts are sold in 10 piece boxes

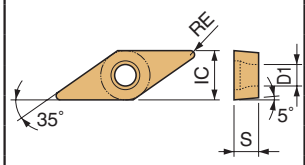
● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

(mm)

Description	IC	S	D1
VB_1103_	6.35	3.18	2.8
VB_1604_	9.525	4.76	4.4

35° Rhombic / Positive with Hole



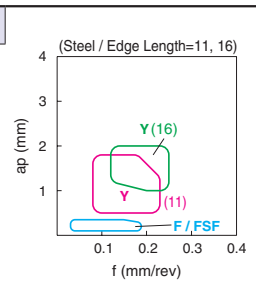
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing - Medium	VBGT 1103003R-Y	0.03																																				●						●		Ref. to the table below	1
	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	0.2	●	●	□	●	●	●		□																												●						●			
	160402L-Y	0.2	●	●	□	●	●	●		□																												●						●			
	160404R-Y	0.4	●	●	□	●	●	●		□																												●						●			
	160404L-Y	0.4	●	●	□	●	●	●		□																												●						●			
	160408R-Y	0.8				●																																●						●			
	160408L-Y	0.8				●																																●						●			
	VBGT 1103005MR-Y	<0.05																															●						●	●								
	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	<0.2																															●						●	●								
	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).

Insert Description	See Page for Applicable Toolholders
VB..1103 type	**E30,E31,E32,E39,F54,F56,F59**
VB..1604 type	**E31,E32,F54,F56,F59**

Applicable Chipbreaker Range
ap indicates radius

1



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

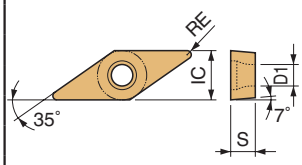
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VC_0802_	4.76	2.38	2.3
VC_1604_	9.525	4.76	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

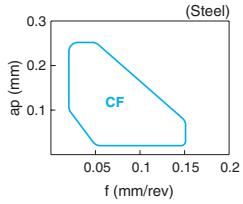
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	NEW Sharp Edge / Polished	VCGT 110301MP-CF	<0.1																											●						●										E33 E34 E39	1
		VCGT 110302MP-CF	<0.2																											●						●											
Finishing	NEW Sharp Edge / Polished	VCGT 110301MFP-GF	<0.1																											●						●										E39	2
		VCGT 110302MFP-GF	<0.2																											●						●											
Finishing		VCMT 080202PP	0.2	●	●	□		●	●	□			●	●	●	●	●													●	●					●										E39 E54 E56 E59	
		VCMT 080204PP	0.4	●	●	□		●	●	□			●	●	●	●	●													●	●					●											
Finishing		VCMT 160404PP	0.4	●	●	□		●	●	□			●	●	●	●	●													●	●					●										E31 E32 E54 E56 E59	3
		VCMT 160408PP	0.8	●	●	□		●	●	□			●	●	●	●	●													●	●					●											
Finishing		VCMT 080202VF	0.2	●	●	□		●	●	□	□		□	●	●	●	□		●	●										●						●			●	●		●				E39 F54	
		VCMT 080204VF	0.4	●	●	□		●	●	□	□		●	●	●	●	●	●	●	●										●						●			●	●		●					
Finishing - Medium		VCMT 080202HQ	0.2	●	●	□	●	●	●	□	□	□	●	●	●	●	●		●	●										●						●			●	●			●			E56 E59	
		VCMT 080204HQ	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).

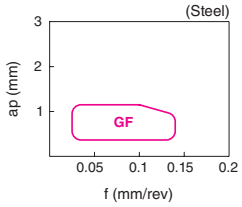
Applicable Chipbreaker Range

ap indicates radius

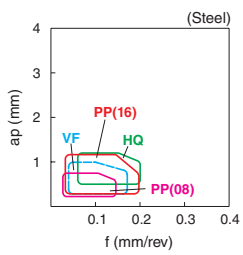
1



2



3



Inserts are sold in 10 piece boxes

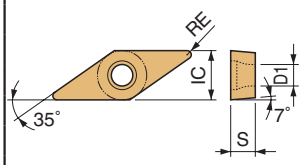
● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VC_0802_	4.76	2.38	2.3
VC_1604_	9.525	4.76	4.4



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

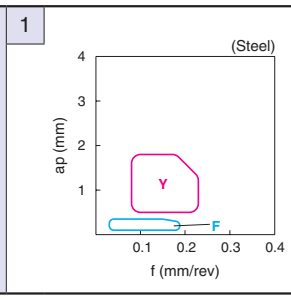
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	TN620	TN6010	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	VCET 110301MR-F	<0.1																											●						●											
	110301ML-F	<0.1																											●						●											
	110302MR-F	<0.2																											●						●											
	110302ML-F	<0.2																											●						●											
	110304MR-F	<0.4																											●						●											
	110304ML-F	<0.4																											●						●											
	Sharp Edge																																													
Finishing - Medium	VCET 1103005MR-Y	<0.05																											●						●										E33 E34 E39	1
	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																											●						●											
	Sharp Edge																																													
Non-ferrous Metals	VCGT 160404AP	0.4																																							●		●			2
	Finishing / Sharp Edge																																												
Non-ferrous Metals	VCGT 160404R-A3	0.4																																							●	●	●		E31 E32 F54 F56 F59	
	160404L-A3	0.4																																							●	●	●			
	160408R-A3	0.8																																							●	●	●			3
	160408L-A3	0.8																																							●	●	●			
Non-ferrous Metals	VCGT 160404AH	0.4																																							●	●	●			
	Finishing - Medium / Sharp Edge																																												

· 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

ap indicates radius

1



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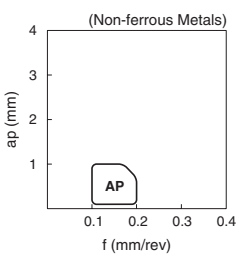
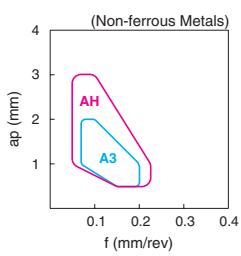


3



● : Std. Item

Inserts are sold in 10 piece boxes

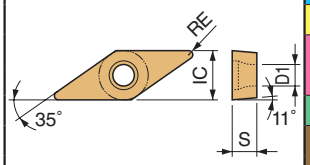
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VP_0802_	4.76	2.38	2.3
VP_1103_	6.35	3.18	2.8



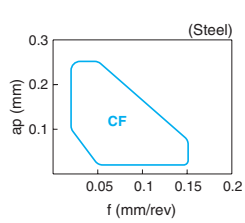
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

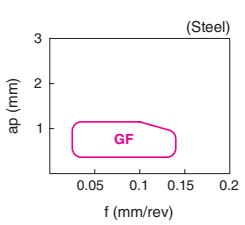
Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	 Sharp Edge	VPGT 110302CF	0.2																																		●								Ref. to the table below	
		VPGT 110301M-CF	<0.1																																			●	●							1
		110302M-CF	<0.2																																			●	●							
Minute ap	 Sharp Edge / Polished	VPGT 110301MP-CF	<0.1																												●	●					●			●			●	●			
		110302MP-CF	<0.2																												●	●					●			●			●	●			
Finishing	 Sharp Edge	VPGT 110301MF-GF	<0.1																																				●							2
		110302MF-GF	<0.2																																				●							
Finishing	 Sharp Edge / Polished	VPGT 110301MFP-GF	<0.1																												●	●					●			●							
		110302MFP-GF	<0.2																												●	●					●			●							
Finishing		VPGT 080201CK	0.1																																			●									
		080202CK	0.2																																			●									
		VPGT 110301CK	0.1																																			●									
		110302CK	0.2																																			●									
		VPGT 080201M-CK	<0.1																																				●	●							3
		080202M-CK	<0.2																																				●	●							
		VPGT 110301M-CK	<0.1																																				●	●							
		110302M-CK	<0.2																																				●	●							
Finishing	 Sharp Edge / Polished	VPGT 080201MP-CK	<0.1																												●	●					●			●			●	●			
		080202MP-CK	<0.2																												●	●					●			●			●	●			
		VPGT 110301MP-CK	<0.1																												●	●					●			●			●	●			
		110302MP-CK	<0.2																												●	●					●			●			●	●			

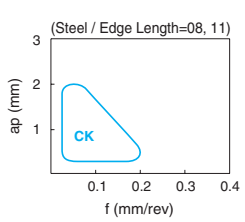
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Insert Description	See Page for Applicable Toolholders
VP..0802 type	**E35,E36,F54**
VP..1103 type	**E21,E35,E36**

Applicable Chipbreaker Range
ap indicates radius

1


2


3


Inserts are sold in 10 piece boxes

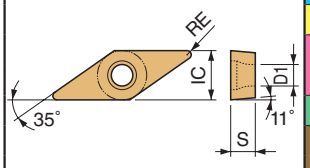
● : Std. Item

How to read pages of "Turning Inserts" See Page B15

(mm)

Description	IC	S	D1
VP_0802_	4.76	2.38	2.3
VP_1103_	6.35	3.18	2.8

35° Rhombic / Positive with Hole



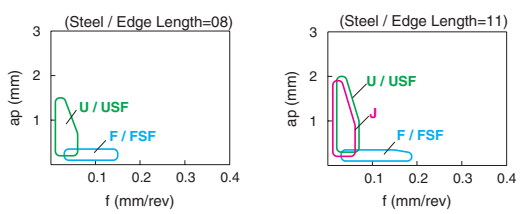
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CVD Coated Carbide CA515	CVD Coated Carbide CA025P	CVD Coated Carbide CA525	CVD Coated Carbide CA530	CVD Coated Carbide CA5505	CVD Coated Carbide CA5515	CVD Coated Carbide CA5525	CVD Coated Carbide CA5535	CVD Coated Carbide CA6515	CVD Coated Carbide CA6525	CVD Coated Carbide CA310	CVD Coated Carbide CA315	CVD Coated Carbide CA320	CVD Coated Carbide CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4120	MEGACOAT (PVD Coated Carbide) PR1425	MEGACOAT (PVD Coated Carbide) PR1225	MEGACOAT (PVD Coated Carbide) PR005S	MEGACOAT (PVD Coated Carbide) PR015S	MEGACOAT (PVD Coated Carbide) PR1305	MEGACOAT (PVD Coated Carbide) PR1310	MEGACOAT (PVD Coated Carbide) PR1325	MEGACOAT (PVD Coated Carbide) PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL010	DLC PDL025	Carbide KW10	Carbide SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine	VPET 080201R-FSF	0.1				●																																					Ref. to the table below B94	1
	080201L-FSF	0.1				●																																							
	080202R-FSF	0.2				●																																							
	080202L-FSF	0.2				●																																							
	VPET 1103003R-FSF	0.03																																											
	1103003L-FSF	0.03																																											
	110301R-FSF	0.1				●																																							
	110301L-FSF	0.1				●																																							
	110302R-FSF	0.2				●																																							
	110302L-FSF	0.2				●																																							
	VPET 080201MR-FSF	<0.1																													●														
	080201ML-FSF	<0.1																													●														
	080202MR-FSF	<0.2																													●														
	080202ML-FSF	<0.2																													●														
	VPET 1103005MR-FSF	<0.05																													●														
	1103005ML-FSF	<0.05																													●														
	110301MR-FSF	<0.1																													●														
	110301ML-FSF	<0.1																													●														
	110302MR-FSF	<0.2																													●														
	110302ML-FSF	<0.2																													●														
Finishing — Sharp Edge / Precision	VPET 080201MR-F	<0.1																													●						●								
	080201ML-F	<0.1																													●						●								
	080202MR-F	<0.2																													●						●								
	080202ML-F	<0.2																													●						●								
	VPET 1103005MR-F	<0.05																													●						●								
	110301MR-F	<0.1																													●						●								
	110302MR-F	<0.2																													●						●								
	110302ML-F	<0.2																													●						●								
Sharp Edge																																													

· 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 — ap indicates radius

1



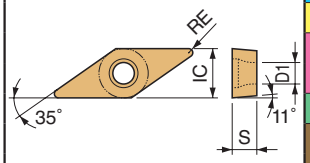
● : Std. Item

Inserts are sold in 10 piece boxes

35° Rhombic / Positive with Hole

(mm)

Description	IC	S	D1
VP_0802_	4.76	2.38	2.3
VP_1103_	6.35	3.18	2.8



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert: Handed Insert shows Left-hand	Description	Dimension (mm) RE	Cermet: TN610	TN620	TN6010	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	CVD Coated Carbide: CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide): PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL010	PDL025	Carbide: KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed / Super Fine	VPET 080201FR-USF	0.1				●																															●									
	080201FL-USF	0.1				●																															●									
	080202FR-USF	0.2				●																															●									
	080202FL-USF	0.2				●																															●									
	VPET 1103003FR-USF	0.03																																			●									
	1103003FL-USF	0.03																																			●									
	110301FR-USF	0.1				●																															●									
	110301FL-USF	0.1				●																															●									
	110302FR-USF	0.2				●																															●									
	110302FL-USF	0.2				●																															●									
	VPET 080201MFR-USF	<0.1																													●										●							
	080202MFR-USF	<0.2																													●										●							
	080202MFL-USF	<0.2																													●										●							
	VPET 1103005MFR-USF	<0.05																													●																	
	1103005MFL-USF	<0.05																													●																	
	110301MFR-USF	<0.1																													●											●						
	110301MFL-USF	<0.1																													●											●						
	110302MFR-USF	<0.2																													●											●						
	110302MFL-USF	<0.2																													●											●						
Low Feed / Sharp Edge	VPET 080201MFR-U	<0.1																													●							●									
	080201MFL-U	<0.1																													●							●									
	080202MFR-U	<0.2																													●							●									
	080202MFL-U	<0.2																													●							●									
	VPET 1103005MFR-U	<0.05																													●							●									
	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	<0.05																													●	●						●									
	110301MFR-J	<0.1																													●	●						●									
	110301MFL-J	<0.1																													●	●						●									
	110302MFR-J	<0.2																													●	●						●									
	110302MFL-J	<0.2																													●	●						●									

Ref. to the table below B94

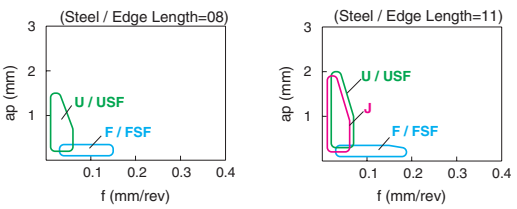
1

· 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

ap indicates radius

1



Inserts are sold in 10 piece boxes

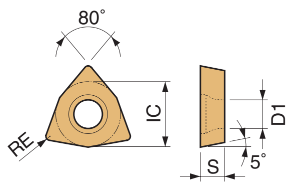
● : Std. Item

How to read pages of "Turning Inserts" ➡ See Page B15

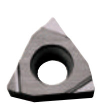
80° Trigon / Positive with Hole

(mm)

Description	IC	S	D1
WB_0601_	3.97	1.59	2.3
WB_0802_	4.76	2.38	2.3



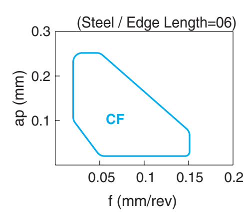
Work Material	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05
P Free-cutting steel																																					◕						
P Carbon Steel / Alloy Steel	●	◕	○		●	◕	○	◔			○	●	◕	◔	✖			◔										◕	◔							◔		◔					
M Stainless Steel																												◔	◔						◕	◔		◔					
K Gray Cast Iron																																											
K Nodular Cast Iron																																											
N Non-ferrous Metals																																											
S Heat-resistant Alloys																																			◕								
S Titanium Alloys																																			◕								
H Hard Materials																																											

Type	Insert (Handed Insert shows Left-hand)	Description	RE	TN610	TN620	TN6010	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
			Dimension (mm)	Cermet				MEGACOAT Cermet					PVD Coated Cermet	CVD Coated Carbide																	MEGACOAT (PVD Coated Carbide)								PVD Coated Carbide				DLC		Carbide			
Minute ap	 Sharp Edge	WBGT 060102MR-CF	<0.2																																						□							1
		060102ML-CF	<0.2																																					●	●							
Minute ap	 Sharp Edge / Polished	WBGT 060101MPR-CF	<0.1																												●							●										
		060101MPL-CF	<0.1																												●	●						●			□							
		060102MPR-CF	<0.2																												●	●						●			●							
		060102MPL-CF	<0.2																												●	●						●			●							
Finishing	NEW  Sharp Edge / Polished	WBGT 060101MFPR-PF	<0.1																												●							●										2
		060101MFPL-PF	<0.1																												●							●										
		060102MFPR-PF	<0.2																												●							●										
		060102MFPL-PF	<0.2																												●							●										
		WBGT 080201MFPR-PF	<0.1																												●							●										
		080201MFPL-PF	<0.1																												●							●										
		080202MFPR-PF	<0.2																												●							●										
		080202MFPL-PF	<0.2																												●							●										
Finishing		WBMT 060102R-DP	0.2		●		●		●																						●							●	●		●						F21 F61	
		060102L-DP	0.2	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●										●							●	●		●							
		060104R-DP	0.4		●		●		●																						●							●	●		●							
		060104L-DP	0.4	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●										●							●	●		●							
		WBMT 080202R-DP	0.2		●		●		●												●										●							●	●		●							
		080202L-DP	0.2	●	●	□	●	●	●	□	□			□	●	●	●	●		●	●										●							●	●		●							
		080204R-DP	0.4		●		●		●											●	●										●							●	●		●							
		080204L-DP	0.4	●	●	□	●	●	●	□	□			●	●	●	●	●		●	●										●							●	●		●							
Finishing	 Sharp Edge	WBET 0601005ML-F	<0.05																												●							●										3
		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	<0.1	●				●																																								
		080201ML-F	<0.1	●				●																							●							●										
		080202MR-F	<0.2	●				●																																								
		080202ML-F	<0.2	●	●			●	●																						●							●										
		080204MR-F	<0.4	●				●																							●							●										
		080204ML-F	<0.4	●	●			●	●																						●							●										

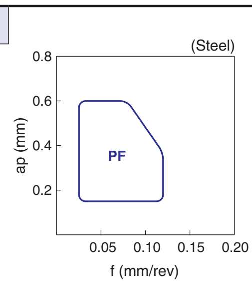
· Insert whose corner-R(RE) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance on corner-R(RE).

Applicable Chipbreaker Range
ap indicates radius

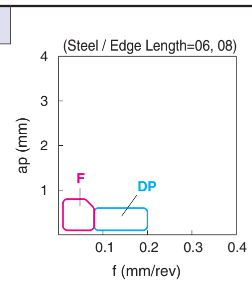
1



2



3



● : Std. Item □ : Deleted from the next catalog

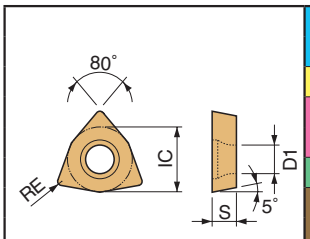
Inserts are sold in 10 piece boxes

A Insert Grades
B Turning Indexable Inserts
C CBN & PCD Tools
D External
E Small Parts Machining
F Boring
G Grooving
H Cut-off
J Threading
K Drilling
L Solid Tools
M Milling
N Tools for Turning Mill
P Spare Parts
R Technical Information
T Index

80° Trigon / Positive with Hole

(mm)

Description	IC	S	D1
WB_0601_	3.97	1.59	2.3
WB_0802_	4.76	2.38	2.3



P Free-cutting steel; Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron; Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys; Titanium Alloys
H Hard Materials

Insert	Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	WBGT 0601003L-F	0.03				●																															●						●			
	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 0802003L-F	0.03																																			●									
	080201L-F	0.1				●																															●						●			
	080202R-F	0.2			□	●			□																												●						●			
	080202L-F	0.2			□	●			□	□		□																									●						●			
	080204R-F	0.4			□	●																															●						●			1
	080204L-F	0.4			□	●			□	□		□																									●						●			
	WBGT 060101ML-F	<0.1																																				●	●							
	060102MR-F	<0.2																																				●	●							
	060102ML-F	<0.2																																				●	●							
	060104MR-F	<0.4																																				●	●							
	060104ML-F	<0.4																																				●	●							F21 F61
	WBGT 080201ML-F	<0.1																																					●							
	080202ML-F	<0.2																																					●							
	080204MR-F	<0.4																																					●							
	080204ML-F	<0.4																																					●							
Finishing NEW	WBET 080201MR-P	<0.1																															●				●									
	080201ML-P	<0.1																															●				●									
	080202MR-P	<0.2																															●				●									2
	080202ML-P	<0.2																															●				●									
	080204MR-P	<0.4																															●				●									
	080204ML-P	<0.4																															●				●									
Cast Iron	WBGW 060102L	0.2				●																																					●			
	060104L	0.4				●																																								-
	WBGW 080202L	0.2				●																																					●			
	080204L	0.4				●																																								

Sharp Edge

Sharp Edge

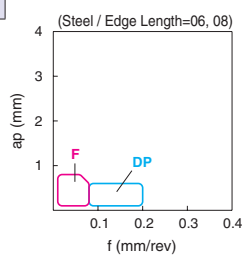
Without Chipbreaker

· 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).

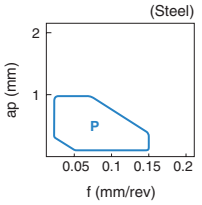
Applicable Chipbreaker Range

ap indicates radius

1



2



Inserts are sold in 10 piece boxes

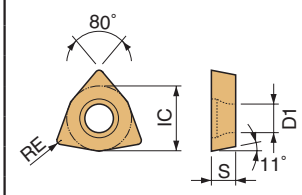
● : Std. Item □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

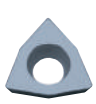
(mm)

Description	IC	S	D1
WP_1102_	6.35	2.38	2.8
WP_1603_	9.525	3.18	4.4

80° Trigon / Positive with Hole



P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

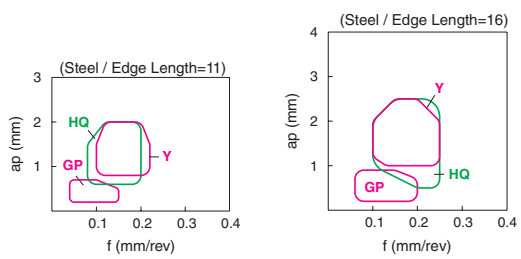
Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) RE	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	CVD Coated Carbide CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	CA4120	MEGACOAT (PVD Coated Carbide) PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL010	PDL025	Carbide KW10	SW05	See Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		WPMT 110204GP	0.4		●		●		●				□	□	●	●	●	□			●																	●		●							
		WPMT 160304GP	0.4		●		●		●					□	●	●	●	□			●	●																	□		●							
Finishing - Medium		WPMT 110202HQ	0.2		●		●		●				□	□	●	●	●	□			●	●																	●		●							
		110204HQ	0.4	●	●	□	●	●	●	□	□		□	●	●	●	●	●			●	●	●	●															●		●	●						
		WPMT 160304HQ	0.4	●	●	□	●	●	●	□	□		□	●	●	●	●	●			●	●	●	●															●		●	●						
		160308HQ	0.8	●	●		●	●	●	□	□		□	●	●	●	●	●			●	●	●	●															●		●	●						
Finishing - Medium		WPGT 110202L-Y	0.2				●																															●						●			1
		110204R-Y	0.4																																			●						●			
		110204L-Y	0.4				●						□																									●						●			
		WPGT 160304R-Y	0.4				●																															●								F61	
		160304L-Y	0.4				●																															●						●			
		160308L-Y	0.8																																			●						●			
		WPGT 110204MR-Y	<0.4																																				●									
		110204ML-Y	<0.4																																				●	●								
		WPGT 160304MR-Y	<0.4																																					●								
		160304ML-Y	<0.4																																				●									
Cast Iron	 Without Chipbreaker	WPGW 110202	0.2																																									●			-
		110204	0.4																																									●			
		WPGW 160304	0.4																																									●			-
		160308	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

ap indicates radius

1



● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

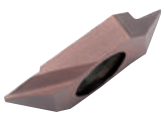
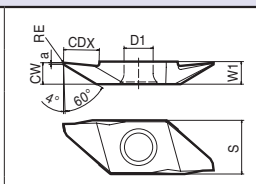
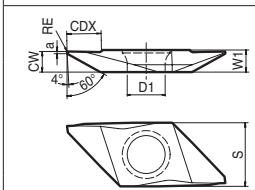
Inserts for Back Turning (Small Parts Machining)

		PR1425	PR1535	PR1225	PR1025	KW10
P	Free-cutting steel					
	Carbon Steel / Alloy Steel	●	◡	◡	◡	
M	Stainless Steel	◡	●	◡	◡	
K	Gray Cast Iron					●
	Nodular Cast Iron					◡
N	Non-ferrous Metals					●
S	Heat-resistant Alloys	◡	●	◡	◡	
	Titanium Alloys		●			◡
H	Hard Materials					

MEGACOAT / MEGACOAT NANO | PVD Coated Carbide | Carbide

See Page for Applicable Toolholders

For KTKF toolholder

Insert (Photo shows Right-hand)	Description	CW	a	CDX	RE	W1	S	D1	PR1425	PR1535	PR1225	PR1025	KW10	See Page for Applicable Toolholders
  ● Right-hand shown	TKFB 12R15005M	1.5	0.25	2.6	<0.05	3.0	8.7	5.2	●	●	●	●	●	E12
	TKFB 12R28005M	2.8	0.3	4.6	<0.05				●	●	●	●	●	
	TKFB 12R28010M				<0.1				●	●	●	●	●	
	TKFB 16R38005M	3.8	0.3	6.3	<0.05	4.0	9.5	5.2	●	●	●	●	●	
	TKFB 16R38010M				<0.1				●	●	●	●	●	
 ● Left-hand shown	TKFB 12L28005MR	2.8	0.3	4.6	<0.05	3.0	8.7	5.2		●	●			
	TKFB 12L28010MR				<0.1					●	●			
	TKFB 16L38005MR	3.8	0.3	6.3	<0.05	4.0	9.5	5.2		●	●			
	TKFB 16L38010MR				<0.1					●	●			

· 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)

TKFB 12 R 15 005 M R

- TKFB — Insert Type
- 12 — Insert Size
- R — Insert Hand: R : Right-hand, L : Left-hand
- 15 — Insert width
- 005 — Corner-R(RE)
- M — Indicates the corner-R(RE) has a minus tolerance
- R — Hand of Cutting Lead Angle: R : Right-hand

Table 1

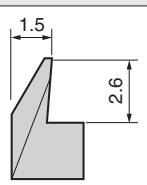
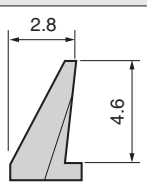
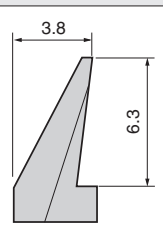
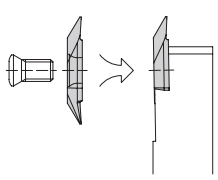
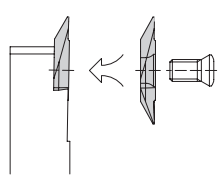
Small machining	General purpose	Large machining
		
TKFB12R15..	TKFB12R28..	TKFB16R38..

Table 2

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

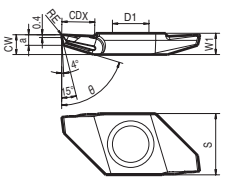
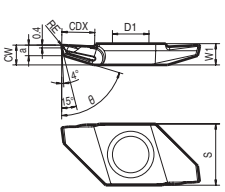
Inserts are sold in 10 piece boxes

● : Std. Item

How to read pages of "Turning Inserts" See Page B15

P	Free-cutting steel			
	Carbon Steel / Alloy Steel	●	○	○
M	Stainless Steel	○	●	○
K	Gray Cast Iron			
	Nodular Cast Iron			
N	Non-ferrous Metals			
S	Heat-resistant Alloys	○	●	○
	Titanium Alloys		●	
H	Hard Materials			

For KTKF toolholder (GQ Chipbreaker)

Insert (Handed Insert shows Right-hand)		Description	CW	a	CDX	RE	W1	S	D1	θ	MEGACOAT NANO PR1425	MEGACOAT NANO PR1535	MEGACOAT NANO PR1225	See Page for Applicable Toolholders
 Polished		TKFB 12R28005P-GQ	2.8	1.5	4.6	0.05	3.0	8.7	5.2	74°	●	●	●	E12
		12R28015P-GQ				0.15					●	●	●	
		TKFB 16R38005P-GQ	3.8	1.8	6.3	0.05	4.0	9.5	5.2	72°	●	●	●	
		16R38015P-GQ				0.15					●	●	●	
		TKFB 12R28005-GQ	2.8	1.5	4.6	0.05	3.0	8.7	5.2	74°	●	●	●	
		12R28015-GQ				0.15					●	●	●	
		TKFB 16R38005-GQ	3.8	1.8	6.3	0.05	4.0	9.5	5.2	72°	●	●	●	
		16R38015-GQ				0.15					●	●	●	

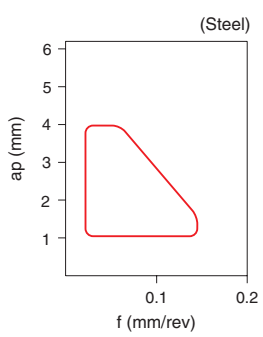
Inserts Identification System

TKFB 12 R 28 005 P -GQ

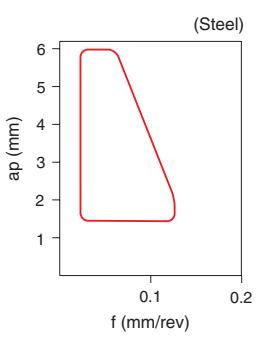
- TKFB 12 — Insert Type
- 12 — Insert Size
- R — Insert Hand (R : Right-hand)
- 28 — Insert width
- 005 — Corner-R(RE)
- P — Polished
- -GQ — GQ Chipbreaker

Applicable Chipbreaker Range

TKFB12R28...GQ



TKFB16R38...GQ



● : Std. Item

Inserts are sold in 10 piece boxes

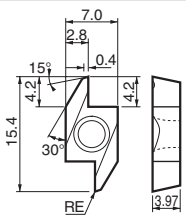
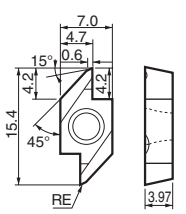
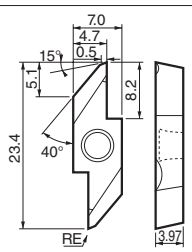
Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

Inserts for Back Turning (Small Parts Machining)

		Cermet	MEGACOAT / MEGACOAT NANO		PVD Coated Carbide			Carbide
P	Free-cutting steel					●		
	Carbon Steel / Alloy Steel		●	◡	◡		◡	
M	Stainless Steel		◡	●	◡		◡	
K	Gray Cast Iron							●
	Nodular Cast Iron							◡
N	Non-ferrous Metals							●
S	Heat-resistant Alloys		◡	●				
	Titanium Alloys							●
H	Hard Materials							

● For AABS / SABS / AABW / SABW toolholders

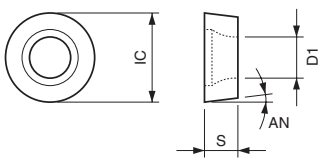
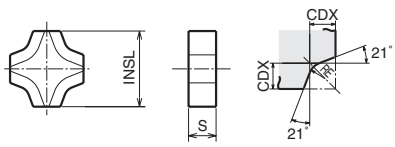
Insert (Handed Insert shows Right-hand)		Description		Dimension (mm) RE	TC60M	PR1425	PR1225	PR930	PR1005	PR1025	KW10	See Page for Applicable Toolholders
		ABS	15R4005	0.05	●			●			●	E17
			15R4015	0.15	●			●			●	
		ABS	15R4005M	<0.05		●	●		●	●		
			15R4015M	<0.15		●	●		●	●		
		ABW	15R4005	0.05	●			●			●	E18
			15R4015	0.15	●			●			●	
		ABW	15R4005M	<0.05		●	●		●	●		
			15R4015M	<0.15		●	●		●	●		
		ABW	23R5005	0.05	●			●			●	E19
			23R5015	0.15	●			●			●	
		ABW	23R5005M	<0.05		●	●			●		
			23R5015M	<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).

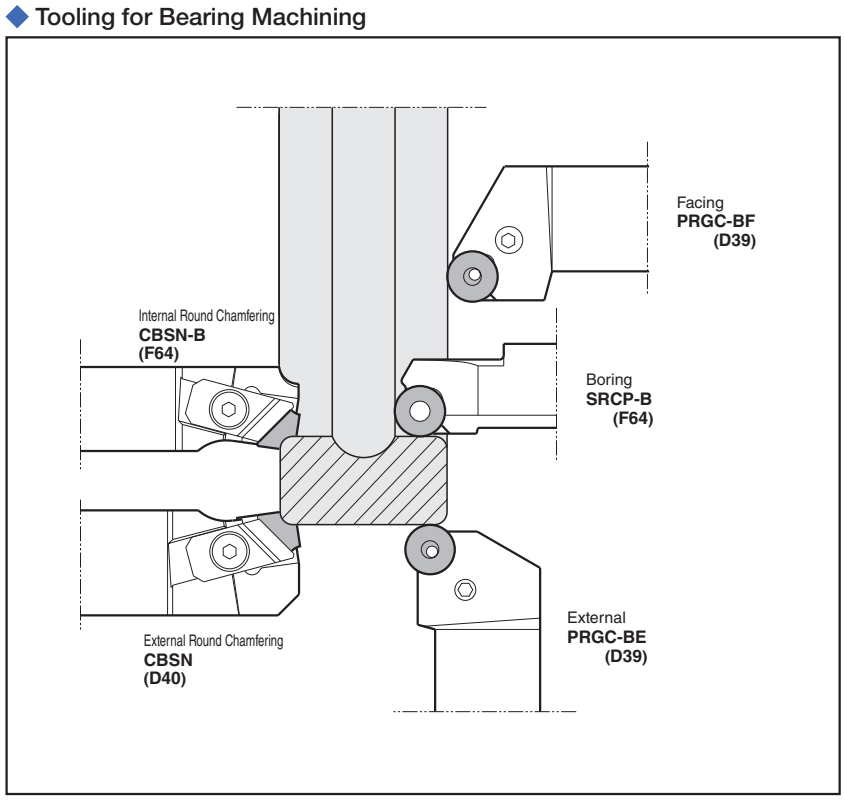
Inserts are sold in 10 piece boxes

● : Std. Item

Bearing Machining

Insert		Description		Dimension (mm) IC	S	D1	RE	Relief Angle AN	Cermet TN90	See Page for Applicable Toolholders
External/Boring/Facing	 	**RCMT**	**1204M0-BB**	12.0	4.76	4.2	-	7°	●	**D39**
			1606M0-BB	16.0	6.35	5.5			●	
		RPMT	**1203M0-BB**	12.0	3.18	4.4	-	11°	●	**F64**
			1604M0-BB	16.0	4.76	5.5			●	
Round Chamfering	 			INSL	S	CDX	RE			
		SNMF	**120406-21**	12.70	4.76	1.5	0.6	-	●	**D40** **F64**
			120410-21			3.0	1.0		●	
			120416-21			3.1	1.6		●	
			120421-21			3.2	2.1		●	
			120426-21			3.3	2.6		●	

Tooling for Bearing Machining



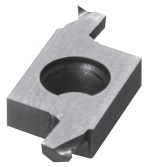
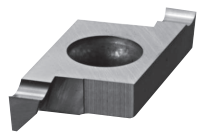
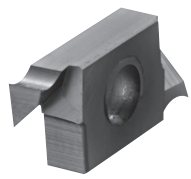
● : Std. Item

Inserts are sold in 10 piece boxes

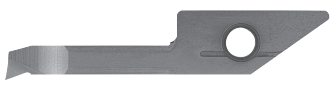
Turning Indexable Inserts

Micro Boring

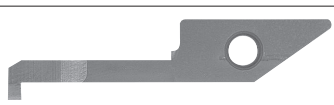
● Twin-Bars

Micro Boring	Micro Face Grooving
TWB Twin-Bars ➡See Page **F37**	TWFG Twin-Bars ➡See Page **G78**
	
TWBT Twin-Bars ➡See Page **F38**	TWFGT Twin-Bars ➡See Page **G79**
	

● EZ Bars / System Tip-Bars / Tip-Bars

Micro Boring		Micro Back Boring
EZB EZ Bars ➡See Page **F14**	EZVB EZ Bars ➡See Page **F22**	-
		-
VNB-S / VNB System Tip-Bars ➡See Page **F30**	VNBX-S System Tip-Bars ➡See Page **F34**	VNBT System Tip-Bars ➡See Page **F31**
		
PSB-S Tip-Bars ➡See Page **F39**	-	PSBT-S Tip-Bars ➡See Page **F39**
	-	

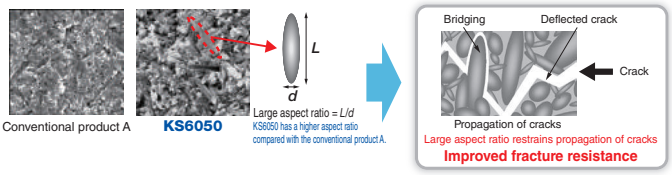
Solid Tip-Bars [Grooving / Threading]

Micro Grooving	Micro Face Grooving	Micro Internal Threading
EZG EZ Bars ➡See Page **G49**	EZFG EZ Bars ➡See Page **G74**	EZT EZ Bars ➡See Page **J30**
		
VNG System Tip-Bars ➡See Page **G51**	VNFG System Tip-Bars ➡See Page **G76**	VNT System Tip-Bars ➡See Page **J34**
		
PSG Tip-Bars ➡See Page **G52**	PSFG Tip-Bars ➡See Page **G77**	PST Tip-Bars ➡See Page **J34**
		

High Speed Machining for Cast Iron KS6050/CS7050

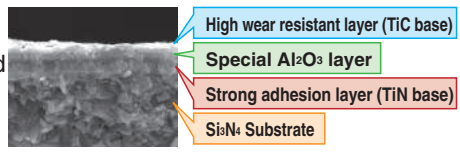
- Improved fracture resistance by high aspect ratio constituents
- Anti-chipping in scale processing and interrupted machining
- High speed machining of cast iron by controlling grain boundary phase (good wear resistance)

KS6050

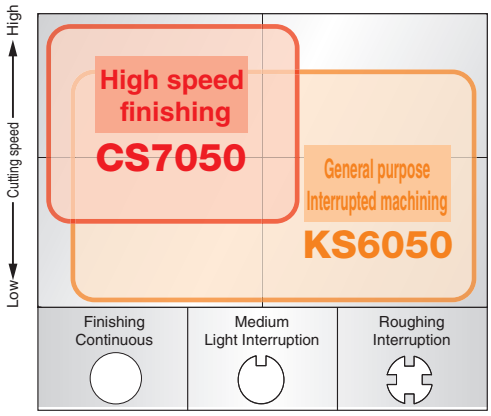


CS7050 (Coated Si_3N_4)

Superior wear resistance attained with strong coating adherence
Applicable to high speed machining

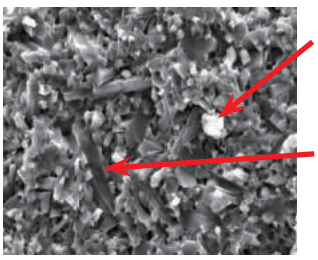


Application Map



Heat-Resistant Alloys Machining SiAlON Ceramic KS6030/KS6040

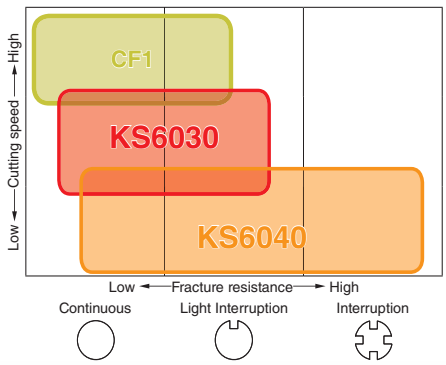
- Improved wear and fracture resistance due to the mixture of the hard and acicular particles



- Superior balance in heat resistant alloys machining achieves optimum balance between wear and fracture resistance

Application Map

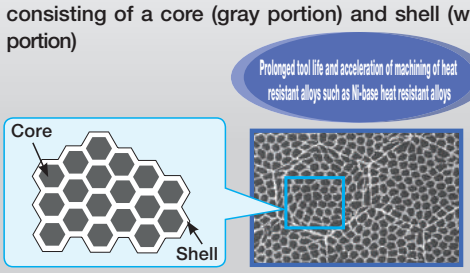
· Heat-Resistant Alloys Machining



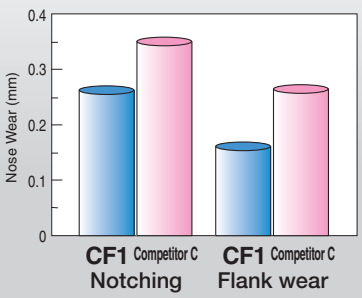
Heat-Resistant Alloys Machining Honeycomb structure Ceramic CF1

What is Honeycomb structure Ceramic?

Honeycomb structure Ceramic is a composite material consisting of a core (gray portion) and shell (white portion)



Wear Resistance Comparison (Internal evaluation)



<Cutting Conditions>
Workpiece Material Ni-base heat-resistant alloys
Tool geometry : RNGN120400
Vc =150m/min, ap =1mm
f =0.15mm/rev Wet

Ceramic Inserts Identification System

Identification System

C	N	G	A	12	04	04	S01525

"Turning Indexable Inserts Identification System" See Page B2

Edge Prep. (Ref. to the Table 1)

Edge Preparation Identification System

Table 1

Edge Prep.	Symbol	Cutting Edge Spec.	Example		Shape
	S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge	
	T	Chamfered Cutting Edge	T02025	0.20mm x 25° Chamfered Cutting Edge	

See Page B3 for insert color

Turning Indexable Inserts

How to read pages of "Turning Inserts" See Page B15

80° Rhombic / Negative

(mm)

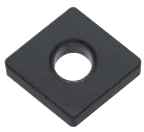
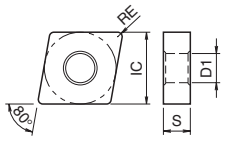
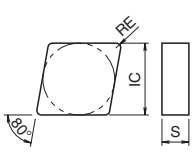
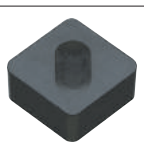
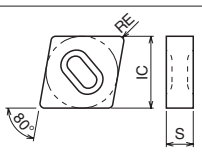
Description	IC	S	D1
CN_A 1204_	12.70	4.76	5.16
CN_N 1204_	12.70	4.76	-
1207_		7.94	

(mm)

Description	IC	S	D1
CNGN1607_	15.875	7.94	-
CNGX1207_	12.70	7.94	-

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge

K	Gray Cast Iron (With Scale)	✱ ↻
	Gray Cast Iron (Without Scale)	● ↻ ↻ ↻ ●
	Nodular Cast Iron (With Scale)	↻
	Nodular Cast Iron (Without Scale)	↻
S	Heat-resistant Alloys	✱ ●
H	Hard Materials	○ ● ↻

Insert		Description		Edge Prep.	Dimension (mm)	Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	DIOCoated Silicon Nitride Ceramic	SiAlON Ceramic		Honeycomb structure Ceramic	See Page for Applicable Toolholders
					RE	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	
		CNGA	120412S01025	S01025	1.2	●										D8 D9 F65 F69 F70
		CNGA	120404S01525 120408S01525 120412S01525	S01525	0.4 0.8 1.2				● ● ●							
		CNGA	120404S02025 120408S02025 120412S02025	S02025	0.4 0.8 1.2					● ● ●						
		CNGA	120404S03030 120408S03030 120412S03030	S03030	0.4 0.8 1.2				● ● ●							
		CNGA	120412T00520	T00520	1.2	□										
		CNGA	120404T02025 120408T02025 120412T02025	T02025	0.4 0.8 1.2		● ●	● ●		● ● ●	● ●	● ●				
		CNMA	120408S01525	S01525	0.8				●							
		CNMA	120408S03030 120412S03030	S03030	0.8 1.2				● ●							
		CNGN	120408S01025 120412S01025	S01025	0.8 1.2	● ●										
		CNGN	120408T01020 120412T01020	T01020	0.8 1.2									● ●	● ●	
		CNGN	120408T02025 120412T02025 120416T02025	T02025	0.8 1.2 1.6					● ●	● ● ●	● ●		● ●		
		CNGN	120708S01525 120712S01525	S01525	0.8 1.2				● ●							
		CNGN	120708T01020 120712T01020	T01020	0.8 1.2										● ●	D24
		CNGN	120704T02025 120708T02025 120712T02025 120716T02025	T02025	0.4 0.8 1.2 1.6		● ● ● ●									
		CNGN	160708T02025 160712T02025 160716T02025	T02025	0.8 1.2 1.6		● ● ●									
		CNMN	120708T02025 120712T02025	T02025	0.8 1.2		● ●									
		CNGX	120712T01020 120716T01020	T01020	1.2 1.6									○ ○		D30 F82
		CNGX	120708T02025 120712T02025 120716T02025	T02025	0.8 1.2 1.6						○ ○ ○	○ ○ ○		○ ○		

Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability □ : Deleted from the next catalog

How to read pages of "Turning Inserts" See Page B15

55˚ Rhombic / 75˚ Rhombic / Negative

(mm)

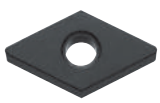
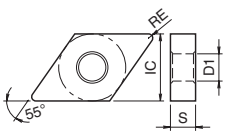
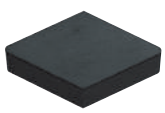
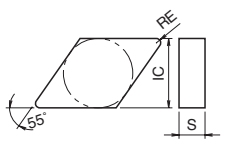
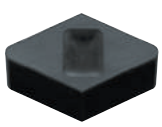
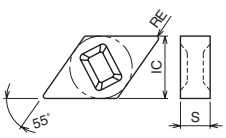
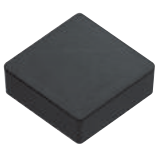
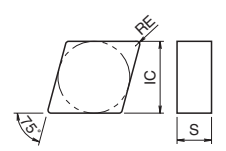
Description	IC	S	D1
DNGA 1504_	12.70	4.76	5.16
1506_		6.35	
DNGN 1504_	12.70	4.76	-
1507_		7.94	

(mm)

Description	IC	S	D1
DNGX 1207_	10.00	7.94	-
DNGX 1507_	12.70	7.94	-
ENGN 1307_	12.70	7.94	-

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01225	0.12mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01215	0.12mm x 15° Chamfered Cutting Edge

		KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1
K	Gray Cast Iron (With Scale)						✖	○			
	Gray Cast Iron (Without Scale)	●		○		○	○	●			
	Nodular Cast Iron (With Scale)							○			
	Nodular Cast Iron (Without Scale)							○			
S	Heat-resistant Alloys										
H	Hard Materials				○	●					

Insert	Description		Edge Prep.	Dimension (mm) RE	Aluminum Oxide Ceramic KA30	A65	KT66	PVD Coated Ceramic A66N	MEGACOAT Ceramic PT600M	Silicon Nitride Ceramic KS6050	CVD Coated Silicon Nitride Ceramic CS7050	SiAlON Ceramic KS6030	KS6040	Honeycombstructure Ceramic CF1	See Page for Applicable Toolholders
		DNGA	150408S01025	S01025	0.8	●									
		DNGA	150404S01525 150408S01525	S01525	0.4 0.8				● ●						D12
		DNGA	150404S02025 150408S02025	S02025	0.4 0.8					● ●					D13 F66
		DNGA	150408S03030	S03030	0.8				●						F72
		DNGA	150404T02025 150408T02025 150412T02025	T02025	0.4 0.8 1.2		● ●	 ● ●		● ● ●					F73
		DNGA	150604T02025 150608T02025 150612T02025	T02025	0.4 0.8 1.2			 ● 		● ● ●					D12 D13 F66
		DNGN	150704S01525 150708S01525 150712S01525	S01525	0.4 0.8 1.2				● ● ●						D25
		DNGN	150708S02025	S02025	0.8					●					
		DNGN	150704T02025 150708T02025 150712T02025 150716T02025	T02025	0.4 0.8 1.2 1.6		● ● ● ●								
		DNGX	120708T02025 120712T02025	T02025	0.8 1.2						○ ○				D31 F82
		DNGX	150708T02025 150712T02025	T02025	0.8 1.2						○ ○	○ ○			D31
		ENGN	130708S01525 130712S01525	S01525	0.8 1.2				● ●						
		ENGN	130704T02025 130708T02025 130712T02025 130716T02025 130720T02025	T02025	0.4 0.8 1.2 1.6 2.0		● ● ● ● ●			●					D25 F81

Round / Negative

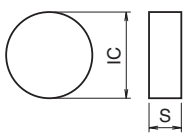
(mm)

Description	IC	S	D1
RNGN 0903_	9.525	3.18	-
0904_		4.76	
0907_		7.94	
1204_	12.70	4.76	

Description	IC	S	D1
RNGN 1207_	12.70	7.94	-
1507_	15.875		
1907_	19.05		
2507_	25.40		

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01225	0.12mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01215	0.12mm x 15° Chamfered Cutting Edge

K	Gray Cast Iron (With Scale)	✖ ◔
	Gray Cast Iron (Without Scale)	◔ ◔ ◔ ●
	Nodular Cast Iron (With Scale)	◔
	Nodular Cast Iron (Without Scale)	◔
S	Heat-resistant Alloys	● ✖ ◔
H	Hard Materials	○ ●

Insert	Description		*Edge Prep.	Dimension (mm) RE	Aluminum Oxide Ceramic KA30	A65	KT66	PVD Coated Ceramic A66N	MEGACOAT Ceramic PT600M	Silicon Nitride Ceramic KS6050	CVD Coated Silicon Nitride Ceramic CS7050	SiAlON Ceramic KS6030	KS6040	Honeycombstructure Ceramic CF1	See Page for Applicable Toolholders
		RNGN 090300E003	E003	-								●	□		
		090300E005	E005	-									□		
		090300T01020	T01020	-								●	□		
		RNGN 090400S01525	S01525	-				●							D35
		090400S02025	S02025	-					●						
		090400T01020	T01020	-										●	
		090400T02025	T02025	-		●			●						
		RNGN 090700T01020	T01020	-										●	-
		RNGN 120400E003	E003	-								●			
		120400E005	E005	-									□		
		120400S01525	S01525	-				●							
		120400S02025	S02025	-					●						
		120400T01020	T01020	-								●	●	●	
		120400T02025	T02025	-		●	●		●	●	●				
		RNGN 120700E003	E003	-								●			D29 D35
		120700E005	E005	-									●		
		120700K15015	K15015	-					●						
		120700S01525	S01525	-				●							
		120700S02025	S02025	-					●						
		120700T01020	T01020	-								●	●	●	
		120700T02025	T02025	-		●	●		●	●	●				
		RNGN 150700S01525	S01525	-				●							
		150700S02025	S02025	-					●						D29
		150700T02025	T02025	-		●									
		RNGN 190700E003	E003	-								●			-
		190700E005	E005	-									●		
		190700T01020	T01020	-								●	●		
		RNGN 250700E003	E003	-								MTO			
		250700E005	E005	-									□		
		250700T01020	T01020	-								MTO	□		

*For cutting edge "E" and "K", please refer to the table below.

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
E	R-honed Cutting Edge	E005	R0.05mm Honed
K	Double Chamfered Cutting Edges	K15015	1.5mm x 15° Chamfered Cutting Edge

· Note : Symbol "K" describe only the largest chamfer width and its angle.

Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog MTO : Made to order

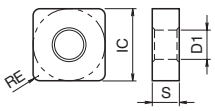
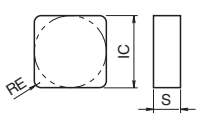
90° Square / Negative

(mm)

Description	IC	S	D1
SN_A1204_	12.70	4.76	5.16
SNGN1204_			-
SNGN1207_		7.94	

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01225	0.12mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01215	0.12mm x 15° Chamfered Cutting Edge

K	Gray Cast Iron (With Scale)	✱ ◔
	Gray Cast Iron (Without Scale)	● ◔ ◔ ◔ ◔ ●
	Nodular Cast Iron (With Scale)	◔
	Nodular Cast Iron (Without Scale)	◔
S	Heat-resistant Alloys	✱ ●
H	Hard Materials	○ ● ◔

Insert		Description		Edge Prep.	Dimension (mm) RE	Aluminum Oxide Ceramic KA30	A65	KT66	PVD Coated Ceramic A66N	MEGACOAT Ceramic PT600M	Silicon Nitride Ceramic KS6050	Si3N4 Coated Silicon Nitride Ceramic CS7050	SiAlON Ceramic KS6030	KS6040	Honeycomb structure Ceramic CF1	See Page for Applicable Toolholders
		SNGA	120408S01525 120412S01525	S01525	0.8 1.2				● ●							D14 D15 F75
		SNGA	120408S02025 120412S02025	S02025	0.8 1.2					● ●						
		SNGA	120408T02025 120412T02025 120416T02025	T02025	0.8 1.2 1.6		● ●	● ●		● ● ●	● ● ●	● ● ●				
		SNMA	120408S03030	S03030	0.8				●							
		SNGN	120408S01025 120412S01025 120416S01025 120420S01025	S01025	0.8 1.2 1.6 2.0	● ● ● ●										D27 D36 D37 F81
		SNGN	120408S01525 120412S01525 120416S01525	S01525	0.8 1.2 1.6				● ● ●							
		SNGN	120408S02025 120412S02025 120416S02025	S02025	0.8 1.2 1.6					● ● ●						
		SNGN	120416S03030	S03030	1.6				●							
		SNGN	120408T00520	T00520	0.8		●									
		SNGN	120408T01020 120412T01020 120416T01020 120420T01020	T01020	0.8 1.2 1.6 2.0									● ●	● ● ● ●	
		SNGN	120404T02025 120408T02025 120412T02025 120416T02025 120420T02025	T02025	0.4 0.8 1.2 1.6 2.0		● ● ● ● ●	 ● ● 		● ● ● ●	 ● ● ●	 ● ● ●		● □		
		SNGN	120708S01025 120712S01025 120716S01025	S01025	0.8 1.2 1.6	● ● ●										
		SNGN	120704S01525 120708S01525 120712S01525 120716S01525 120720S01525	S01525	0.4 0.8 1.2 1.6 2.0				● ● ● ● ●							
		SNGN	120708S02025 120712S02025 120716S02025 120720S02025	S02025	0.8 1.2 1.6 2.0					● ● ● ●						
		SNGN	120708T01020 120712T01020 120716T01020 120720T01020	T01020	0.8 1.2 1.6 2.0										● ● ● ●	

● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

90° Square / Negative

(mm)

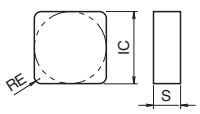
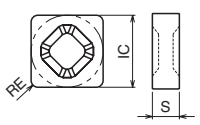
Description	IC	S	D1
SN_N1207_	12.70	7.94	-
SNGN1507_	15.875	7.94	

(mm)

Description	IC	S	D1
SNGX1207_	12.70	7.94	-
SNGX1507_	15.875	7.94	

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01225	0.12mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01215	0.12mm x 15° Chamfered Cutting Edge

K	Gray Cast Iron (With Scale)	✱ ◯
	Gray Cast Iron (Without Scale)	◯ ◯ ●
	Nodular Cast Iron (With Scale)	◯
	Nodular Cast Iron (Without Scale)	◯
S	Heat-resistant Alloys	✱
H	Hard Materials	●

Insert		Description		Edge Prep.	Dimension (mm) RE	Aluminum Oxide Ceramic KA30	A65	KT66	PVD Coated Ceramic A66N	MEGACOAT Ceramic PT600M	Silicon Nitride Ceramic KS6050	Si3N4 Coated Silicon Nitride Ceramic CS7050	SiAlON Ceramic KS6030	KS6040	Honeycomb structure Ceramic CF1	See Page for Applicable Toolholders
		SNGN	120704T02025 120708T02025 120712T02025 120716T02025 120720T02025	T02025	0.4 0.8 1.2 1.6 2.0		● ● ● ● ●			● ● ● ● ●	 ● 	 ● 		 		D27 D36 D37 F81
		SNMN	120716T02025	T02025	1.6		●									
		SNGN	150712T02025 150716T02025	T02025	1.2 1.6		● ●			● 						D27
		SNGX	120712T01020 120716T01020	T01020	1.2 1.6									◯ ◯		D32 D33
		SNGX	120712T02025 120716T02025	T02025	1.2 1.6						◯ ◯	◯ ◯		◯ ◯		F82
		SNGX	150716T02025	T02025	1.6						◯					D32 D33

Inserts are sold in 10 piece boxes

● : Std. Item ◯ : Check Availability

60° Triangle / Negative

(mm)

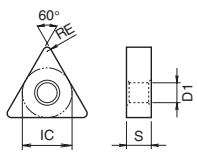
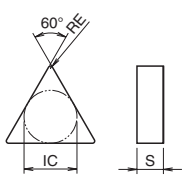
Description	IC	S	D1
TNGA 1604_	9.525	4.76	3.81
TNGN 1103_	6.35	3.18	-

(mm)

Description	IC	S	D1
TNGN 1604_	9.525	4.76	-
1607_		7.94	

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge

		Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	Si3N4 Coated Silicon Nitride Ceramic	SiAlON Ceramic		Honeycomb structure Ceramic
K	Gray Cast Iron (With Scale)						✱	◔			
	Gray Cast Iron (Without Scale)	●		◔		◔	◔	●			
	Nodular Cast Iron (With Scale)							◔			
	Nodular Cast Iron (Without Scale)							◔			
S	Heat-resistant Alloys										
H	Hard Materials				○	●					

Insert		Description		Edge Prep.	Dimension (mm) RE	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	See Page for Applicable Toolholders
		TNGA	160408S01025	S01025	0.8	●										D16 D17 F66 F76 F77
		TNGA	160404S01525 160408S01525 160412S01525	S01525	0.4 0.8 1.2				● ● ●							
		TNGA	160404S02025 160408S02025 160412S02025	S02025	0.4 0.8 1.2					● ● ●						
		TNGA	160408S03030	S03030	0.8				●							
		TNGA	160408T00520	T00520	0.8	●										
		TNGA	160404T02025 160408T02025 160412T02025	T02025	0.4 0.8 1.2		● ●	● ● ●		● ● ●	● ●	● ●				
		TNGN	110304T00520 110308T00520 110312T00520	T00520	0.4 0.8 1.2		● ● ●			● ● □						D38 F83
		TNGN	160404S01025 160408S01025 160412S01025 160416S01025 160420S01025	S01025	0.4 0.8 1.2 1.6 2.0	● ● ● ● ●										D28
		TNGN	160404S01525 160408S01525 160412S01525	S01525	0.4 0.8 1.2				● ● ●							
		TNGN	160404S02025 160408S02025 160412S02025	S02025	0.4 0.8 1.2					● ● ●						
		TNGN	160404T00520 160408T00520 160412T00520	T00520	0.4 0.8 1.2	●	● ●									
		TNGN	160404T02025 160408T02025 160412T02025	T02025	0.4 0.8 1.2		● ● ●	 ● 		● ● ●	 ●					
		TNGN	160704T02025 160708T02025 160712T02025 160716T02025 160720T02025	T02025	0.4 0.8 1.2 1.6 2.0		● ● ● ● ●			● ● ●						

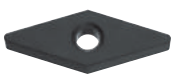
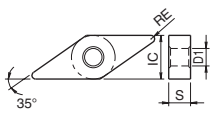
35˚ Rhombic / Negative

(mm)

Description	IC	S	D1
VN_A1604_	9.525	4.76	3.81

Edge Prep.				
Symbol	Cutting Edge Spec.	Example		
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge	
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge	

		KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1
K	Gray Cast Iron (With Scale)										
	Gray Cast Iron (Without Scale)			◔		●					
	Nodular Cast Iron (With Scale)										
	Nodular Cast Iron (Without Scale)										
S	Heat-resistant Alloys										
H	Hard Materials				○	●					

Insert	Description	Edge Prep.	Dimension (mm) RE	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	See Page for Applicable Toolholders
	**VNGA 160404S01525**	**S01525**	0.4				●							**D18 D19 D20**
	VNGA 160408S01525		0.8				●							
	**VNGA 160404S02025**	**S02025**	0.4					●						
	VNGA 160408S02025		0.8					●						
	VNGA 160404T02025	**T02025**	0.4		●	●		●						
	VNGA 160408T02025		0.8		●	●		●						
	VNGA 160412T02025		1.2					●						
	VNMA 160408S01525	**S01525**	0.8				●							

Inserts are sold in 10 piece boxes

● : Std. Item

Positive

(mm)

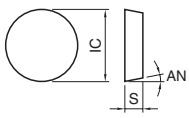
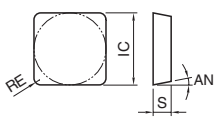
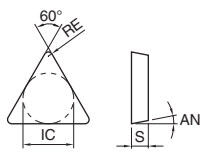
Description	IC	S	AN
RPGN 0903_	9.525	3.18	11°
RPGN 1204_	12.70	4.76	
SPGN 0903_	9.525	3.18	
SPGN 1203_	12.70	3.18	

(mm)

Description	IC	S	AN
TBGN 0601_	3.97	1.59	5°
TCGN 1604_	9.525	4.76	7°
TPGN 0902_	5.56	2.38	11°
1103_	6.35	3.18	
1603_	9.525		

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge

K	Gray Cast Iron (With Scale)	○
	Gray Cast Iron (Without Scale)	●
	Nodular Cast Iron (With Scale)	○
	Nodular Cast Iron (Without Scale)	●
S	Heat-resistant Alloys	● ✖
H	Hard Materials	○ ●

Insert		Description		*Edge Prep.	Dimension (mm) RE	Aluminum Oxide Ceramic KA30	A65	KT66	PVD Coated Ceramic A66N	MEGACOAT Ceramic PT600M	Silicon Nitride Ceramic KS6050	CVD Coated Silicon Nitride Ceramic CS7050	SiAlON Ceramic KS6030	KS6040	Honeycomb structure Ceramic CF1	See Page for Applicable Toolholders
		RPGN	090300E003	E003	-							●				-
			090300E005	E005	-								□			
			090300T01020	T01020	-							●	□			
		RPGN	120400E003	E003	-							●				
			120400E005	E005	-								●			
			120400T01020	T01020	-							●	●			
		SPGN	090308T00820	T00820	0.8		●			●						E44 F62
		SPGN	120308S00820	S00820	0.8				●	●						
		SPGN	120308T00820 120312T00820	T00820	0.8 1.2		● ●									
		TBGN	060104S00820 060108S00820	S00820	0.4 0.8				● ●	● ●						-
		TCGN	160404T00820 160408T00820	T00820	0.4 0.8		□ ●									
		TPGN	090204T00820 090208T00820	T00820	0.4 0.8			●		● ●						F63
		TPGN	110304S00820 110308S00820	S00820	0.4 0.8				● ●	● ●						E45 F63
		TPGN	110304T00820 110308T00820	T00820	0.4 0.8		● ●			● ●						
		TPGN	160304S00820 160308S00820 160312S00820	S00820	0.4 0.8 1.2				● ● ●	● ●						
		TPGN	160304T00820 160308T00820 160312T00820	T00820	0.4 0.8 1.2		● ● ●			● ●						

*For cutting edge "E", please refer to the table below.

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
E	R-honed Cutting Edge	E005	R0.05mm Honed

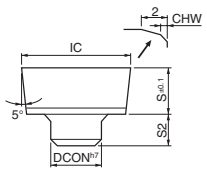
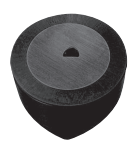
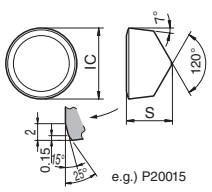
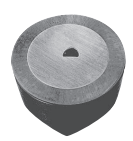
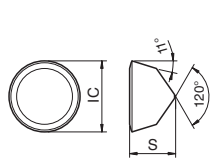
● : Std. Item □ : Deleted from the next catalog

Inserts are sold in 10 piece boxes

Inserts for Hardened Roll

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge

		KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1
K	Gray Cast Iron (With Scale)					✱					
K	Gray Cast Iron (Without Scale)										
K	Nodular Cast Iron (With Scale)										
K	Nodular Cast Iron (Without Scale)										
S	Heat-resistant Alloys					◕			◕	✱	◔
H	Hard Materials			◔		◕					

Insert		Description		*Edge Prep.	Dimension (mm) IC	DCON	S	S2	CHW	See Page for Applicable Toolholders
		RBG	12K20003	K20003	12	6	6	3	0.2	-
			16K20003	K20003	16	8	8	5	0.2	
			20K20003	K20003	20	10	10	5	0.3	
		RCGX	060600E003	E003	6.35	-	6.35	-	-	-
			060600E005	E005						
			060600T01020	T01020						
			090700E003	E003	9.525	-	8	-	-	
			090700E005	E005						
			090700P20015	P20015						
			090700S01020	S01020						
			090700T01020	T01020						
			120700E003	E003	12.7	-	8	-	-	
			120700E005	E005						
			120700P20015	P20015						
			120700S01020	S01020						
			120700T01020	T01020						
		RPGX	060600E003	E003	6.35	-	6.35	-	-	-
			060600E005	E005						
			060600T01020	T01020						
			090700E003	E003	9.525	-	8	-	-	
			090700E005	E005						
			090700T01020	T01020						
			120700E003	E003	12.7	-	8	-	-	
			120700E005	E005						
			120700T01020	T01020						

*For cutting edge "E", "K" and "P" please refer to the table below.

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
E	R-honed Cutting Edge	E005	R0.05mm Honed
K	Double Chamfered Cutting Edges	K20003	2.00mm x 3° Chamfered Cutting Edge
P	Double Chamfered and Honed Cutting Edge	P20015	2.00mm x 15° Chamfered and Honed Cutting Edge

· Note : Symbol "K" and "P" describe only the largest chamfer width and its angle.

RBG Inserts are sold in 1 piece boxes

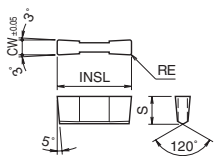
Inserts are sold in 10 piece boxes

● : Std. Item □ : Deleted from the next catalog

Grooving Inserts

Edge Prep.					
Symbol	Cutting Edge Spec.	Example			
S	Chamfered and Honed Cutting Edge	S01525	0.15mm x 25° Chamfered and Honed Cutting Edge		
T	Chamfered Cutting Edge	T01525	0.15mm x 25° Chamfered Cutting Edge		

		Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitride Ceramic	SiAlON Ceramic		Honeycomb structure Ceramic	
		KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	
K	Gray Cast Iron (With Scale)											
K	Gray Cast Iron (Without Scale)		○			●						
K	Nodular Cast Iron (With Scale)											
K	Nodular Cast Iron (Without Scale)											
S	Heat-resistant Alloys											
H	Hard Materials				○	●						

Insert	Description		Edge Prep.	Dimension (mm) CW	RE	INSL	S	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	See Page for Applicable Toolholders
		GH 4020-05	S01020	4.0	0.5	20	7.5				●							G44 G66
		4020-05	T01020						●			●						
		5020-05	S01020	5.0							●							
		5020-05	T01020						●			●						
		6020-05	T01020	6.0					●			●						
		7020-05	T01020	7.0					●			●						

● : Std. Item

Inserts are sold in 10 piece boxes