Turning Indexable Inserts

B

B1~B107

Turning Indexable Inserts Identification System

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

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

(1) Shape Symbol

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

(2) Relief Angle Symbol

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

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

(3) Tolerance Symbol

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

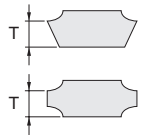
(4) Hole / Chipbreaker Symbol

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

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

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

(8) Manufacturer's Option

Hand Symbol
Chipbreaker
Symbol, etc.

Positive Inserts Identification System

CCGT060201MER-U

- Minus tolerance for Corner-R(rε)
- With Honing
- Insert Hand
- Chipbreakers

CCGT060201MFP-GF

- Minus tolerance for Corner-R(rε)
- Sharp edge
- Polished
- Chipbreakers

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

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

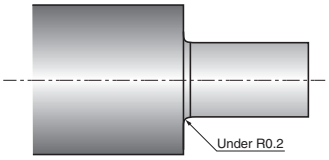
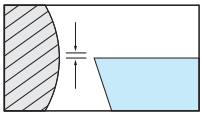


Fig.1 Example of a specified corner-R in the drawing

Features of insert with tolerance symbol of "E" Class

"E" Class Turning Insert

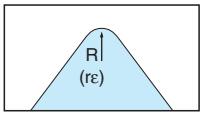
· Accuracy of index position after insert replacement



Thickness Tolerance

±0.13mm → ±0.025mm

(Conventional)



Corner-R (rε) Tolerance

±0.1mm → ±0.02mm

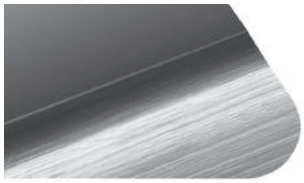
(Conventional)

High Quality Ground Insert "Super Fine"

· Applicable for mechatronics, electronics and high precision machined parts
· Sub-micron accuracy possible

High Quality Ground Insert

· Reduced micro chipping during edge grounding
· Less adhesion · Long tool life

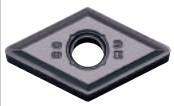


Insert Color

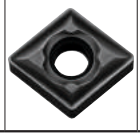
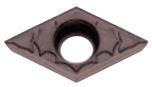
Cermet, MEGACOAT NANO Cermet, MEGACOAT Cermet and PVD Coated Cermet

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

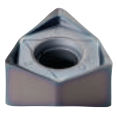
MEGACOAT (PVD Coated Carbide)

Grades	MEGACOAT						
	PR1210	PR1215	PR1225	PR1230	PR1305	PR1310	PR1325
Insert Color							

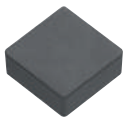
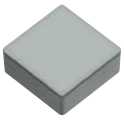
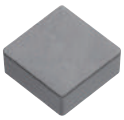
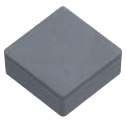
CVD Coated Carbide and PVD Coated Carbide

Grades	CVD Coated Carbide						PVD Coated Carbide								
	NEW CA420M	CA45 series	CA40/CA41 series	NEW CA510 CA515 CA525 CA530	CA55 series	CA65 series	PR660	PR830	PR905	PR915	PR930	PR1005	PR1025	PR1115	PR1125
Insert Color															

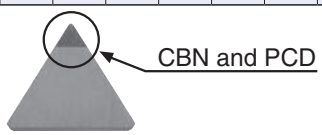
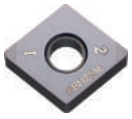
MEGACOAT (PVD Coated Carbide)

Grades	MEGACOAT NANO			
	PR1425	PR1510	PR1525	PR1535
Insert Color	NEW 			

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	NEW KS6030	KS6040	CF1
Insert Color										

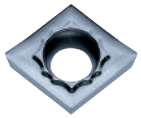
CBN and PCD

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

DLC Coated Carbide

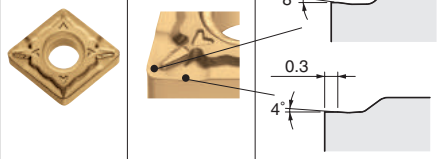
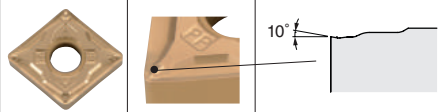
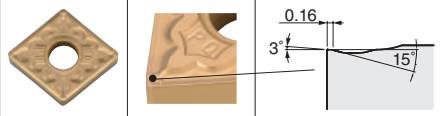
Grades	DLC Coated Carbide
	NEW PDL025
Insert Color	

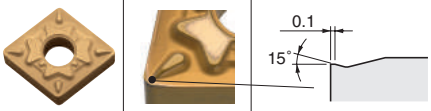
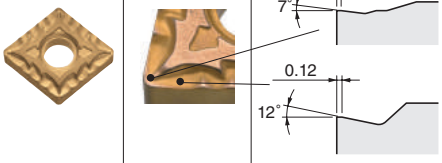
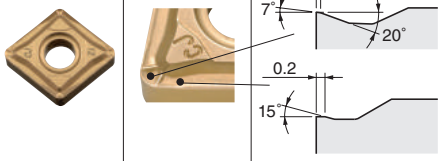
Carbide

Grades	Carbide			
	GW15	GW25	KW10	SW05
Insert Color				

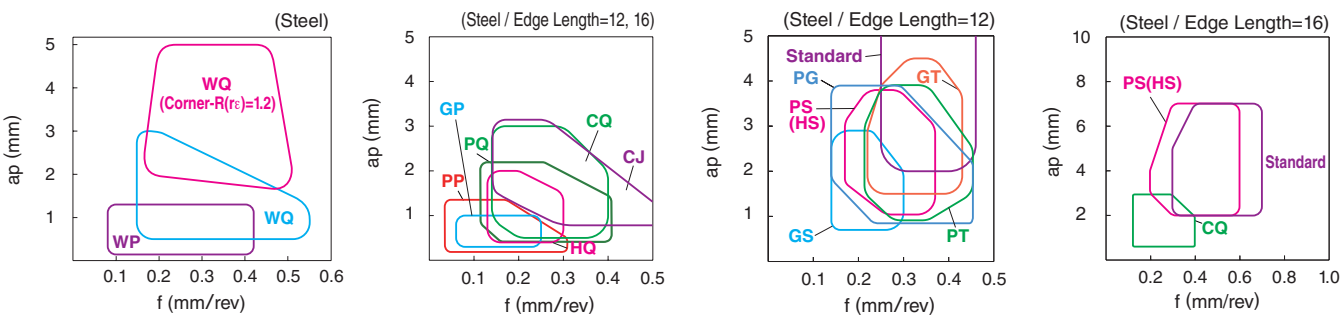
Steel

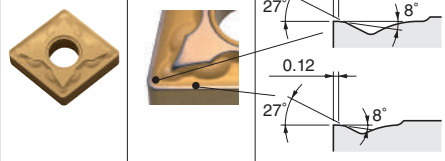
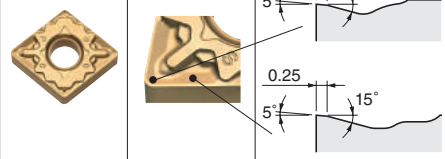
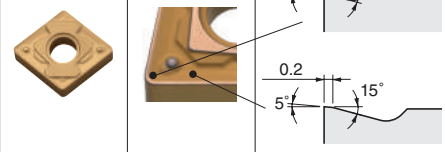
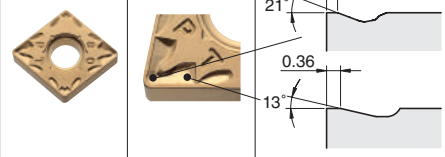
1 Molded Chipbreaker

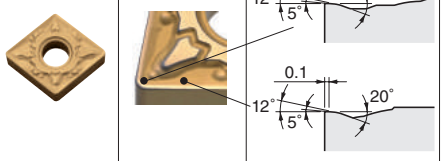
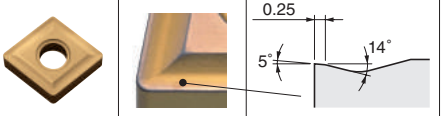
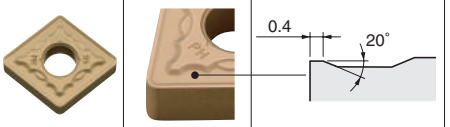
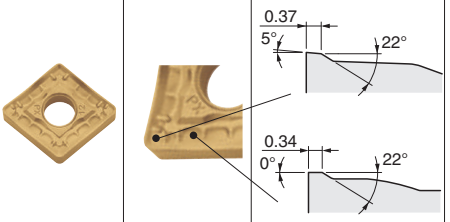
Cutting Range	Name	Design	Advantages
Finishing (With Wiper Edge)	WP		Wiper insert. Good chip control at small machining.
Finishing-Medium (With Wiper Edge)	WQ		Wiper insert. Double feed rate possible while maintaining a smooth finish. High efficiency and good chip control.
Finishing	PP		3-step dot structure 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.

Cutting Range	Name	Design	Advantages
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.
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.

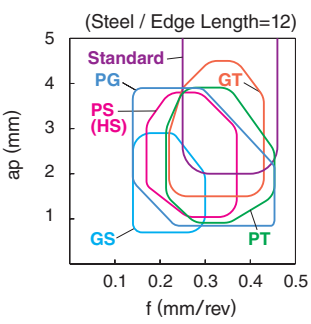
Applicable Chipbreaker Range (ap indicates radius)

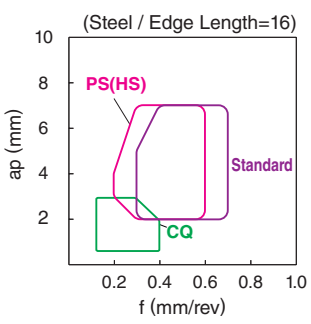


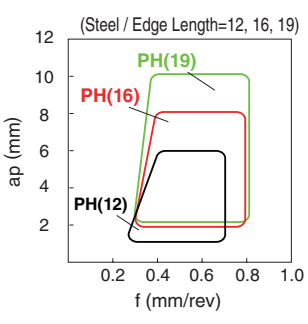
Cutting Range	Name	Design	Advantages
Medium - Roughing	GS		Strong edge chipbreaker. Stable for continuous machining and light interrupted machining.
Medium - Roughing	PS		General purpose chipbreaker. More stable due to large contact surface.
Medium - Roughing	HS		General purpose chipbreaker. Applicable to copying.
Medium-Roughing / High Feed Rate	PT		Low cutting force at high feed machining. Land support structure.

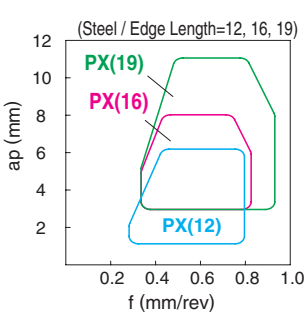
Cutting Range	Name	Design	Advantages
Medium-Roughing / High Feed Rate	GT		Strong edge chipbreaker. Wide land design and smooth chip control even at high feed rate machining.
Roughing	Standard (Without Indication)		Low cutting force and applicable to large ap roughing.
Roughing	PH		For roughing of steel. Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge.
Single Sided Roughing (High Feed Rate)	PX		Roughing and high feed rate operation. Low cutting force chipbreaker.

Applicable Chipbreaker Range (ap indicates radius)



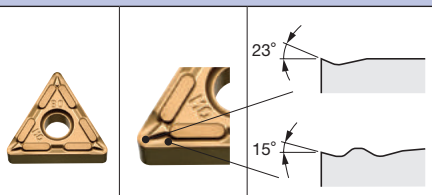
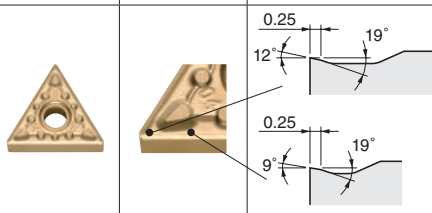
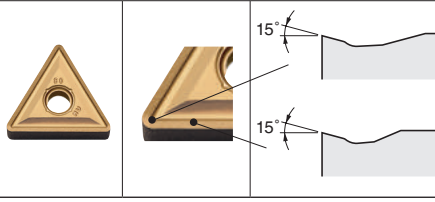


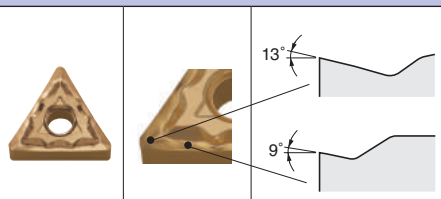
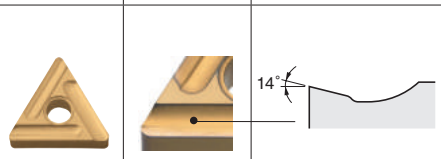




Chipbreaker Selection (Negative Inserts)

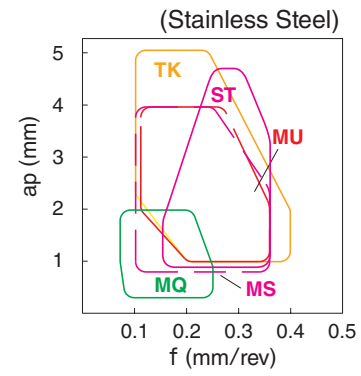
Stainless Steel / Heat-Resistant Alloys / Titanium Alloy

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.

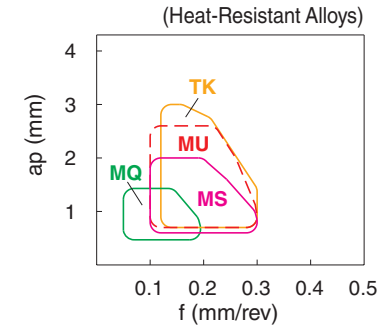
Stainless Steel

● Applicable Chipbreaker Range (ap indicates radius)



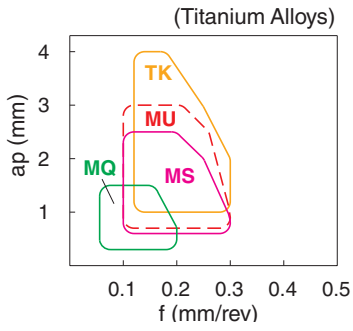
Heat-Resistant Alloys

● Applicable Chipbreaker Range (ap indicates radius)

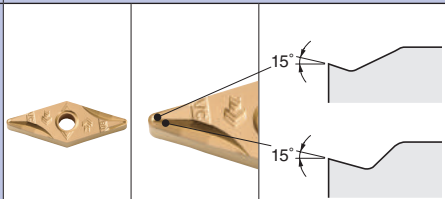


Titanium Alloys

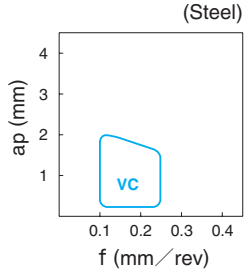
● Applicable Chipbreaker Range (ap indicates radius)



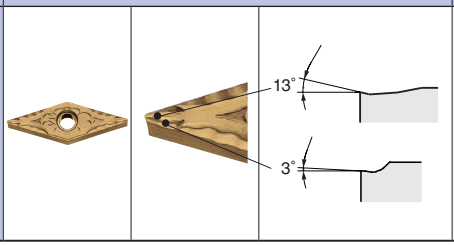
Steel (Copying / Undercutting , Varied ap)

Cutting Range	Name	Design	Advantages
Finishing-Medium	VC		Chipbreaker with hand for copying. Excellent chip control in a wide range of machinig applications.

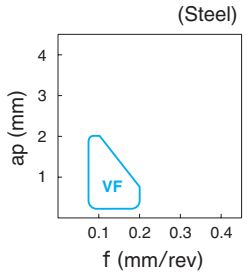
● Applicable Chipbreaker Range (ap indicates radius)



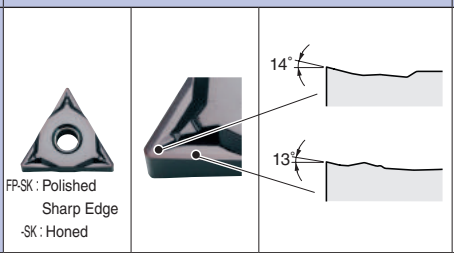
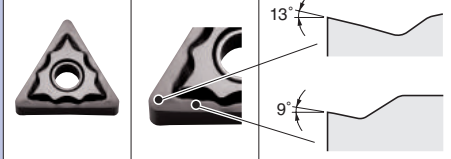
Steel (Copying / Undercutting , Varied ap)

Cutting Range	Name	Design	Advantages
Finishing-Medium	VF		Good chip control for varied ap such as copying and undercutting.

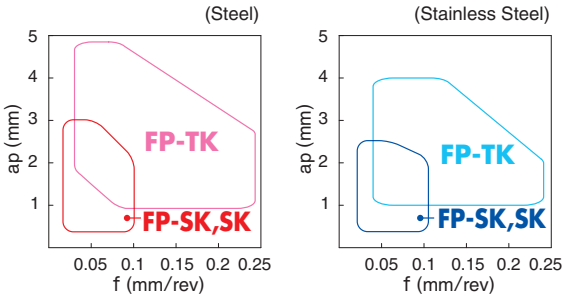
● Applicable Chipbreaker Range (ap indicates radius)



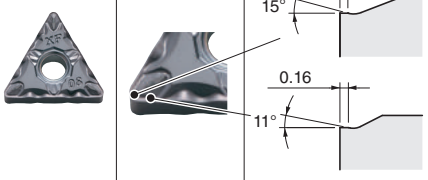
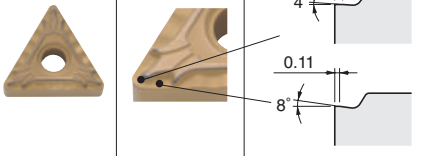
Steel / Stainless Steel (for automatic lathe)

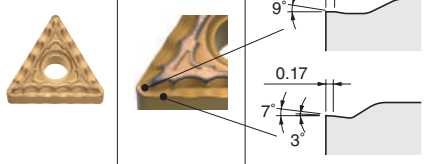
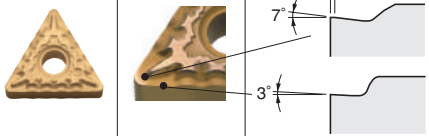
Cutting Range	Name	Design	Advantages
Finishing-Medium	SK	 FP-SK : Polished Sharp Edge -SK : Honed	For finishing to medium machining in automatic lathes. Sharp cutting performance equivalent to positive inserts. 2-step dot design provides reliable chip control at various ap.
Medium-Roughing	FP-TK		For 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.

● Applicable Chipbreaker Range (ap indicates radius)



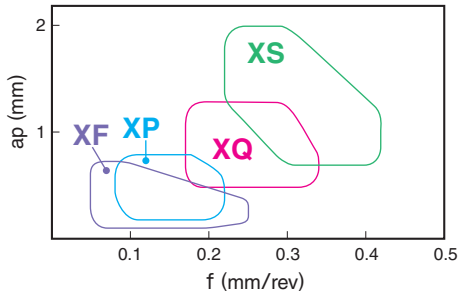
Low Carbon Steel (Pipe / Rolled Plate / Rolled Steel)

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.

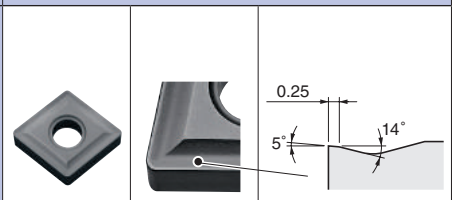
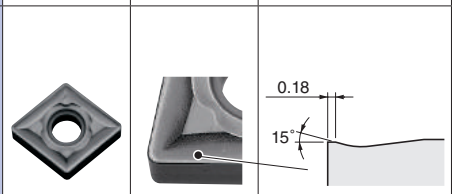
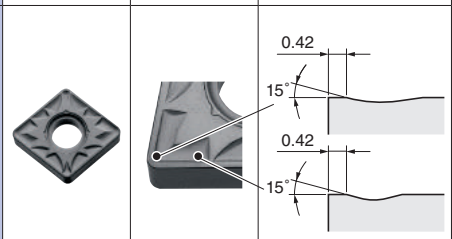
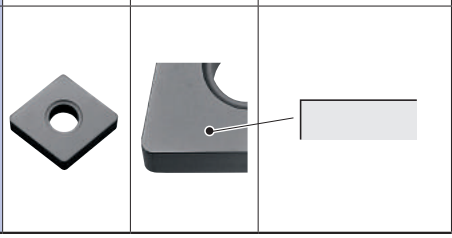
● Applicable Chipbreaker Range (ap indicates radius)

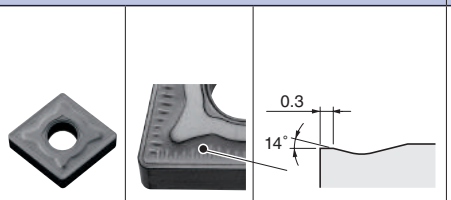
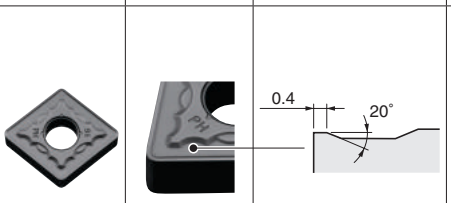
(Low Carbon Steel)



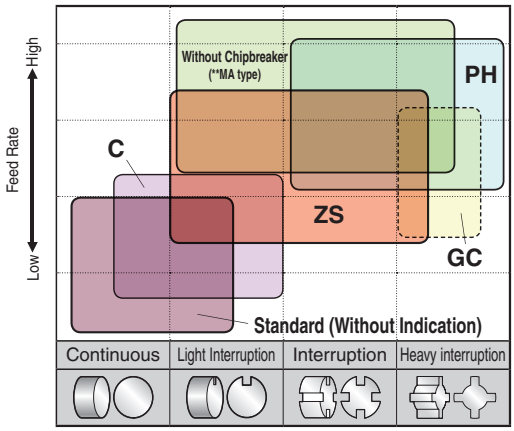
Chipbreaker Selection (Negative Inserts)

Cast Iron

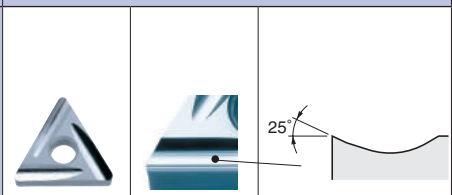
Cutting Range	Name	Design	Advantages
Sharp Cutting Oriented	Standard (Without Indication)		Standard chipbreaker for continuous to light interrupted machining of cast iron. (Low cutting force)
	C		High feed rate chipbreaker for continuous to light interrupted machining of cast iron.
	ZS		Standard chipbreaker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

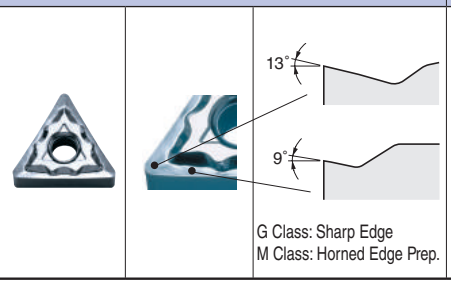
Cutting Range	Name	Design	Advantages
Stability Oriented	GC		Chipbreaker for heavy interrupted machining of cast iron. (Tough edge chipbreaker)
	PH		Chipbreaker for roughing of cast iron. Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge.

Chipbreaker Selection (Negative Inserts)

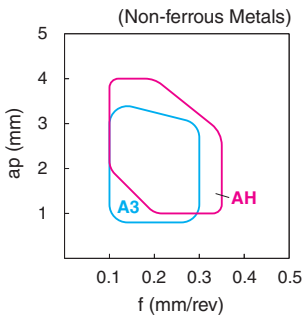


Non-ferrous Metals

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)

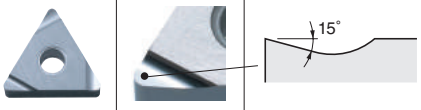
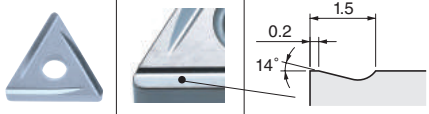
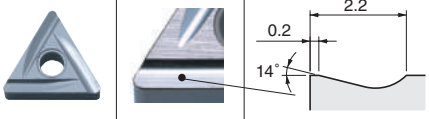


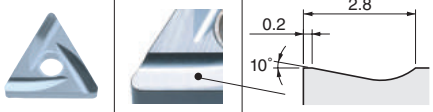
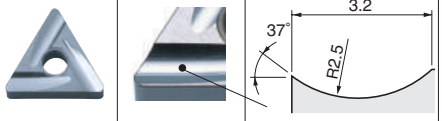
A3 Chipbreaker	
	ap=2mm f=0.2mm/rev
	ap=2mm f=0.3mm/rev

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

Steel

2 Ground Chipbreaker

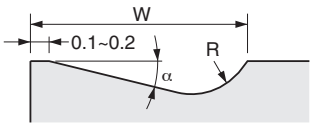
Cutting Range	Name	Design	Advantages
Finishing	S		Sharp edge and less cutting force. Good chip control and smooth chip evacuation.
Finishing-Medium	B		Suitable for general purpose machining at feed rate 0.15 to 0.25mm/rev.
Medium - Roughing	C		Suitable for general purpose machining at feed rate 0.20 to 0.35mm/rev.

Cutting Range	Name	Design	Advantages
Roughing	D		Suitable for general purpose machining at feed rate 0.30 to 0.45mm/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

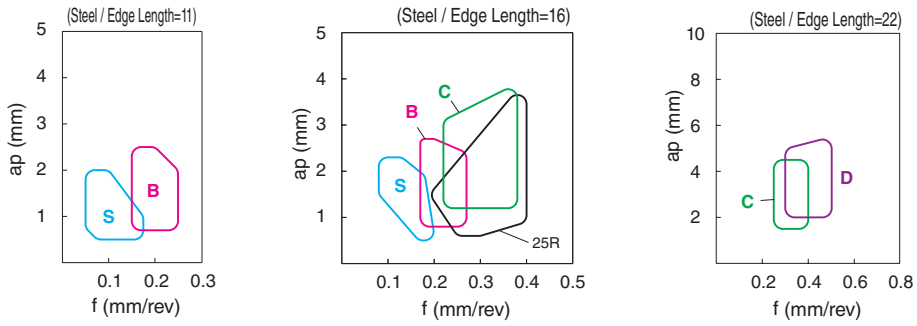
(1) Lower cutting force and improve edge
(2) Improved adhesion resistance
(3) Improved dimension accuracy and finishing surface accuracy
(4) Controlled chip evacuation direction

Specification of B, C, D and parallel ground chipbreaker



Insert Type	Size	Chipbreaker Name	W	α	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
	16, 22	D	2.8	10°	1.5
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

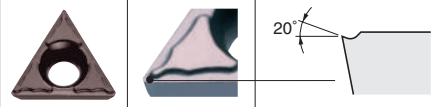
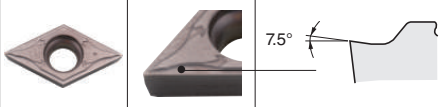
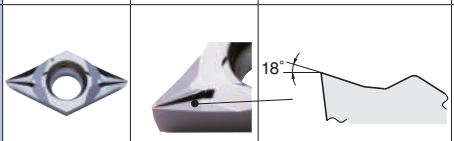
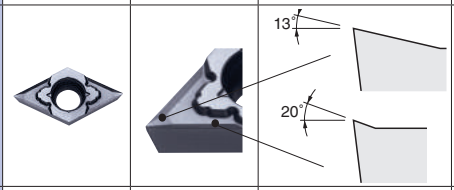
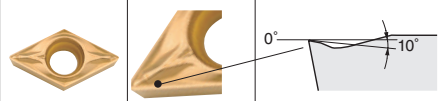
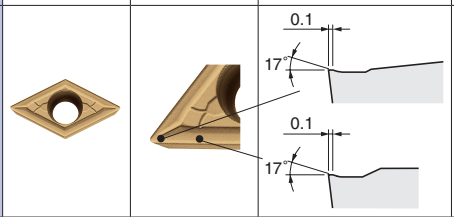
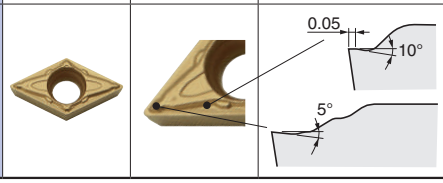
Applicable Chipbreaker Range (ap indicates radius)

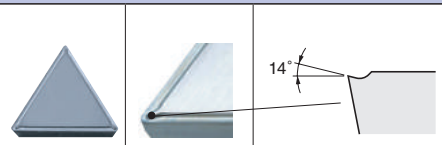
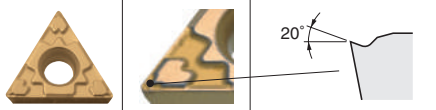
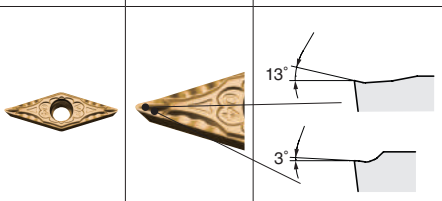
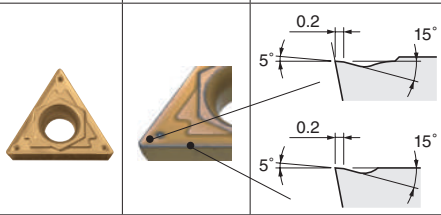
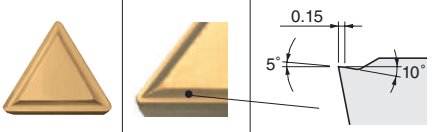
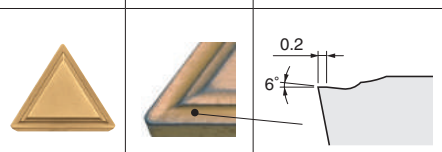


Chipbreaker Selection (Positive Insert)

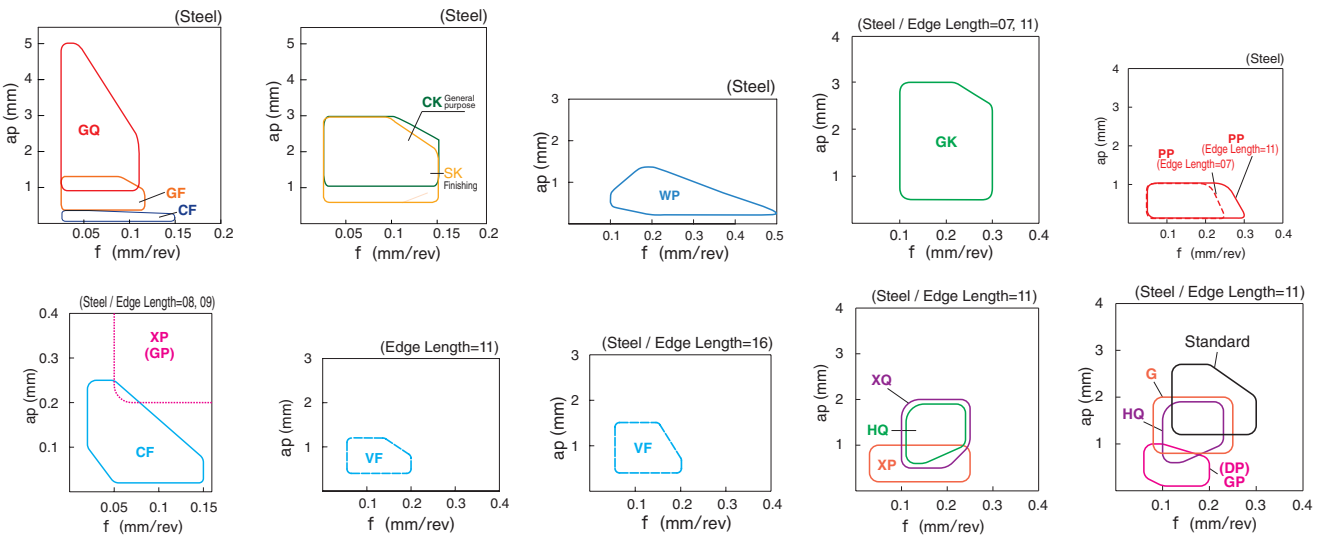
Steel

1 Molded Chipbreaker

Cutting Range	Name	Design	Advantages
Minute ap	CF		Available for minute ap (0.02 to 0.2mm) finishing.
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 at high feed machining Reduces surface finish galling
Finishing-Medium	GK		Good chip evacuation at wide range by breaker dot and wide chip pocket.
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.

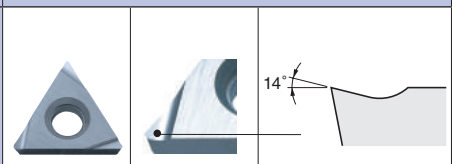
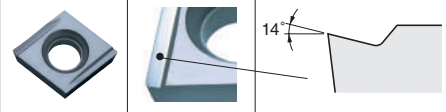
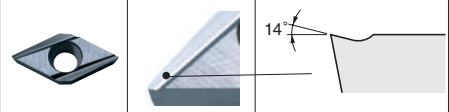
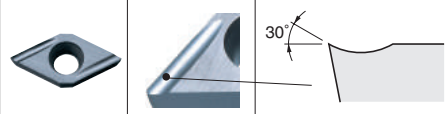
Cutting Range	Name	Design	Advantages
Finishing	DP		Consistent chip breaking performance for finishing.
Finishing	GP		Good chip control.
Finishing	VF		Good chip control for varied ap such as copying and undercutting.
Finishing-Medium	HQ		General purpose chipbreaker for medium machining.
Medium	G		Chipbreaker for short chips at medium machining.
Medium	Standard (Without Indication)		Strong edge chipbreaker for medium machining range.

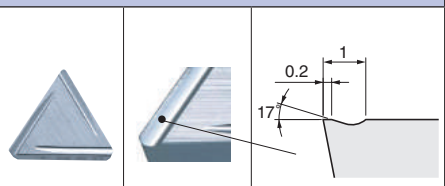
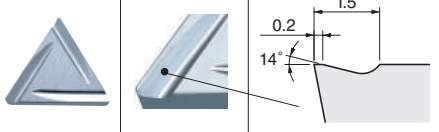
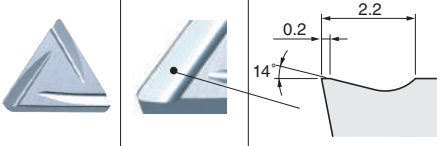
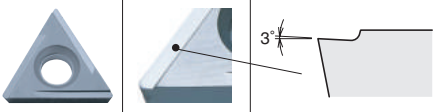
Applicable Chipbreaker Range (ap indicates radius)



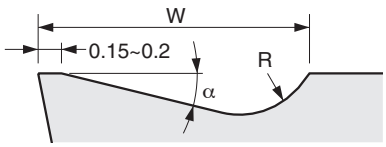
Steel

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.
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.

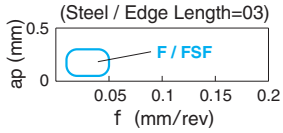
Cutting Range	Name	Design	Advantages
Finishing	A		Large rake angle and low cutting force. Narrow chipbreaker width and consistent chip control.
Finishing-Medium	B		General purpose chipbreaker for medium machining. Good balance between chip control and sharp cutting.
Medium	C		Applicable to high load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

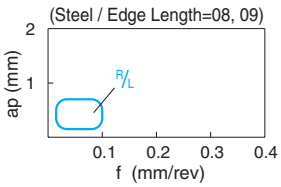
Specification of A, B, C and parallel ground chipbreaker

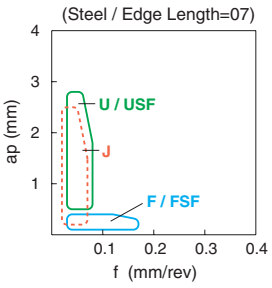


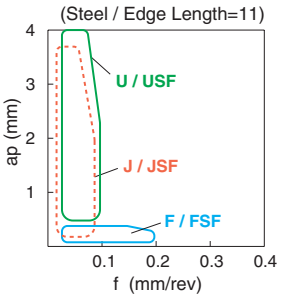
Insert Type	Size	Chipbreaker Name	W	α	R
TPGR	11	A	1.0	17°	0.5
	11,16	B	1.5	14°	0.5
	16	C	2.2	14°	1.0
SPGR	09	Without Indication (Similar to B)	1.5	14°	0.5
	12	Without Indication (Similar to C)	2.2	14°	1.0

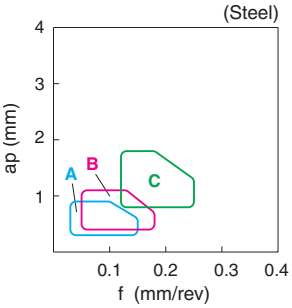
Applicable Chipbreaker Range (ap indicates radius)

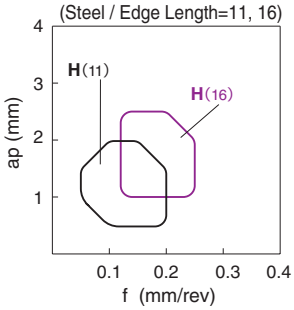






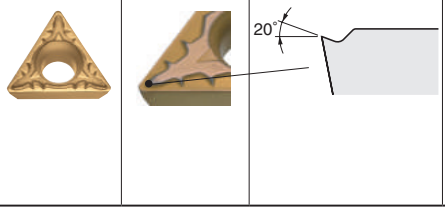


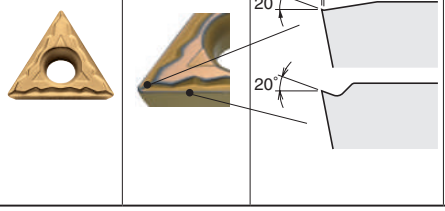




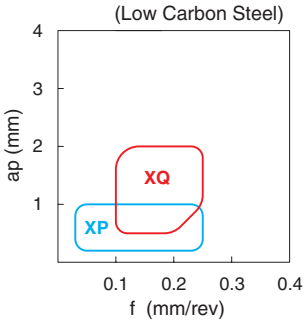
Chipbreaker Selection (Positive Insert)

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

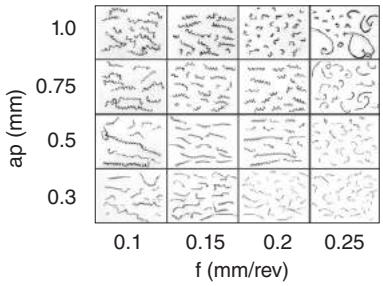
Cutting Range	Name	Design	Advantages
Finishing	XP		Consistent chip breaking performance even for low carbon steel and sticky material.

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

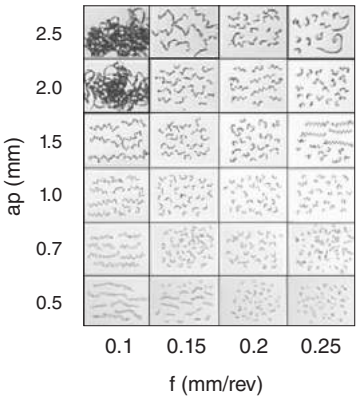
Applicable Chipbreaker Range (ap indicates radius)



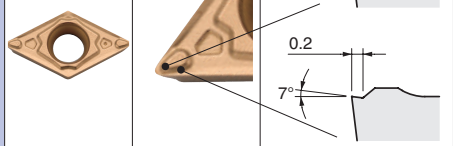
XP Chipbreaker



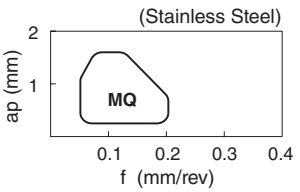
XQ Chipbreaker



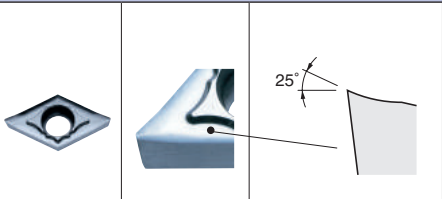
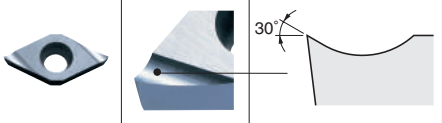
Stainless Steel

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.

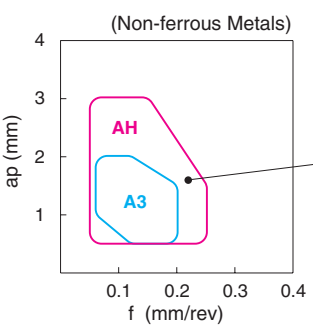
Applicable Chipbreaker Range (ap indicates radius)



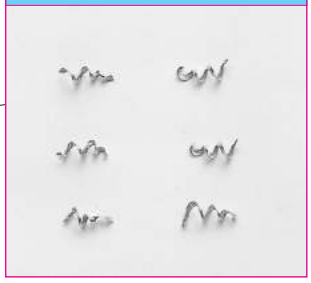
Non-ferrous Metals

Cutting Range	Name	Design	Advantages
Finishing-Medium	AH		Positive chip groove and good chip control with low cutting force. Polished surface reduces adhesion.
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 under 45HRC)

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(rε)

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 Ref. to Page **B3** for insert color.

Applicable chipbreaker range map No.

B14 Inserts are sold in 10 piece boxes

Purchase unit

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

Stock

Applicable Toolholder

Applicable chipbreaker range map No.

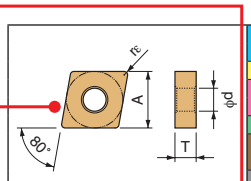
Turning Indexable Inserts

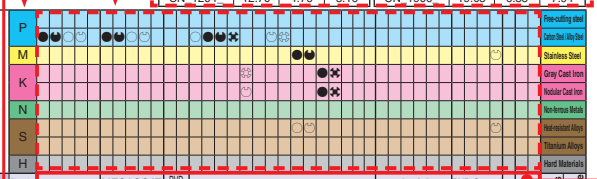
How to read pages of “Turning Inserts” B13

80° Rhombic / Negative with Hole

(mm)

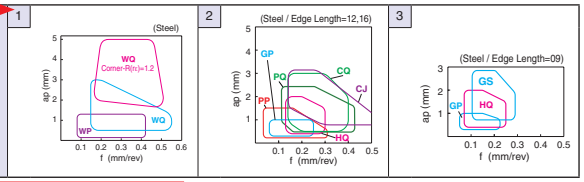
Description	A	T	φd	Description	A	T	φd
CN_0904_	9.525	4.76	3.81	CN_1606_	15.875	6.35	6.35
CN_1204_	12.70	4.76	5.16	CN_1906_	19.05	6.35	7.94





Insert	Description	Dimension (mm) rε	Cermet				MEGACOAT Cermet		PVD Coated Cermet	CVD Coated Carbide														MEGACOAT MEGACOAT NANO				PVD Coated Carbide			DLC Carbide		Ref. to Page for Applicable Toolholder	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA530	CA4505	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4415	CA4420	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
With Wiper Edge	CNMG 120404WP	0.4	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	1
	CNMG 120408WP	0.8	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
With Wiper Edge	CNMG 120404WQ	0.4	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	1
	CNMG 120408WQ	0.8	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
	CNMG 120412WQ	1.2		●		○		●		●			○		●	●		●	●	●	●			●	●														
Finishing	CNMG 120402PP	0.2	●	●	●	○	●	●	●	●	○			●	●	●	●	●	●	●	●																	D8 F63 F67 F68	2
	CNMG 120404PP	0.4	●	●	●	○	●	●	●	●	○			●	●	●	●	●	●	●	●																		
	CNMG 120408PP	0.8	●	●	●	○	●	●	●	●	○			●	●	●	●	●	●	●	●																		
	CNMG 120412PP	1.2	●	●	●	○	●	●	●	●	○			●	●	●	●	●	●	●	●																		
Finishing	CNMG 090404GP	0.4		●			●	●		●			●		●	●		●	●	●	●																	D8 F68	3
	CNMG 090408GP	0.8		●			●	●		●			●		●	●		●	●	●	●																		
Finishing	CNMG 120402GP	0.2	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	2
	CNMG 120404GP	0.4	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
	CNMG 120408GP	0.8	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
Finishing-Medium	CNMG 120404PQ	0.4	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	2
	CNMG 120408PQ	0.8	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
	CNMG 120412PQ	1.2		●		○		●		●			○		●	●		●	●	●	●			●	●														
Finishing-Medium	CNMG 090404HQ	0.4		●			●	●		●			●		●	●		●	●	●	●																	D8 F68	3
	CNMG 090408HQ	0.8		●			●	●		●			●		●	●		●	●	●	●																		
Finishing-Medium	CNMG 120404HQ	0.4	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	
	CNMG 120408HQ	0.8	●	●	○		●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
	CNMG 120412HQ	1.2		●		○		●		●			○		●	●		●	●	●	●			●	●														
	CNGG 120408HQ	0.8																	●	●	●																		
	CNGG 120412HQ	1.2																	●	●	●																		
Finishing-Medium / Up Facing	CNMG 120404CQ	0.4	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																	D8 F63 F67 F68	2
	CNMG 120408CQ	0.8	●	●	●	○	●	●	●	●	○		○	●	●	●	●	●	●	●	●																		
	CNMG 120412CQ	1.2		●		○		●		●			○		●	●		●	●	●	●			●	●														
	CNMG 160608CQ	0.8																	●	●	●																	D8	
	CNMG 160612CQ	1.2																	●	●	●																		
Finishing-Medium / Up Facing	CNMG 120408CJ	0.8																	●	●	●																	D8 F63 F67 F68	
	CNMG 120412CJ	1.2																	●	●	●																		
Finishing-Medium / Up Facing	CNMG 160612CJ	1.2																	●	●	●																	D8	
	CNMG 160616CJ	1.6																	●	●	●																		

Applicable Chipbreaker Range
ap indicates radius



Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

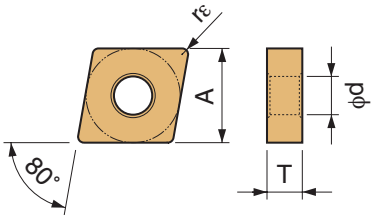
80° Rhombic / Negative with Hole

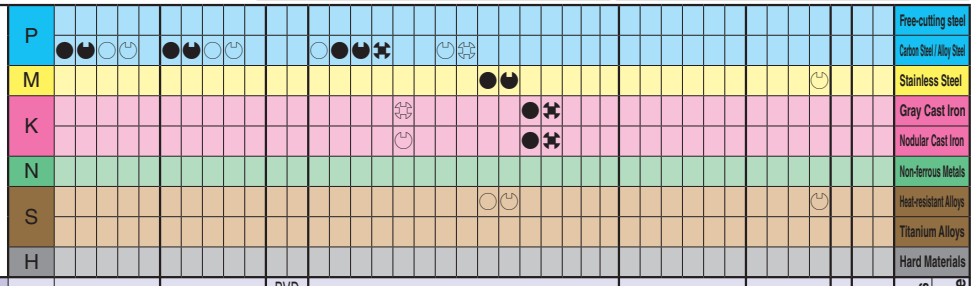
(mm)

Description	A	T	φd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



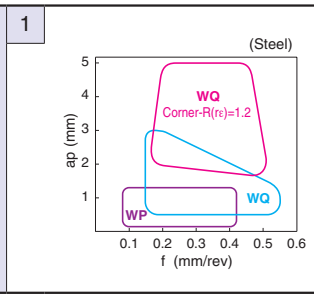


Insert		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	Finishing	CNMG 120404WP	0.4	●	●		○		●	●	●	○			○	●	●	●	●	●	●	●																							
		CNMG 120408WP	0.8	●	●		○		●	●	●	○			○	●	●	●	●	●	●	●																						D8 F63 F67 F68	1
With Wiper Edge	Finishing-Medium	CNMG 120404WQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●				●	●																		
		CNMG 120408WQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●				●	●																		
		CNMG 120412WQ	1.2		●		○		●						○	●	●	●	●	●	●	●				●	●																		
Finishing		CNMG 120402PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		CNMG 120404PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		CNMG 120408PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		CNMG 120412PP	1.2	●	●	●	○		●	●	●	○				●	●	●	●																										2
Finishing		CNMG 090404GP	0.4		●			●		●				●																														D8 F68	3
		CNMG 090408GP	0.8		●			●		●				●																														
		CNMG 120402GP	0.2	●	●		○	●	●	●	●	○		●	○	●	●	●	●		●	●																							
		CNMG 120404GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																						D8 F63 F67 F68	2
		CNMG 120408GP	0.8	●	●		○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																							
Finishing-Medium		CNMG 120404PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		CNMG 120408PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		CNMG 120412PQ	1.2	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
Finishing-Medium		CNMG 090404HQ	0.4		●			●		●				●		●	●	●	●		●	●																						D8 F68	3
		CNMG 090408HQ	0.8		●			●		●				●		●	●	●	●		●	●																							
		CNMG 120404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																●			
		CNMG 120408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																●			
		CNMG 120412HQ	1.2					●						●		●	●	●	●		●	●	●	●	●																●			D8
		CNGG 120408HQ	0.8																		●	●																						F63
		CNGG 120412HQ	1.2																		●	●																						F67 F68
Finishing-Medium / Up Facing		CNMG 120404CQ	0.4	●	●	●	○		●	●	●	○		●	○	●	●	●	●	●	●	●	●																						
		CNMG 120408CQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●																						
		CNMG 120412CQ	1.2					●						●		●	●	●	●	●	●	●	●																						F68 2
		CNMG 160608CQ	0.8													●	●	●	●		●	●																						
		CNMG 160612CQ	1.2													●	●	●	●		●	●																						D8
Finishing-Medium / Up Facing		CNMG 120408CJ	0.8													●	●	●	●	●	●	●	●																						D8 F63 F67 F68
		CNMG 120412CJ	1.2													●	●	●	●	●	●	●	●																						
		CNMG 160612CJ	1.2													●	●	●	●		●	●																						D8
		CNMG 160616CJ	1.6													●	●	●	●		●	●																						

Applicable Chipbreaker Range

ap indicates radius

1



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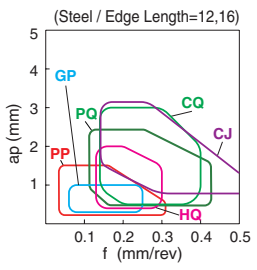

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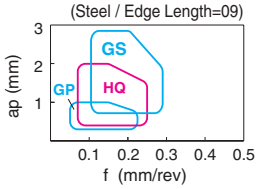


Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

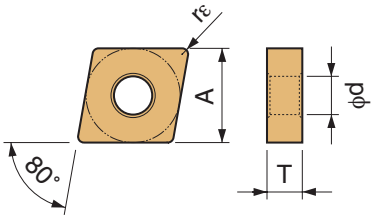
80° Rhombic / Negative with Hole

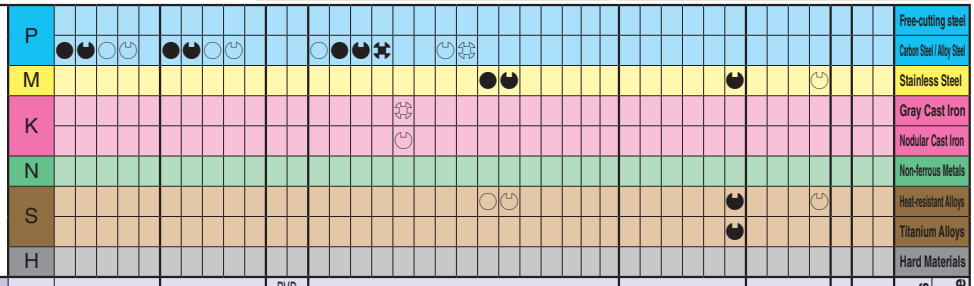
(mm)

Description	A	T	φd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



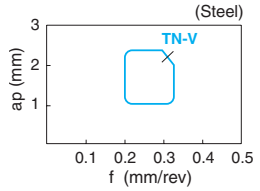


Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	CNMG 120404TN-V 120408TN-V	0.4 0.8					● ●																																				D8 F63 F67 F68	1
Medium - Roughing	CNMG 090404GS 090408GS	0.4 0.8		● ●			● ●		● ●				● ●		● ●	● ●	● ●	● ●		● ●	● ●																							D8 F68	B14 3
	CNMG 120404GS 120408GS 120412GS	0.4 0.8 1.2									○ ○		● ● □	○ ○	● ● ●	● ● ●	● ● ●	● ● ●		● ● ●	● ● ●																								
Medium - Roughing	NEW CNMG 120404PG 120408PG 120412PG 120416PG	0.4 0.8 1.2 1.6	● ●	● ●				● ●	● ●						● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●																	● ● ●										D8 F63 F67 F68	
Medium - Roughing	CNMG 120404PS 120408PS 120412PS 120416PS	0.4 0.8 1.2 1.6			● ●					● ●	○ ○ ○				● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●															● ● ●						
	CNMG 160612PS 160616PS	1.2 1.6													● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	●																				D8	
Medium - Roughing	CNMG 120404HS 120408HS 120412HS 120416HS	0.4 0.8 1.2 1.6				○ ○ ○	○ ○ ○						○ ○ ○	○ ○ ○						○ ○ ○	○ ○ ○																							D8 F63 F67 F68	2
	CNMG 160612HS	1.2																										□																D8	
Medium-Roughing / High Feed Rate	CNMG 120408PT 120412PT	0.8 1.2													● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●																				D8 F63 F67 F68	
	CNMG 160608PT 160612PT 160616PT	0.8 1.2 1.6													● ● ●	● ● ●	● ● ●	● ● ●	● ● □	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●																				D8	
Medium-Roughing / High Feed Rate	CNMG 120408GT 120412GT	0.8 1.2									○		● ●	○ □	● ●	● ●	● ●	● ●		● ●	● ●																							D8 F63 F67 F68	

Applicable Chipbreaker Range

ap indicates radius

1



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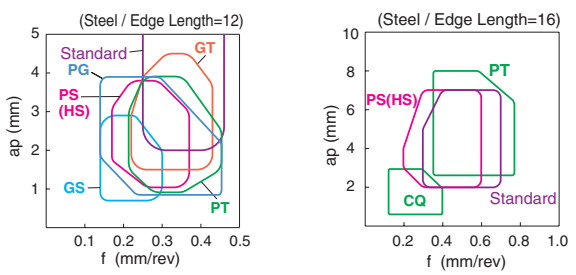


● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

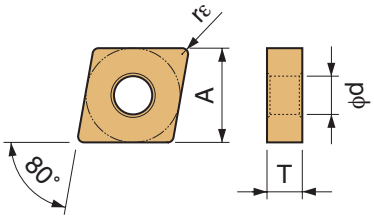
80° Rhombic / Negative with Hole

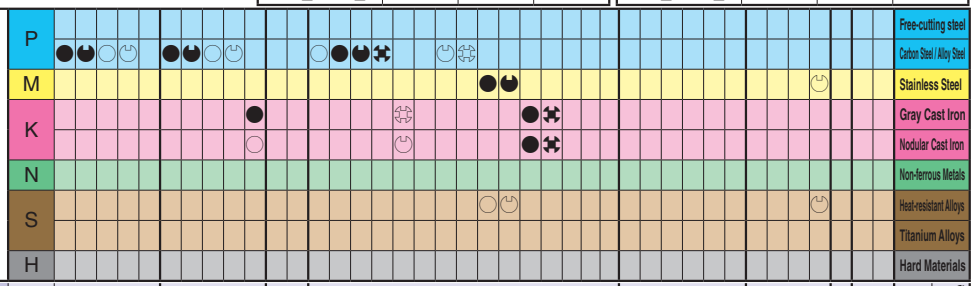
(mm)

Description	A	T	φd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



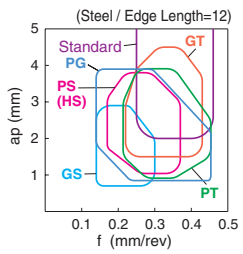


Insert		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Roughing		CNMG 120404	0.4	●	●	●	○	●	●	●	●	○	●	●		●	●	●	●	●	●			●	●	●	●	○	○	●										●			D8 F63 F67 F68	1
		CNMG 120408	0.8	●	●	●	○	●	●	●	●	○	●	●		●	●	●	●	●	●	●	●	●	●	●	●	○	○	●										●				
		CNMG 120412	1.2					●					●			●	●	●	●	●	●	●	●	●	●	●	●	□	○	●										●				
		CNMG 120416	1.6																	●						●	●		○	●														
		CNMG 160608	0.8															●	●	●	●	●				●																	D8	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 F63 F67 F68	3
		CNMG 120412PH	1.2													●	●	●	●		●	●	●			●	●																	
		CNMG 120416PH	1.6													●	●	●	●		●	●	●			●	●																	
		CNMG 160608PH	0.8													●	●	●	●		●	●				●	●																D8	
		CNMG 160612PH	1.2													●	●	●	●		●	●	●			●	●																	
		CNMG 160616PH	1.6													●	●	●	●		●	●				●	●																	
		CNMG 190608PH	0.8													●	●	●	●		●	●																				-	
		CNMG 190612PH	1.2													●	●	●	●		●	●	●																				
		CNMG 190616PH	1.6													●	●	●	●	□	●	●																				
		CNMG 190624PH	2.4													●	●	●	●	□	□																				
Single Sided / Roughing / High Feed Rate		CNMM 120408PX	0.8													●	●	●	●		●	●	●																				D8 F63 F67 F68	4
		CNMM 120412PX	1.2													●	●	●	●		●	●	●																				
		CNMM 120416PX	1.6															●	●		□	□	□																				
		CNMM 160608PX	0.8													●	●	●	●		□	●	●																				D8	
		CNMM 160612PX	1.2													●	●	●	●		●	●	●																				
		CNMM 160616PX	1.6													●	●	●	●		●	●	●																				
		CNMM 190608PX	0.8															●	●		□	●																				-	
		CNMM 190612PX	1.2													●	●	●	●		●	●	●																				
		CNMM 190616PX	1.6													●	●	●	●		●	●	●																				
		CNMM 190624PX	2.4															●	●		●	●	●																				

Applicable Chipbreaker Range

ap indicates radius

1



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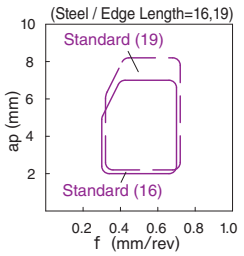

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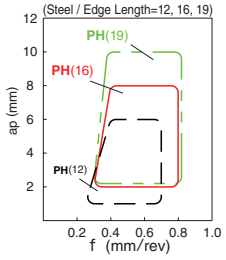

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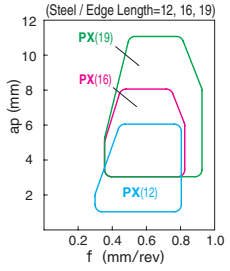


Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" ➡ B13

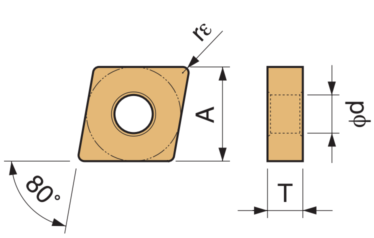
80° Rhombic / Negative with Hole

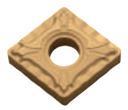
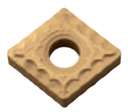
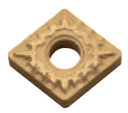
(mm)

Description	A	T	ϕd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



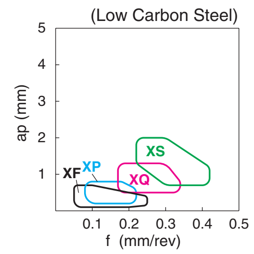
Insert	Description	rε	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide														
		Dimension (mm)	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120
P	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																												
Low Carbon Steel  Finishing / Small ap	CNMG 120404XF	0.4	●	●	●			●	●	●	○																		
	CNMG 120408XF	0.8	●	●	●			●	●	●	○																		
Low Carbon Steel  Finishing	CNMG 120404XP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●								
	CNMG 120408XP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●								
Low Carbon Steel  Medium	CNMG 120404XQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●								
	CNMG 120408XQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●								
Low Carbon Steel  Roughing	CNMG 120408XS	0.8	●	●	●	○	●	●	●		○		●	○	●	●	●	●		●	●								
Finishing-Medium  Sharp Edge / Polished	CNGG 120402MFP-SK	<0.2																											
	CNGG 120404MFP-SK	<0.4																											
Medium - Roughing  Sharp Edge / Polished	CNGG 120404FP-TK	0.4																											
	CNGG 120408FP-TK	0.8																											

Description	rε	MEGACOAT / MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
		PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
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																
CNMG 120404XF	0.4														D8 F63 F67 F68	1
CNMG 120408XF	0.8															
CNMG 120404XP	0.4															
CNMG 120408XP	0.8															
CNMG 120404XQ	0.4															
CNMG 120408XQ	0.8															
CNMG 120408XS	0.8															
CNGG 120402MFP-SK	<0.2	●	●				●								D8 E40 F63 F67 F68	2
CNGG 120404MFP-SK	<0.4	●	●				●									
CNGG 120404FP-TK	0.4	●	●				●									
CNGG 120408FP-TK	0.8	●	●				●									

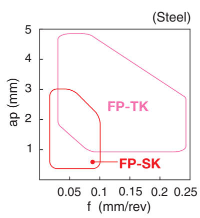
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

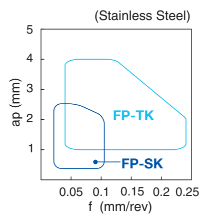
Applicable Chipbreaker Range
ap indicates radius

1



2





● : Std. Item ○ : Check Availability

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

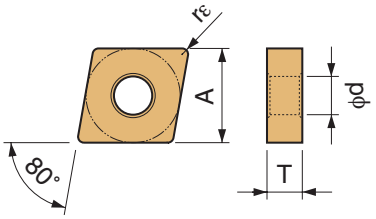
80° Rhombic / Negative with Hole

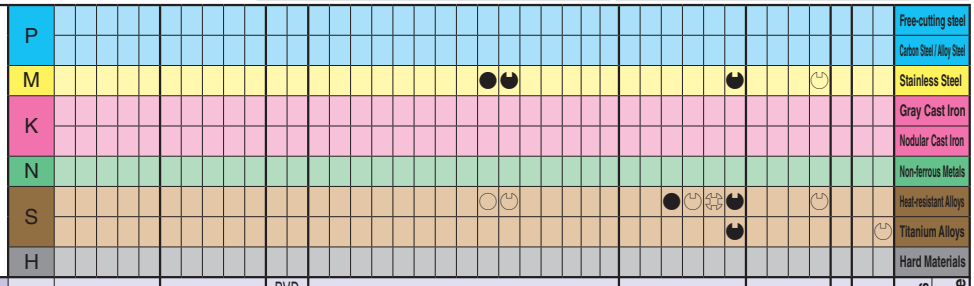
(mm)

Description	A	T	φd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94

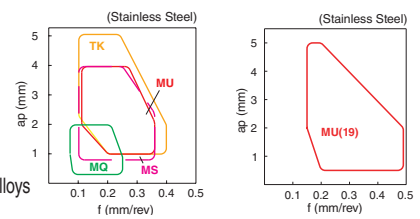




Insert		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys	Medium-Roughing / Sharp Edge	CNGG 120404TK	0.4																													●	●									●		
		CNGG 120408TK	0.8																													●	●									●		
	Medium - Roughing	CNMG 120404TK	0.4																					●	●							●	●	●					●					
		CNMG 120408TK	0.8																					●	●							●	●	●					●					
Stainless Steel / Heat-Resistant Alloys	Finishing-Medium	CNMG 120404MQ	0.4																					●	●							●	●	●	●				●			●	D8 F63 F67 F68	1
		CNMG 120408MQ	0.8																					●	●							●	●	●	●				●			●		
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	CNMG 120404MS	0.4																					●	●							●	●	●	●				●			●		
		CNMG 120408MS	0.8																					●	●							●	●	●	●				●			●		
		CNMG 120412MS	1.2																					●	●							●	●	●	●				●			●		
		CNMG 120416MS	1.6																					●	●							●	●	●					●			●		
Stainless Steel / Heat-Resistant Alloys	Medium - Roughing	CNMG 120404MU	0.4																					●	●							●	●	●	●				●			●		
		CNMG 120408MU	0.8																					●	●							●	●	●	●				●			●		
		CNMG 120412MU	1.2																					●	●							●	●	●	●				●			●		
		CNMG 160608MU	0.8																					●	●									●	●				●			●	D8	
		CNMG 160612MU	1.2																					●	●									●	●				●			●		
		CNMG 160616MU	1.6																					●	●									●	●				●			●		
		CNMG 190612MU	1.2																															●	●								-	
		CNMG 190616MU	1.6																															●	●									

Applicable Chipbreaker Range
ap indicates radius

1



Heat-Resistant Alloys
Titanium Alloys

B6

Inserts are sold in 10 piece boxes

● : Std. Item

How to read pages of "Turning Inserts" B13

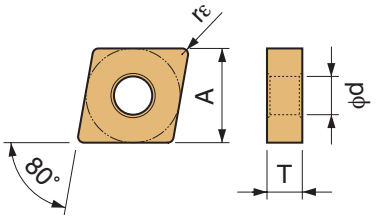
80° Rhombic / Negative with Hole

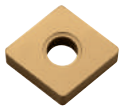
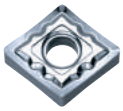
(mm)

Description	A	T	φd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94

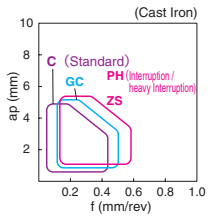


Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron	 Roughing	CNMG 120404C 120408C 120412C 120416C	0.4 0.8 1.2 1.6																□ ● ● ●						● ● ● ●	● ● ● □	○ ○ ○ □	● ● ● ●														D8 F63 F67 F68	
		CNMG 160612C	1.2																						● ●	● ●	□ □	● ●														D8	
Cast Iron	 Roughing	CNMG 120408ZS 120412ZS	0.8 1.2																● ●						● ●	● ●	○ ○	○ ○	● ●															1
Cast Iron	 Roughing	CNMG 120408GC 120412GC	0.8 1.2																●						● ●	● ●	○ ○	○ □	● ●															
Cast Iron	 Without Chipbreaker	CNGA 120404 120408	0.4 0.8									● ●														● ●												● ●					-
		CNMA 120404 120408 120412 120416	0.4 0.8 1.2 1.6									● ●							● ● ● ●							● ● ● ●	● ● ● ●	□ ○ ○ □	□ ○ ○ □	● ● ● ●											● ●		D8 F63 F67 F68	
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	CNGG 120404R-A3 120404L-A3 120408R-A3 120408L-A3	0.4 0.4 0.8 0.8																																	● ● ● ●	● ● ● ●			
Non-ferrous Metals	 Medium-Roughing / Sharp Edge	CNGG 120404AH 120408AH	0.4 0.8																																	● ●	● ●			2
Non-ferrous Metals	 Medium - Roughing	CNMG 120404AH 120408AH	0.4 0.8																																	● ●	● ●			

Applicable Chipbreaker Range

ap indicates radius

1



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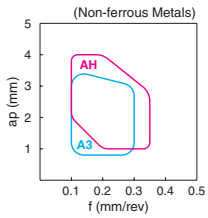


● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

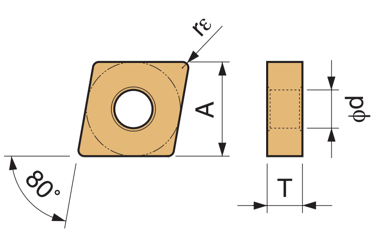
80° Rhombic / Negative with Hole

(mm)

Description	A	T	ϕd
CN_0904_	9.525	4.76	3.81
CN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
CN_1606_	15.875	6.35	6.35
CN_1906_	19.05	6.35	7.94



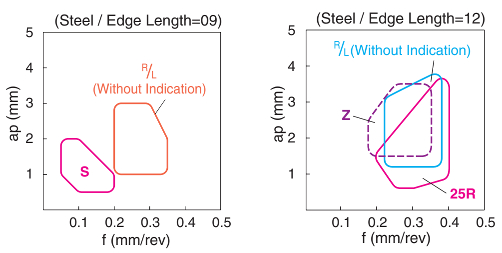
P: Free-cutting steel, Carbon Steel / Alloy Steel; M: Stainless Steel; K: Gray Cast Iron, Nodular Cast Iron; N: Non-ferrous Metals; S: Heat-resistant Alloys, Titanium Alloys; H: Hard Materials

Insert (Handed Insert shows Right-hand)

Insert	Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT / MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing (Surface Roughness Oriented)	CNGG 090402R-S	0.2	●		●		●	●					●																															D8 F68	
	090402L-S	0.2	●		●		●	●																																					
	090404R-S	0.4	●		●		●	●					●																																
	090404L-S	0.4	●		●		●	●																																	●				
	090408R-S	0.8	●		●			●																																					
	090408L-S	0.8	●		●			●																																					
Medium	CNGG 090404L	0.4																																							●				
	090408L	0.8																																							●				
	CNGG 120404R	0.4	●	●	●	○	●	●	●																																				1
	120404L	0.4	●	●	●	○	●	●	●																																				
	120408R	0.8	●		●	□	●	●																																					
	120408L	0.8	●		●	□	●	●																																					
Medium - Roughing (Low cutting force)	CNGG 120404R-25R	0.4	●		●		●	●																																	●		D8 F63 F67 F68	
	120404L-25R	0.4	●		●		●	●																																	●			
	120408R-25R	0.8	●		●		●	●																																	●			
	120408L-25R	0.8	●		●		●	●																																	●			
Medium - Roughing	CNGG 120404Z	0.4					●																																					

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

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

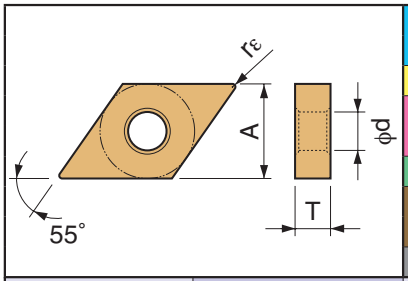
55° Rhombic / Negative with Hole

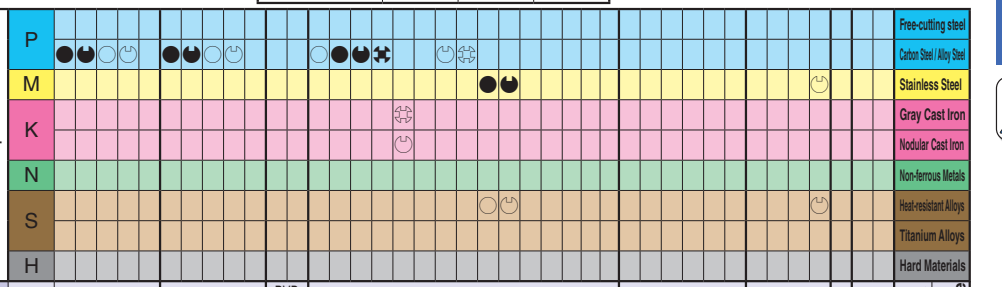
(mm)

Description	A	T	φd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	φd
DN_1506_	12.70	6.35	5.16



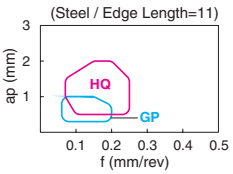


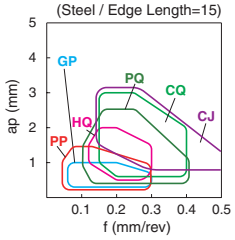
Insert		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		DNMG 150402PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D10 D11 F64 F70 F71	
		150404PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150408PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150412PP	1.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		DNMG 150602PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D10 D11 F64	
		150604PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150608PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150612PP	1.2	●	●	●	○		●	●	●	○				●	●	●	●																										
Finishing		DNMG 110404GP	0.4		●			●		●				●		●	●	●	●			●	●																					D11 F69	
		110408GP	0.8		●			●		●				●		●	●	●	●			●																						
		DNMG 150402GP	0.2	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●			●	●																					D10 D11 F64 F70 F71	
		150404GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●		●	●																						
		150408GP	0.8	●	●		○	●	●	●	●	○		●	○	●	●	●	●	●		●	●																						
		DNMG 150602GP	0.2	●		●			●		●					●	●	●	●																									D10 D11 F64	1
		150604GP	0.4	●		●			●		●					●	●	●	●																										
		150608GP	0.8	●		●			●		●					●	●	●	●																										
Finishing-Medium		DNMG 150404PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D10 D11 F64 F70 F71	
		150408PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150412PQ	1.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		DNMG 150604PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D10 D11 F64	
		150608PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
		150612PQ	1.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																						
Finishing-Medium		DNMG 110402HQ	0.2		●			●		●				●		●	●	●	●			●	●																					D11 F69	
		110404HQ	0.4		●			●		●				●		●	●	●	●			●	●																						
		DNMG 150404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																	●		D10 D11 F64 F70 F71	
		150408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																	●				
		150412HQ	1.2	●		●	○	●	●			○		●	○	●	●	●	●	●	●	●	●																			●				
		DNMG 150604HQ	0.4	●		●			●		●	○				●	●	●	●	●	●	●	□	●	●																	●		D10 D11 F64	
		150608HQ	0.8	●		●			●		●	○				●	●	●	●	●	●	●	□	●	●																	●				
		150612HQ	1.2	●		●			●		●					●	●	●	●	□	●	●	□																			●				

Applicable Chipbreaker Range

ap indicates radius

1





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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

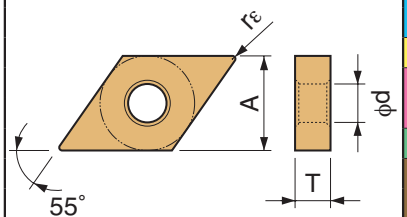
55° Rhombic / Negative with Hole

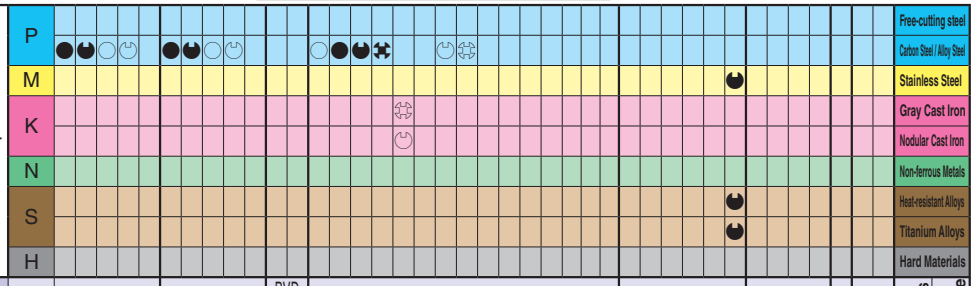
(mm)

Description	A	T	φd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	φd
DN_1506_	12.70	6.35	5.16



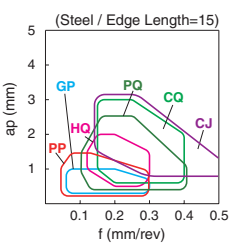


Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium / Up Facing	DNMG 150404CQ 150408CQ 150412CQ	0.4 0.8 1.2	● ● ●	● ● ●	● ● ●	○ ○ □	● ● 	● ● ●	● ● ●	● ● 	○ ○ ○		● ● ●	○ ○ ○	● ● ●	● ● ●	● ● ●	● ● ●	● ● □	● ● ●	● ● ●	● ● ●																					D10 D11 F64 F70 F71	
	DNMG 150604CQ 150608CQ 150612CQ	0.4 0.8 1.2	● 	 	● 	 	 	● 	 	● 	 	 	 	 	● ● ●	● ● ●	● ● ●	● ● ●	□ ● □	● ● ●	● ● ●	 ● □																					D10 D11 F64	1
Finishing-Medium / Up Facing	DNMG 150408CJ 150412CJ	0.8 1.2													● ●	● ●	● ●	● ●	□ □	● ●	● ●	□ 																					D10 D11 F64 F70 F71	
	DNMG 150608CJ 150612CJ	0.8 1.2													● ●	● ●	● ●	● ●	● □	● ●	● ●	● 																					D10 D11 F64	
Medium	DNMG 150404TN-V 150408TN-V	0.4 0.8					● ●																																				D10 D11 F64 F70 F71	2
Medium - Roughing	DNMG 110404GS 110408GS	0.4 0.8		● ●			● ●	● ●					● ●		● ●	● ●	● ●	● ●		● ●	● ●																					D11 F69	
	DNMG 150404GS 150408GS 150412GS	0.4 0.8 1.2									○ ○ 		● ● ●	○ ○ 	● ● ●	● ● ●	● ● ●	● ● ●		● ● ●	● ● ●																					D10 D11 F64 F70 F71	
	DNMG 150604GS 150608GS	0.4 0.8											● ●				● ●	● ●																									D10 D11 F64	
Medium - Roughing	NEW DNMG 150404PG 150408PG 150412PG 150416PG	0.4 0.8 1.2 1.6	● ● 	● ● ●				● ● 	● ● ●						● ● ●	● ● ●	● ● ●	● ● ●																									D10 D11 F64 F70 F71	3
	DNMG 150604PG 150608PG 150612PG 150616PG	0.4 0.8 1.2 1.6	● ● 	● ● ●				● ● 	● ● ●						● ● ●	● ● ●	● ● ●	● ● ●																									D10 D11 F64	

Applicable Chipbreaker Range

ap indicates radius

1



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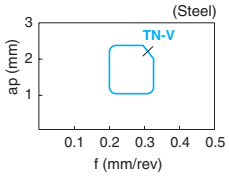

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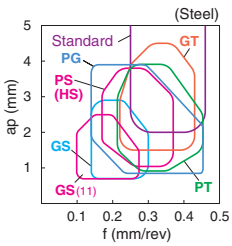


Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

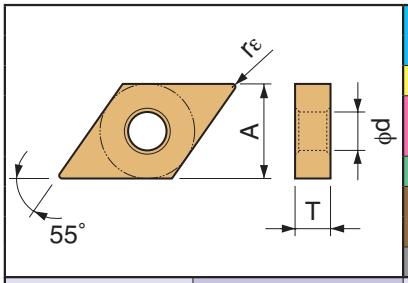
55° Rhombic / Negative with Hole

(mm)

Description	A	T	φd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	φd
DN_1506_	12.70	6.35	5.16



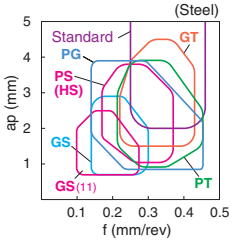
P: Free-cutting steel / Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron / Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys / Titanium Alloys
H: Hard Materials

Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing		DNMG 150404PS 150408PS 150412PS 150416PS	0.4 0.8 1.2 1.6			●				●	○	○				●	●	●	●	●	●	●	●	●	●														●			D10 D11 F64 F70 F71	
		DNMG 150604PS 150608PS 150612PS 150616PS	0.4 0.8 1.2 1.6			●				●	○	○				●	●	●	●	●	●	●	●	●	●														●			D10 D11 F64	
Medium - Roughing		DNMG 150404HS 150408HS 150412HS	0.4 0.8 1.2				○ ○ □	○ ○ ○					○ ○ ○	○ ○ ○						○ ○ □	○ ○ ○																						D10 D11 F64 F70 F71	
		DNMG 150604HS 150608HS 150612HS	0.4 0.8 1.2					○ ○ ○					○ ○							○ ○	○ ○ ○																						D10 D11 F64	
Medium-Roughing / High Feed Rate		DNMG 150408PT 150412PT	0.8 1.2												●	●	●	●	●	●	●	●		●																				D10 D11 F64 F70 F71	1
		DNMG 150608PT 150612PT	0.8 1.2												●	●	●	●	●	●	●	●	●	●																				D10 D11 F64	
Medium-Roughing / High Feed Rate		DNMG 150408GT 150412GT	0.8 1.2										●		●	●	●	●		●	●																						D10 D11 F64 F70 F71	
		DNMG 150608GT 150612GT	0.8 1.2										□		●	●	●	●		●	●																						D10 D11 F64	
Roughing		DNMG 150404 150408 150412	0.4 0.8 1.2	●	●	●	○ ○	●	●	●	●	○ ○	●	●	●	●	●	●	●	●	●	●	●		●	●	○	○	●														D10 D11 F64 F70 F71	
		DNMG 150604 150608 150612	0.4 0.8 1.2									●			●	●	●	●	□	●	●	●			●	●		○	●														D10 D11 F64	

Applicable Chipbreaker Range

ap indicates radius

1



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

Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" ➡ B13

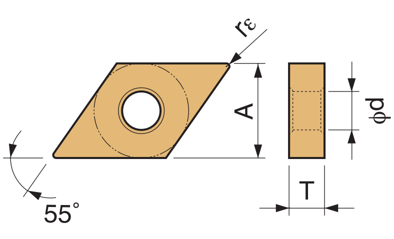
55° Rhombic / Negative with Hole

(mm)

Description	A	T	ϕd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

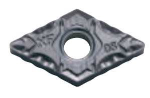
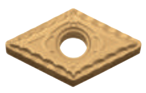
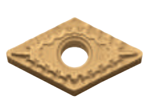
Description	A	T	ϕd
DN_1506_	12.70	6.35	5.16



Work material	Cermet					MEGACOAT Cermet					PVD Coated Cermet	
	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020
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												

Work material	CVD Coated Carbide														
	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	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															

Work material	MEGACOAT / MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide	
	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	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	rε (mm)	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020
Roughing 	DNMG 150408PH	0.8												
	150412PH	1.2												
	150416PH	1.6												
	DNMG 150608PH	0.8												
	150612PH	1.2												
	150616PH	1.6												
Single Sided / Roughing / High Feed Rate 	DNMM 150408PX	0.8												
	150412PX	1.2												
	150416PX	1.6												
	DNMM 150608PX	0.8												
	150612PX	1.2												
	150616PX	1.6												
Low Carbon Steel  Finishing / Small ap	DNMG 150404XF	0.4	●	●	●			●	●	●	○			
	150408XF	0.8	●	●	●			●	●	●	○			
Low Carbon Steel  Finishing	DNMG 150404XP	0.4	●	●	●	○	●	●	●	●	○		●	○
	150408XP	0.8	●	●	●	○	●	●	●	●	○		●	○
	DNMG 150604XP	0.4	●					●		●				
	150608XP	0.8	●					●		●				
Low Carbon Steel  Medium	DNMG 150404XQ	0.4	●	●	●	○	●	●	●	●	○		●	○
	150408XQ	0.8	●	●	●	○	●	●	●	●	○		●	○
	DNMG 150604XQ	0.4								●				
	150608XQ	0.8								●				
Low Carbon Steel  Roughing	DNMG 150408XS	0.8	●	●	●	□		●	●		○		●	○
Finishing-Medium  Sharp Edge / Polished	DNGG 150402MFP-SK	<0.2												
	150404MFP-SK	<0.4												

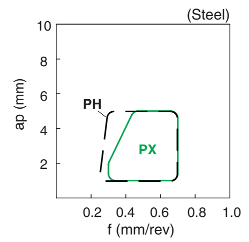
Description	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120
DNMG 150408PH	●	●	●	●		●	●				●	●			
150412PH	●	●	●	●		●	●				●	●			
150416PH			●	●		□	●								
DNMG 150608PH	●	●	●	●		●	●	●			●	●			
150612PH	●	●	●	●		●	●	●			●	●			
150616PH	●	●	●	●		●	●								
DNMM 150408PX			●	●			●	●							
150412PX			●	●			●								
150416PX			●	●											
DNMM 150608PX	●	●	●	●		●	●								
150612PX	●	●	●	●		●	●	●							
150616PX			●	●		□	●	□							
DNMG 150404XF															
150408XF															
DNMG 150404XP	●	●	●	●	●	●	●								
150408XP	●	●	●	●	●	●	●								
DNMG 150604XP															
150608XP															
DNMG 150404XQ	●	●	●	●		●	●								
150408XQ	●	●	●	●		●	●								
DNMG 150604XQ															
150608XQ															
DNMG 150408XS	●	●	●	●		●	●								
DNGG 150402MFP-SK															
150404MFP-SK															

Description	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
DNMG 150408PH														D10 D11 F64 F70 F71	1
150412PH															
150416PH															
DNMG 150608PH														D10 D11 F64	
150612PH															
150616PH															
DNMM 150408PX														D10 D11 F64 F70 F71	
150412PX															
150416PX															
DNMM 150608PX														D10 D11 F64	
150612PX															
150616PX															
DNMG 150404XF														D10 D11 F64 F70 F71	2
150408XF															
DNMG 150404XP															
150408XP															
DNMG 150604XP														D10 D11 F64	
150608XP															
DNMG 150404XQ														D10 D11 F64 F70 F71	
150408XQ															
DNMG 150604XQ														D10 D11 F64	
150608XQ															
DNMG 150408XS														D10 D11 F64 F70 F71	
DNGG 150402MFP-SK	●	●				●									3
150404MFP-SK	●	●				●									

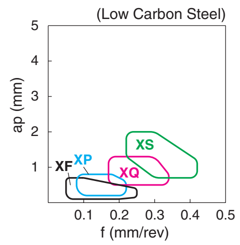
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

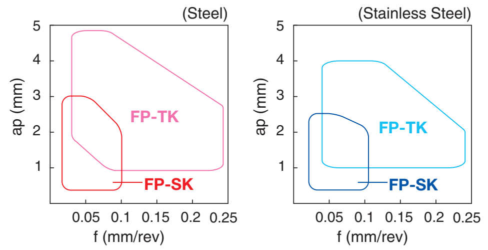
1



2



3



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How to read pages of "Turning Inserts" ➡ B13

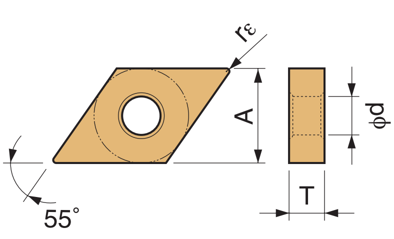
55° Rhombic / Negative with Hole

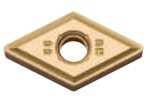
(mm)

Description	A	T	ϕd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
DN_1506_	12.70	6.35	5.16



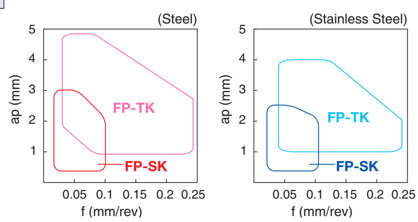
Insert	Description	Dimension (mm)	Cermet					MEGACOAT Cermet					PVD Coated Cermet	
		rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020
P Free-cutting steel														
P Carbon Steel / Alloy Steel														
M Stainless Steel														
K Gray Cast Iron														
K Nodular Cast Iron														
N Non-ferrous Metals														
S Heat-resistant Alloys														
S Titanium Alloys														
H Hard Materials														
Medium - Roughing  Sharp Edge / Polished	DNGG 150404FP-TK	0.4												
	150408FP-TK	0.8												
Stainless Steel / Heat-Resistant Alloys  Medium - Roughing / Sharp Edge	DNGG 150404TK	0.4												
	150408TK	0.8												
	DNGG 150604TK	0.4												
	150608TK	0.8												
 Medium - Roughing	DNMG 150404TK	0.4												
	150408TK	0.8												
	DNMG 150604TK	0.4												
	150608TK	0.8												
Stainless Steel / Heat-Resistant Alloys  Finishing-Medium	DNMG 150404MQ	0.4												
	150408MQ	0.8												
	DNMG 150604MQ	0.4												
	150608MQ	0.8												
Stainless Steel / Heat-Resistant Alloys  Medium - Roughing	DNMG 150404MS	0.4												
	150408MS	0.8												
	150412MS	1.2												
	DNMG 150604MS	0.4												
	150608MS	0.8												
	150612MS	1.2												
Stainless Steel / Heat-Resistant Alloys  Medium-Roughing	DNMG 150404MU	0.4												
	150408MU	0.8												
	DNMG 150604MU	0.4												
	150608MU	0.8												

Description	rε	CVD Coated Carbide														
		CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	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																
DNGG 150404FP-TK	0.4															
150408FP-TK	0.8															
DNGG 150404TK	0.4															
150408TK	0.8															
DNGG 150604TK	0.4															
150608TK	0.8															
DNMG 150404TK	0.4									●	●					
150408TK	0.8									●	●					
DNMG 150604TK	0.4									●	●					
150608TK	0.8									●	●					
DNMG 150404MQ	0.4									●	●					
150408MQ	0.8									●	●					
DNMG 150604MQ	0.4									●	●					
150608MQ	0.8									●	●					
DNMG 150404MS	0.4									●	●					
150408MS	0.8									●	●					
150412MS	1.2									●	●					
DNMG 150604MS	0.4									●	●					
150608MS	0.8									●	●					
150612MS	1.2									●	●					
DNMG 150404MU	0.4									●	●					
150408MU	0.8									●	●					
DNMG 150604MU	0.4									●	●					
150608MU	0.8									●	●					

Description	rε	MEGACOAT MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
		PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	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																
DNGG 150404FP-TK	0.4	●	●				●								D10 D11 F64 F70 F71	1
150408FP-TK	0.8	●	●				●									
DNGG 150404TK	0.4			●	●									●		
150408TK	0.8			●	●									●		
DNGG 150604TK	0.4			●	●									●	D10 D11 F64	
150608TK	0.8			●	●									●		
DNMG 150404TK	0.4			●	●	●					●				D10 D11 F64 F70 F71	
150408TK	0.8			●	●	●					●					
DNMG 150604TK	0.4			●	●	●					●				D10 D11 F64	
150608TK	0.8			●	●	●					●					
DNMG 150404MQ	0.4			●	●	●	●				●			●	D10 D11 F64 F70 F71	
150408MQ	0.8			●	●	●	●				●			●		
DNMG 150604MQ	0.4			●	●	●	●				●			●	D10 D11 F64	2
150608MQ	0.8			●	●	●	●				●			●		
DNMG 150404MS	0.4			●	●	●	●				●			●	D10 D11 F64 F70 F71	
150408MS	0.8			●	●	●	●				●			●		
150412MS	1.2			●	●	●	●				●			●		
DNMG 150604MS	0.4			●	●	●	●				●				D10 D11 F64	
150608MS	0.8			●	●	●	●				●					
150612MS	1.2			●	●	●	●				●					
DNMG 150404MU	0.4			●	●	●	●				●			●	D10 D11 F64 F70 F71	
150408MU	0.8			●	●	●	●				●			●		
DNMG 150604MU	0.4			●	●	●	●				●			●	D10 D11 F64	
150608MU	0.8			●	●	●	●				●			●		

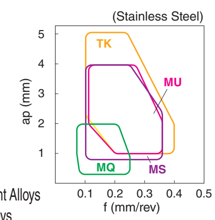
Applicable Chipbreaker Range
ap indicates radius

1



2

Heat-resistant Alloys
Titanium Alloys
➡ B6



● : Std. Item

Inserts are sold in 10 piece boxes

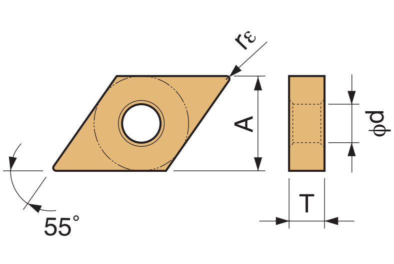
55° Rhombic / Negative with Hole

(mm)

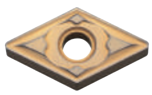
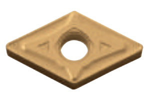
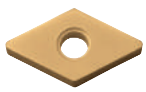
Description	A	T	ϕd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
DN_1506_	12.70	6.35	5.16



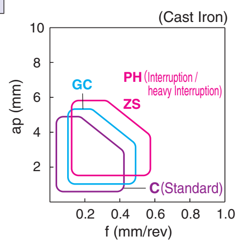
Material groups: P (Free-cutting steel, Carbon Steel / Alloy Steel), M (Stainless Steel), K (Gray Cast Iron, Nodular Cast Iron), N (Non-ferrous Metals), S (Heat-resistant Alloys, Titanium Alloys), H (Hard Materials)

Insert	Description	Dimension (mm) rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide															MEGACOAT MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide			
K Gray Cast Iron												●							⊕						●	●															⊕			
K Nodular Cast Iron												○							⊕						✖	✖																		
Cast Iron  Roughing	DNMG 150404C	0.4																							●	●		○	●														D10 D11 F64 F70 F71	
	150408C	0.8																							●	●		○	●															
	150412C	1.2																								●		□																
	DNMG 150604C	0.4																							□	●																	D10 D11 F64	
	150608C	0.8																							●	●			●															
	150612C	1.2																								●			●															
Cast Iron  Roughing	DNMG 150408ZS	0.8																	□						●	●	□	○	●														D10 D11 F64 F70 F71	1
	150412ZS	1.2																	□						●	●		□	●															
	DNMG 150608ZS	0.8																							●	●		○	●														D10 D11 F64	
	150612ZS	1.2																							●	●			●															
Cast Iron  Roughing	DNMG 150408GC	0.8																	●						●	●	□		●														D10 D11 F64 F70 F71	
	150412GC	1.2																								●			●															
	DNMG 150608GC	0.8																	□						□	●			●														D10 D11 F64	
	150612GC	1.2																								□																		
Cast Iron  Without Chipbreaker	DNMA 150404	0.4																	●						●	●		○	●													●		D10 D11 F64 F70 F71	
	150408	0.8										●							●						●	●	○	○	●												●			
	DNMA 150604	0.4																							●	●																	D10 D11 F64	
	150608	0.8																							●	●																		

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

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

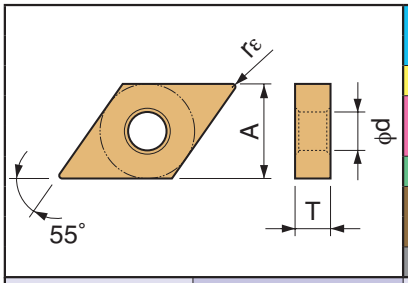
55° Rhombic / Negative with Hole

(mm)

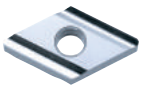
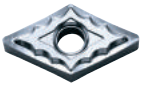
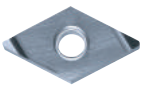
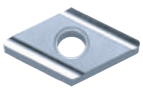
Description	A	T	φd
DN_1104_	9.525	4.76	3.81
DN_1504_	12.70	4.76	5.16

(mm)

Description	A	T	φd
DN_1506_	12.70	6.35	5.16



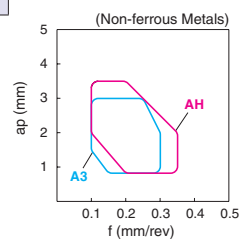
	Free-cutting steel	Carbon Steel / Alloy Steel	Stainless Steel	Gray Cast Iron	Nodular Cast Iron	Non-ferrous Metals	Heat-resistant Alloys	Titanium Alloys	Hard Materials
P	●●	○							
M			●	○					
K				●	○				
N						●	○		
S								●	
H									

Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	DNGG 150404R-A3	0.4																																					●	●		D10	
		150404L-A3	0.4																																					●	●			
		DNGG 150408R-A3	0.8																																					●	●		D11	
		150408L-A3	0.8																																					●	●			
																																											D64	
																																											D70	
Non-ferrous Metals	 Medium-Roughing / Sharp Edge	DNGG 150404AH	0.4																																					●	●		D71	1
		150408AH	0.8																																					●	●			
		DNGG 150604AH	0.4																																						●		D10	
		150608AH	0.8																																						●		D11	
																																											D64	
Non-ferrous Metals	 Medium-Roughing	DNMG 150404AH	0.4																																					●	●		D10	
		150408AH	0.8																																					●	●		D11	
																																											D64	
																																											D70	
																																											D71	
Finishing	 Surface Roughness Oriented	DNGG 110402R-S	0.2					●					●																												●			
		110402L-S	0.2					●					□																												●		D11	
		110404R-S	0.4					●					●																												●			
		110404L-S	0.4					●					●																												●			
		110408R-S	0.8					●					●																												●			
		110408L-S	0.8					●					●																															D69	
Medium		DNGG 110404R	0.4					●																																	●			2
		110404L	0.4					●																																	●			
		110408R	0.8					●																																				
		DNGG 150404R	0.4	●	●	●	○	●	●	●		○	●	○																								●				●		D10	
		150404L	0.4	●	●	●	○	●	●	●		○	□	○																								●				●		D11	
		150408R	0.8	●	●	●	○	●	●	●		○	●	○																												●		D64	
		150408L	0.8	●	●	●	○	●	●	●		○	●	□																								●				●		D70	
																																											D71	

Applicable Chipbreaker Range

ap indicates radius

1



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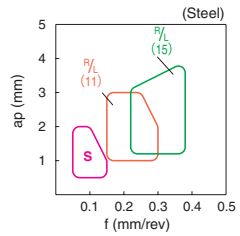


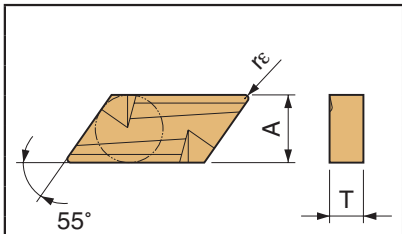
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

55° Parallelogram / Negative without Hole

(mm)

Description	A	T	φd
KNMX1604_	9.525	4.76	-



Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to 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																		●	●					●																			

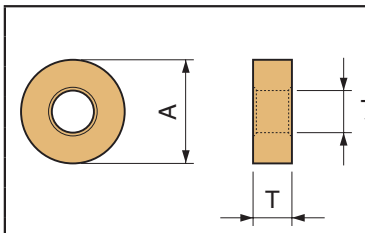
Round / Negative with Hole

(mm)

Description	A	T	φd
RN_0903_	9.525	3.18	3.81
RN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
RN_1506_	15.875	6.35	6.35

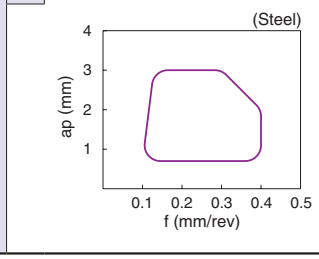


Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium-Roughing	RNMG 090300	-					●					●			●	●	●	●			●																						D19	2
	RNMG 120400	-					●					●			●	●	●	●			●	●				●																			
	RNMG 150600	-															●	●			●	●				●	○																	-	

Applicable Chipbreaker Range

ap indicates radius

1



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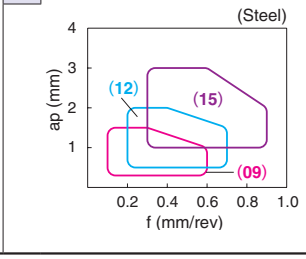


Inserts are sold in 10 piece boxes

● : Std. Item ○ : Check Availability

How to read pages of "Turning Inserts" ➡ B13

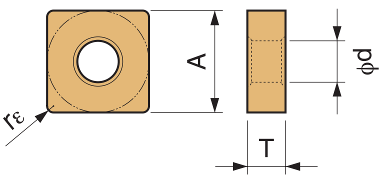
90° Square / Negative with Hole

(mm)

Description	A	T	ϕd
SN_0903_	9.525	3.18	3.81
SN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
SN_1506_	15.875	6.35	6.35
SN_1906_	19.05	6.35	7.94

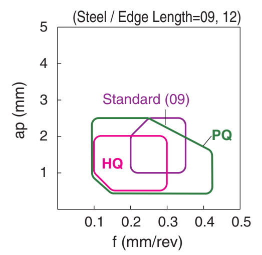


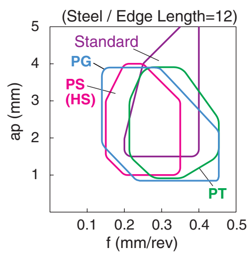
	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	
P																																									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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT / MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium		SNMG 120404PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●		●	●																						D12 D13 F73	1
		120408PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		120412PQ	1.2													●	●	●	●		●	●																							
Finishing-Medium		SNMG 120404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●																							
		120408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																●					
		120412HQ	1.2	●		●	○	●	●			○		●	○	●	●	●	●		●	●	□																						
Medium - Roughing	NEW 	SNMG 120408PG	0.8	●	●				●	●						●	●	●	●																	●									
		120412PG	1.2		●					●						●	●	●	●																	●									
		120416PG	1.6		●					●						●	●	●	●																										
Medium - Roughing		SNMG 120408PS	0.8			●					●	○				●	●	●	●	●	●	●	●	●	●															●					
		120412PS	1.2									□				●	●	●	●		●	●	●		●															●					
		120416PS	1.6													●	●	●	●		●	●	□																						
Medium - Roughing		SNMG 120408HS	0.8				○	○						○	○						○	○																							
		120412HS	1.2				○	○						○	○						○	○																							
		120416HS	1.6				○	○							○							○																							
Medium-Roughing / High Feed Rate		SNMG 120408PT	0.8													●	●	●	●	●	□	●	●		●																				
		120412PT	1.2													●	●	●	●	●	□	●	●		●																				
Roughing		SNMG 090304	0.4	●		●		●	●									●	●			●																						D12 D13	
		090308	0.8	●		●		●	●									●	●			●					●																		
		SNMG 120404	0.4	●	●	●	○	●	●	●		○	●	●						●						●	●		○	●														D12 D13 F73	
		120408	0.8	●	●	●	○	●	●	●		○	●	●		●	●	●	●	●	●	●	●	●	●	●	●	○	□	●										●					
		120412	1.2				○	●						●		●	●	●	●	●	●	●	●			●	●	○	□	●										●					
		120416	1.6				○	●										●	●	●	●	●	●				●	□	□	●															
		120420	2.0					●												●							●	□	□	●															
		SNMG 190612	1.2																	●			●																					-	2
		190616	1.6																				●																						

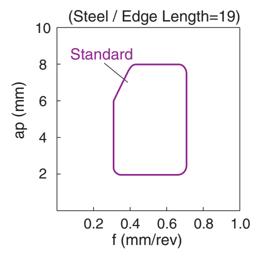
Applicable Chipbreaker Range
ap indicates radius

1





2



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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

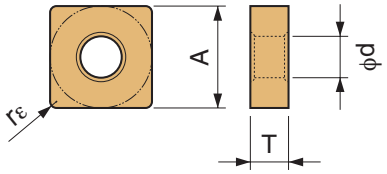
90° Square / Negative with Hole

(mm)

Description	A	T	φd
SN_0903_	9.525	3.18	3.81
SN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	φd
SN_1506_	15.875	6.35	6.35
SN_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

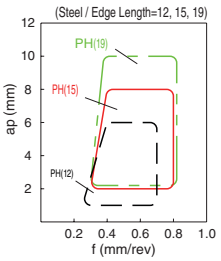
H Hard Materials

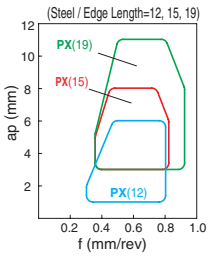
Insert		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Roughing		SNMG 120408PH 120412PH 120416PH	0.8 1.2 1.6													●	●	●	●		●	●	●			●	●														D12 D13 F73	
		SNMG 150612PH 150616PH	1.2 1.6													●	●	●	●		□	●				●	●														-	
		SNMG 190612PH 190616PH 190624PH	1.2 1.6 2.4															●	●		●	●	●																		-	
Single Sided / Roughing / High Feed Rate		SNMM 120408PX 120412PX 120416PX	0.8 1.2 1.6													●	●	●	●		●	□																		D12 D13 F73	1
		SNMM 150612PX 150616PX	1.2 1.6															●	●		●	●	□																		-	
		SNMM 190612PX 190616PX 190624PX	1.2 1.6 2.4													●	●	●	●		□	●	●																		-	
Low Carbon Steel	 Finishing	SNMG 120408XP	0.8	●	●	●	○	□	●	●	●	○		●	○	●	●	●	●		●	●																				
Low Carbon Steel	 Medium	SNMG 120408XQ	0.8	●	●	●	□	●	●	●	●	○		●	○	●	●	●	●		●	●																		D12 D13 F73	2
Low Carbon Steel	 Roughing	SNMG 120408XS	0.8	●	●	●	○		●	●		○				●	●	●	●		□	●																				

Applicable Chipbreaker Range

ap indicates radius

1





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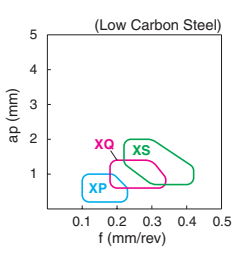


Inserts are sold in 10 piece boxes

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

How to read pages of “Turning Inserts” ➡ B13

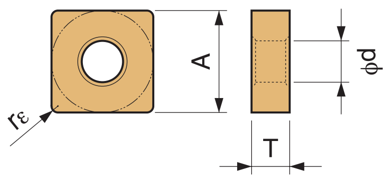
90° Square / Negative with Hole
90° Square / Negative without Hole

(mm)

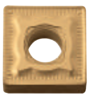
Description	A	T	ϕd
SN_1204_	12.70	4.76	5.16
SN_1506_	15.875	6.35	6.35

(mm)

Description	A	T	ϕd
SN_1906_	19.05	6.35	7.94
SNMN1204_	12.70	4.76	-

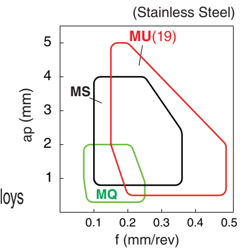


		Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide															MEGACOAT / MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide	
		TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	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																																								

Workpiece	Insert	Description	Dimension (mm) rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys	 Finishing-Medium	SNMG 120404MQ	0.4																					●	●								●	●	●					●			●	D12 D13 F73	1
		120408MQ	0.8																					●	●								●	●	●					●			●		
	 Medium-Roughing	SNMG 120404MS	0.4																					●	●								●	●	●					●			●		
		120408MS	0.8																					●	●								●	●	●	●				●			●		
		120412MS	1.2																					●	●								●	●	●	●				●			●		
		120416MS	1.6																					●	●								●	●	●					●					
	 Medium-Roughing	SNMG 190612MU	1.2																															●	●									-	
		190616MU	1.6																															●	●										
Cast Iron	 Roughing	SNMG 120408C	0.8																	□							●		□	●														D12 D13 F73	2
		120412C	1.2																								●			●															
Cast Iron	 Roughing	SNMG 120408ZS	0.8																	●						●	●	○	□	●															
		120412ZS	1.2																	□						●	●	○	□	●															
Cast Iron	 Roughing	SNMG 120408GC	0.8																	●						●	●		□	●															
		120412GC	1.2																	●							●	○	○	●															
Cast Iron		SNGA 120404	0.4																																							●			
		120408	0.8										●																													●			
	 Without Chipbreaker	SNMA 120404	0.4																	□							●		□																
		120408	0.8																	●						●	●	○	□	●															
		120412	1.2																	●						●	●	□	□	●															
		120416	1.6																	●						●	●			●															
		120420	2.0																								●																		
Cast Iron	 Without Chipbreaker	SNMN 120408	0.8																	□							●																	D25 D34 D35 F79	
		120412	1.2																								●																		

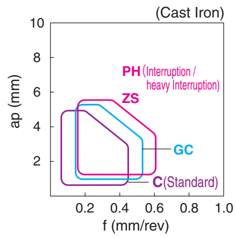
Applicable Chipbreaker Range
ap indicates radius

1



Heat-Resistant Alloys
Titanium Alloys
➡ B6

2



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

Inserts are sold in 10 piece boxes

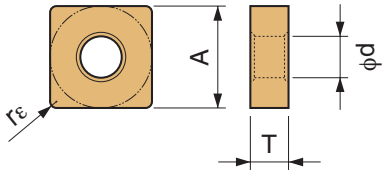
90° Square / Negative with Hole

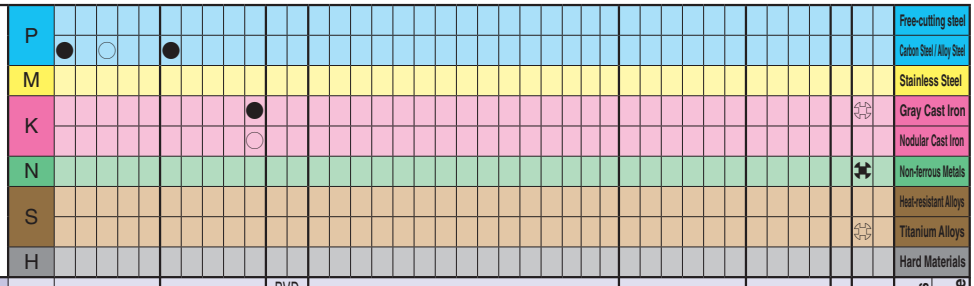
(mm)

Description	A	T	ϕd
SN_0903_	9.525	3.18	3.81
SN_1204_	12.70	4.76	5.16

(mm)

Description	A	T	ϕd
SN_1906_	19.05	6.35	7.94
SNMN1204_	12.70	4.76	-

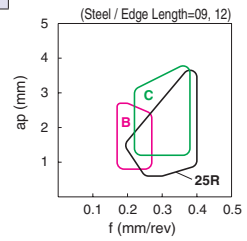




Insert Handed Insert shows Right-hand	Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium / Medium-Roughing	SNGG 090304R-B	0.4	●		●		●	●				●																													D12	
	SNGG 090304L-B	0.4	●		●		●	●				●																													D12	
	SNGG 090308R-B	0.8	●		●		●	●																																D13	
	SNGG 090308L-B	0.8	●		●		●	●																																D13	
-B : Finishing-Medium -C : Medium-Roughing	SNGG 120404R-C	0.4	●		●		●	●				●	●																									●			1
	SNGG 120404L-C	0.4	●		●		●	●				●	●																									●			1
	SNGG 120408R-C	0.8	●		●		●	●				●	●																									●			1
	SNGG 120408L-C	0.8	●		●		●	●				●	●																									●			1
	SNMG 120404R-C	0.4	●		●		●	●																																D12	
	SNMG 120404L-C	0.4	●		●		●	●																																D12	
	SNMG 120408R-C	0.8	●		●		●	●																																D13	
	SNMG 120408L-C	0.8	●		●		●	●																																D13	
																																							F73	
Medium - Roughing Low cutting force	SNGG 120404R-25R	0.4	●		●		●	●																																	
	SNGG 120404L-25R	0.4	●		●		●	●																																	
	SNGG 120408R-25R	0.8	●		●		●	●																																	
	SNGG 120408L-25R	0.8	●		●		●	●																																	

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item

How to read pages of "Turning Inserts" B13

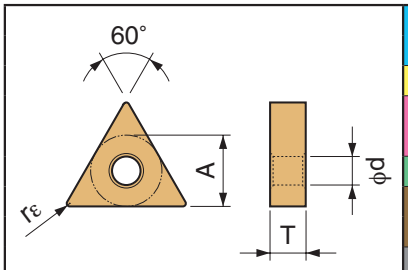
60° Triangle / Negative with Hole

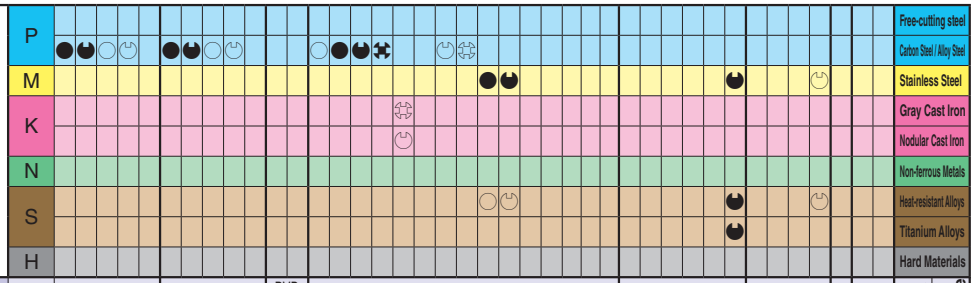
(mm)

Description	A	T	φd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



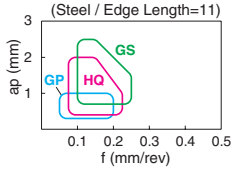


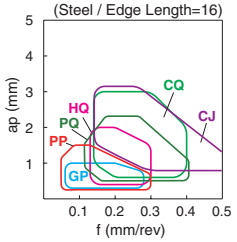
Insert		Description		Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		TNMG	160402PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D14	
			160404PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					D15	
			160408PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					F64	
			160412PP	1.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					F74	
																																											F75	
Finishing		TNMG	110404GP	0.4		●			●		●				●																													D14	
			110408GP	0.8		●			●		●				●																														F75	
Finishing		TNMG	160402GP	0.2	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●																							
			160404GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●																					D14	
			160408GP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																					D15	
Finishing-Medium		TNMG	160404PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					F64	
			160408PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					F74	
			160412PQ	1.2	●	●	●	○		●	●	●	○				●	●	●	●			●	●																					F75	1
Finishing-Medium		TNMG	110404HQ	0.4		●			●		●				●																													D14	
			110408HQ	0.8		●			●		●				●																														F75	
		TNMG	160404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																		D14	
			160408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●																		D15	
			160412HQ	1.2				○	●				○		●	○	●	●	●	●			●																					F64	
Finishing-Medium / Up Facing		TNMG	160404CQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●																					F74	
			160408CQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●																					F75	
			160412CQ	1.2		●		○	●		●		○		●	○	●	●	●	●	●	●	●																						
		TNMG	220408CQ	0.8													●	●	●	●		●	●																					D14	
			220412CQ	1.2													●	●	●	●		●	●																					F74	
Medium - Roughing		TNMG	110404GS	0.4		●			●		●								●	●			●																					D14	
			110408GS	0.8															●	●			●																					F75	
		TNMG	160404GS	0.4									○		●	○	●	●	●	●			●	●																						
			160408GS	0.8									○		●	○	●	●	●	●			●	●																					D14	
			160412GS	1.2											●																														F75	
Medium - Roughing		TNMG	160404PG	0.4	●	●				●	●						●	●	●	●																								D15	
			160408PG	0.8	●	●				●	●						●	●	●	●																								F64	
			160412PG	1.2		●					●						●	●	●	●																								F74	2
		TNMG	160404PS	0.4			●					●	○				●	●	●	●	●	●	●	●	●	●																		F75	
Medium - Roughing			160408PS	0.8			●					●	○				●	●	●	●	●	●	●	●	●	●																			
			160412PS	1.2													●	●	●	●		●	●	●	●	●																			
		TNMG	220404PS	0.4													●	●	●	●		●	●																						
			220408PS	0.8													●	●	●	●	●	●	●	●	●	●																		D14	
			220412PS	1.2													●	●	●	●		●	●	●		●																		F74	
			220416PS	1.6													●	●	●	●		●	●																						

Applicable Chipbreaker Range

ap indicates radius

1





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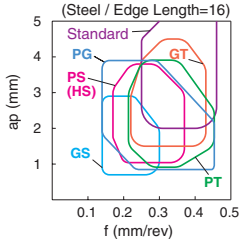
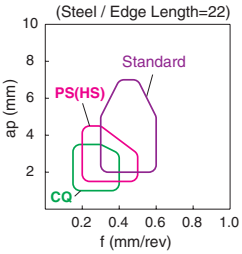




● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

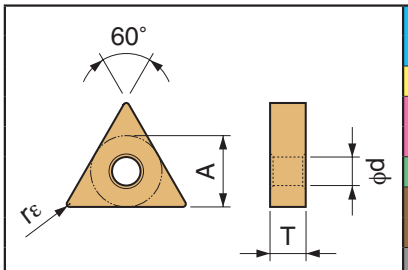
60° Triangle / Negative with Hole

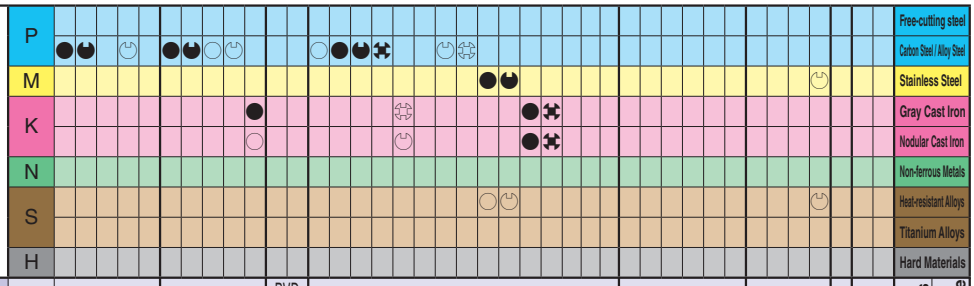
(mm)

Description	A	T	φd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



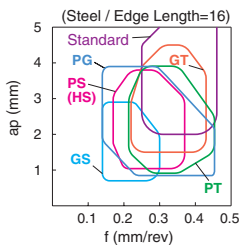


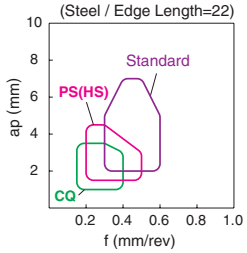
Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	TNMG 160404HS 160408HS 160412HS	0.4 0.8 1.2				○ ○ ○	○ ○ ○						○ ○ ○	○ ○ ○					○ ○ □	○ ○ ○																						D14 D15 F64 F74 F75	
	TNMG 220404HS 220408HS 220412HS	0.4 0.8 1.2					○ ○						○							○																								D14 F74	
Medium-Roughing / High Feed Rate	TNMG 160408PT 160412PT	0.8 1.2													● ●	● ●	● ●	● ●	● □	● ●	● ●	●		●																						
Medium-Roughing / High Feed Rate	TNMG 160408GT 160412GT	0.8 1.2									○		● ●	○ □	● ●	● ●	● ●	● ●		● ●	● ●																							D14 D15 F64 F74	1
Roughing	TNMG 160404 160408 160412 160416 160420	0.4 0.8 1.2 1.6 2.0	● ●	● ●	○ ○	● ● ●	● ● ●	● ● ●	● ● ●	● ○ ○	○ ○ ○	● ● ●	●		● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	○ ○ □	○ ○ □	● ● ●									●						F75	
	TNMG 220404 220408 220412	0.4 0.8 1.2					● ●								● ● ●	● ● ●	● ● ●	● ● ●	● □ ●	● ● ●	● ● ●				● ● ●	● ● ●	○ ○ ○		● □ □															D14 F74	
Roughing	TNMG 160408PH 160412PH	0.8 1.2													● ●	● ●	● ●	● ●		● □	● ●				● ●	● ●																		D14 D15 F64 F74 F75	2
	TNMG 220408PH 220412PH 220416PH	0.8 1.2 1.6													● ● ●	● ● ●	● ● ●	● ● ●		□ □ □	● ● ●	● ●																						D14 F74	
Single Sided / Roughing / High Feed Rate	TNMM 160408PX 160412PX	0.8 1.2															● ●	● ●		● ●	● □	●																						D14 D15 F64 F74 F75	3
	TNMM 220408PX 220412PX 220416PX	0.8 1.2 1.6															● ● ●	● ● ●		□ □ □	● ● ●	●																						D14 F74	

Applicable Chipbreaker Range

ap indicates radius

1





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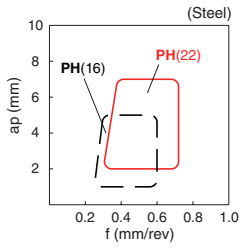

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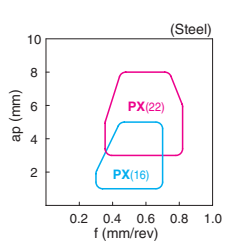


Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

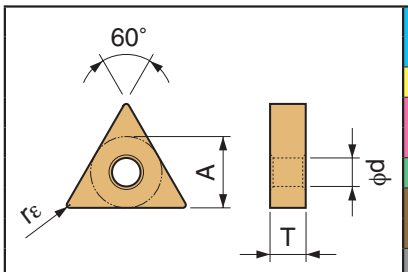
60° Triangle / Negative with Hole

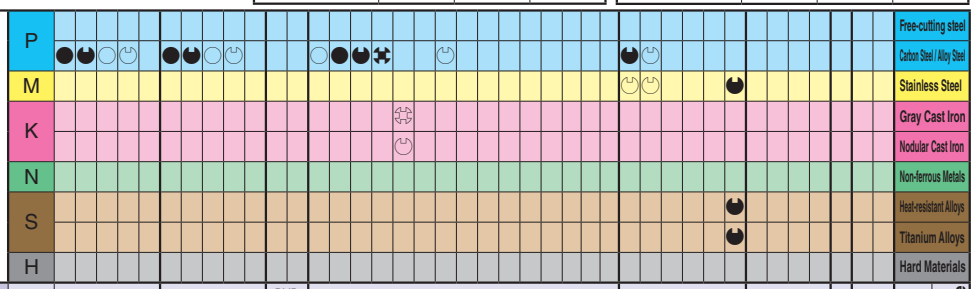
(mm)

Description	A	T	φd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16





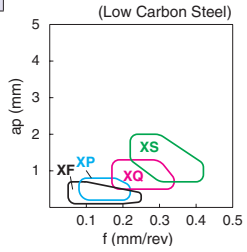
Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PVD Coated Cermet PV7005	PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Carbon Steel	TNMG 160404XF	0.4	●	●	●			●	●	●	○																																	
Finishing / Small ap	TNMG 160408XF	0.8	●	●	●			●	●	●	○																																	
Low Carbon Steel	TNMG 160404XP	0.4	●	●		○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																						D14 D15 F64	1
Finishing	TNMG 160408XP	0.8	●	●		○	●	●	●	●	○		●	○	●	●	●	●	●	●	●																							
Low Carbon Steel	TNMG 160404XQ	0.4	●	●		○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																						D14 D15 F64 F74 F75	1
Medium	TNMG 160408XQ	0.8	●	●		○	●	●	●	●	○		●	○	●	●	●	●	□	●	●																							
Low Carbon Steel	TNMG 160408XS	0.8		●		○	●		●		○		●	○	●	●	●	●		●	●																							
Roughing																																												
Finishing-Medium	TNGG 160401MFP-SK	<0.1																												●	●			●									
NEW	TNGG 160402MFP-SK	<0.2																												●	●			●								D14 D15 E41	2
Sharp Edge / Polished	TNGG 160404MFP-SK	<0.4																												●	●			●									
Medium - Roughing	TNGG 160404FP-TK	0.4																												●	●			●								D14 F64 F74 F75	2
Sharp Edge / Polished	TNGG 160408FP-TK	0.8																												●	●			●									

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

Applicable Chipbreaker Range

ap indicates radius

1



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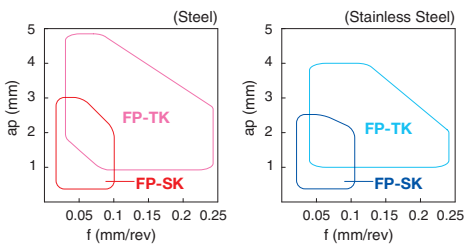


● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

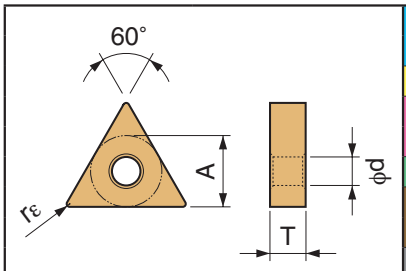
60° Triangle / Negative with Hole

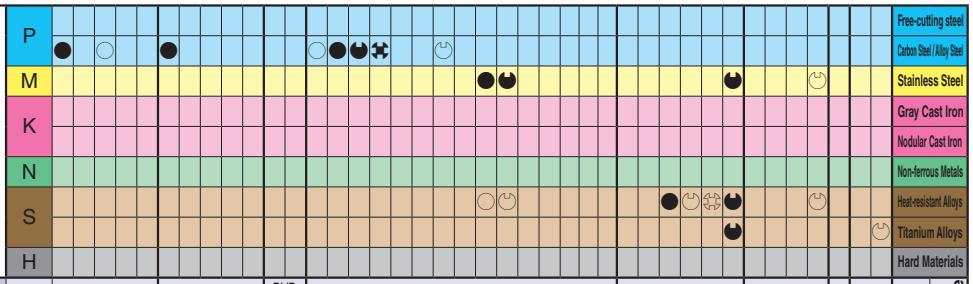
(mm)

Description	A	T	φd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



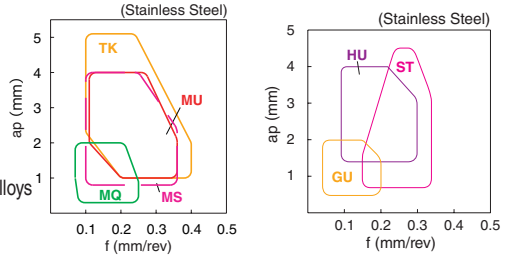


Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys — Medium-Roughing / Sharp Edge	TNGG 160404TK	0.4																													●	●									●		
	TNGG 160408TK	0.8																													●	●									●		
Medium-Roughing	TNMG 160404TK	0.4																					●	●														●					
	TNMG 160408TK	0.8																					●	●														●					
Finishing-Medium	TNMG 160404MQ	0.4																					●	●							●	●	●	●				●			●		
	TNMG 160408MQ	0.8																					●	●							●	●	●	●				●			●	D14 D15 F64 F74 F75	1
Medium-Roughing	TNMG 160404MS	0.4																					●	●							●	●	●	●				●			●		
	TNMG 160408MS	0.8																					●	●							●	●	●	●				●			●		
	TNMG 160412MS	1.2																					●	●							●	●	●	●				●			●		
Medium-Roughing	TNMG 160404MU	0.4																					●	●							●	●	●	●							●		
	TNMG 160408MU	0.8																					●	●							●	●	●	●							●		
Stainless Steel — Medium-Roughing	TNMG 160404R-ST	0.4	●		●		●	●							●	●	●	●		●	●		●	●														●					
	TNMG 160404L-ST	0.4	●		●		●	●							●	●	●	●		●	●		●	●														●					
	TNMG 160408R-ST	0.8					●								●	●	●	●		●	●		●	●														●					
	TNMG 160408L-ST	0.8					●								●	●	●	●		●	●		●	●														●					

Applicable Chipbreaker Range

ap indicates radius

1



Heat-resistant Alloys
Titanium Alloys
B6

Inserts are sold in 10 piece boxes

● : Std. Item

How to read pages of "Turning Inserts" B13

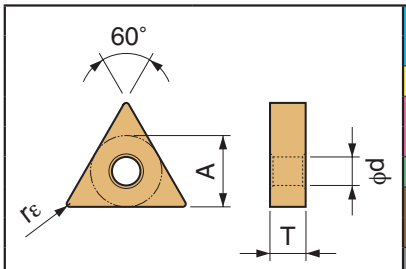
60° Triangle / Negative with Hole

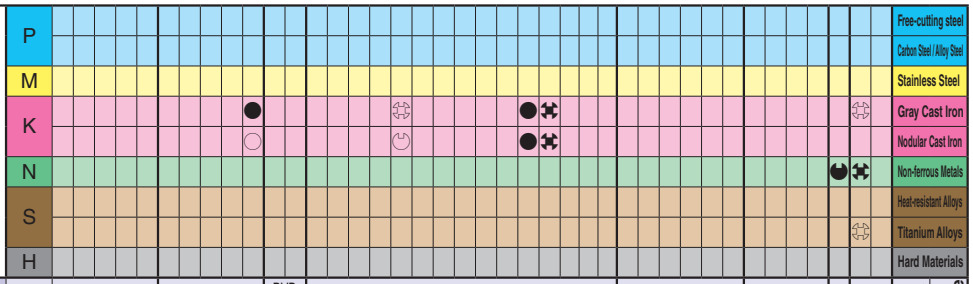
(mm)

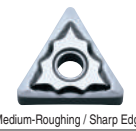
Description	A	T	ϕd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	ϕd
TN_1603_	9.525	3.18	3.81
TN_1604_	9.525	4.76	3.81
TN_2204_	12.70	4.76	5.16



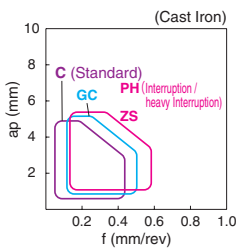


Insert Handed Insert shows Right-hand		Description		Dimension (mm) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
					TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Cast Iron	 Roughing	TNMG	160404C	0.4																						●	●	○	○	●													
			160408C	0.8																	●						●	●		○	●													
			160412C	1.2																							●				●													
Cast Iron	 Roughing	TNMG	160408ZS	0.8																	●						●	●	○	○	●												D14 D15 F64 F74 F75	1
			160412ZS	1.2																							●	○	□	●													
Cast Iron	 Roughing	TNMG	160408GC	0.8																	□						●	●	□	○	●													
			160412GC	1.2																	●						●				●													
Cast Iron	 Without Chipbreaker	TNGA	110304	0.4																																			●		D14	-
		TNGA	160404	0.4									●																											●		
			160408	0.8									●																											●		
		TNMA	160404	0.4					●				●								●						●	●	○	○	●													
			160408	0.8					●				●								●						●	●	○	○	●													
			160412	1.2																	●						●	●	○	○	●													
			160416	1.6																	□						●				●													
			160420	2.0																	□						●																	
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	TNGG	160404R-A3	0.4																																		●	●	D14 D15 F64 F74 F75	
			160404L-A3	0.4																																		●	●		
			160408R-A3	0.8																																		●	●		
			160408L-A3	0.8																																		●	●		
Non-ferrous Metals	 Medium-Roughing / Sharp Edge	TNGG	160404AH	0.4																																		●	●		2
			160408AH	0.8																																		●	●		
Non-ferrous Metals	 Medium-Roughing	TNMG	160404AH	0.4																																		●	●		
			160408AH	0.8																																		●	●		

Applicable Chipbreaker Range

ap indicates radius

1



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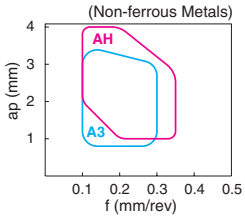

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60° Triangle / Negative with Hole

(mm)

Description	A	T	φd
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TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
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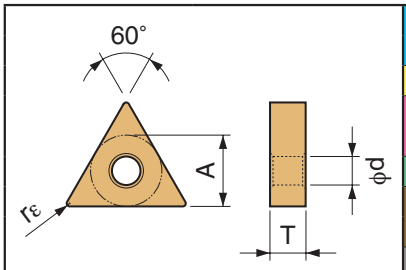


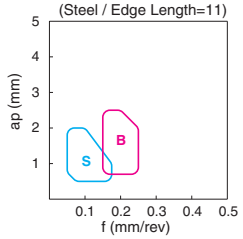
P: Free-cutting steel, Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron, Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys, Titanium Alloys
H: Hard Materials

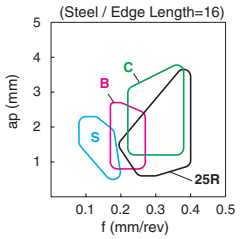
Insert (Handed Insert shows Right-hand)	Description		Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine — Sharp Edge / Precision	TNEG	160402R-SSF	0.2	●	●	●	○	●	●	●		○			○																					●							D14	
		160402L-SSF	0.2	●	●	●	○	●	●	●		○			○																					●							D15	
		160404R-SSF	0.4	●	●	●	○	●	●	●		○			○																					●							F64	
		160404L-SSF	0.4	●	●	●	○	●	●	●		○			○																					●							F74	
																																											F75	
Finishing — Surface Roughness Oriented	TNGG	110402R-S	0.2					●																																		●			
		110402L-S	0.2					●																																		●			
		110404R-S	0.4					●																																				D14	
		110404L-S	0.4					●																																				F75	
		110408R-S	0.8					●																																					
		110408L-S	0.8					●																																					
	TNGG	160401R-S	0.1		●		○			●		○			○																														
		160401L-S	0.1		●		○			●		○			○																													D14	
		160402R-S	0.2	●	●	●	○	●	●	●	●	○	●	●	○																●					●	●			●			D15	
		160402L-S	0.2	●	●	●	○	●	●	●	●	○	●	●	○																●					●	●			●			F64	
		160404R-S	0.4	●	●	●	○	●	●	●	●	○	●	●	○																●					●	●			●			F74	1
		160404L-S	0.4	●	●	●	○	●	●	●	●	○	●	●	○																●					●	●			●				
		160408R-S	0.8	●	●	●	○	●	●	●	●	○			○																●					●	●			●			F75	
		160408L-S	0.8	●	●	●	○	●	●	●	●	○			○																●					●	●			●				
Finishing-Medium — -B : Finishing-Medium	TNGG	110302R-B	0.2	●		●		●	●																																	●			
		110302L-B	0.2	●		●		●	●																																	●			
		110304R-B	0.4	●		●		●	●																																	●		D14	
		110304L-B	0.4	●		●		●	●																																	●			
	TNGG	160304R-B	0.4					●																																				-	
		160304L-B	0.4					●																																					
	TNGG	160402R-B	0.2	●	●	●	○	●	●	●	●	○			○																													●	D14	
		160402L-B	0.2	●	●	●	○	●	●	●	●	○			○																													●	D15	
		160404R-B	0.4	●	●	●	○	●	●	●	●	○	●		○																														F64	
		160404L-B	0.4	●	●	●	○	●	●	●	●	○	●		○																														F74	
		160408R-B	0.8	●		●		●	●																																			F75	
		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 catalogue

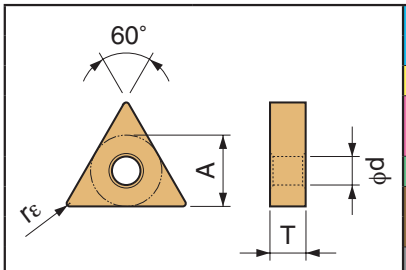
60° Triangle / Negative with Hole

(mm)

Description	A	T	φd
TN_1103_	6.35	3.18	2.26
TN_1104_	6.35	4.76	2.26

(mm)

Description	A	T	φd
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) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium-Roughing	TNGG	160402R-C	0.2		●		○			●		○			○																														
		160402L-C	0.2		●		○			●		○			○																														
		160404R-C	0.4	●	●	●	○	●	●	●	●	○	●	●	○																						●					●		D14	
		160404L-C	0.4	●	●	●	○	●	●	●	●	○	●	●	○																						●					●		D15	
		160408R-C	0.8	●	●	●	○	●	●	●	●	○	●	●	○																						●					●		F64	
		160408L-C	0.8	●	●	●	○	●	●	●	●	○	●	●	○																						●					●		F74	
		160412R-C	1.2	●		●		●	●			○	●																														F75	
		160412L-C	1.2	●		●		●	●			○	●																															
		160416R-C	1.6										●																															
	TNGG	220404R-C	0.4		●		○	●		●			●																														D14	
		220404L-C	0.4		●		○	●		●			●																															
		220408R-C	0.8		●		○	●		●			●																														F74	
		220408L-C	0.8		●		○	●		●			●																															
	TNGG	110402R	0.2					●																																			1
		110402L	0.2					●																																			
		110404R	0.4					●																																	D14	
		110404L	0.4					●																																	F75	
		110408R	0.8					●																																			
		110408L	0.8					□																																			
	TNMG	160404R-C	0.4	●	●		○	●	●	●	●	○			○																												D14	
		160404L-C	0.4	●	●		○	●	●	●	●	○			○																													
		160408R-C	0.8	●	●		○	●	●	●	●	○			○																												D15	
		160408L-C	0.8	●	●		○	●	●	●	●	○			○																												F64	
		160412R-C	1.2					●																																		F74	
Medium - Roughing	TNGG	160404R-25R	0.4	●	●	●	○	●	●	●		○			○																						●			●		●		F75	
		160404L-25R	0.4	●	●	●	○	●	●	●		○			○																						●			●		●			
		160408R-25R	0.8	●	●	●	○	●	●	●		○			○																						●			●		●			
		160408L-25R	0.8	●	●	●	○	●	●	●		○			□																						●			●		●			

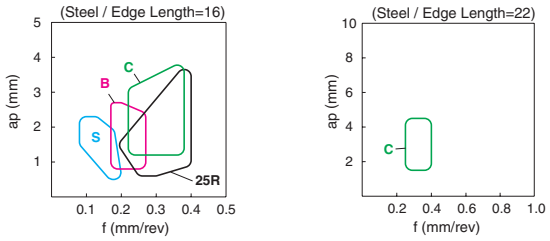
-C : Medium-Roughing

Low cutting force

Applicable Chipbreaker Range

ap indicates radius

1



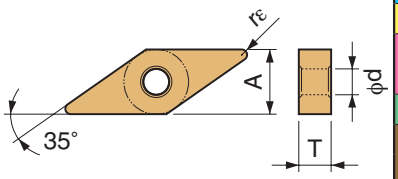
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

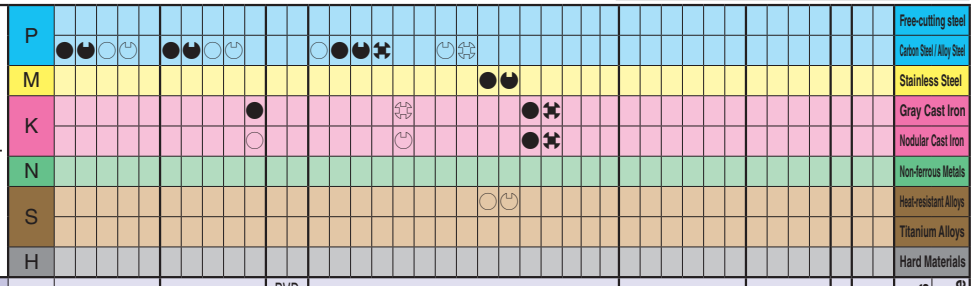
Inserts are sold in 10 piece boxes

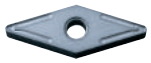
35° Rhombic / Negative with Hole

(mm)

Description	A	T	φd
VN_1604_	9.525	4.76	3.81



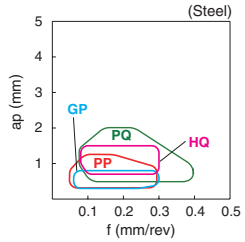


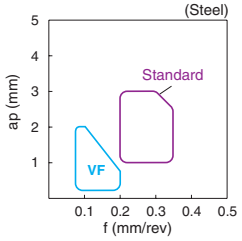
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		VNMG 160402PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		VNMG 160404PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		VNMG 160408PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		VNMG 160412PP	1.2	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
Finishing		VNMG 160402GP	0.2	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●																							
		VNMG 160404GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●																							
		VNMG 160408GP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●																							
Finishing-Medium	 NEW	VNMG 160404R-VC	0.4	●	●				●	●						●	●	●	●																									
		VNMG 160404L-VC	0.4	●	●				●	●						●	●	●	●																									
		VNMG 160408R-VC	0.8	●	●				●	●						●	●	●	●																									
		VNMG 160408L-VC	0.8	●	●				●	●						●	●	●	●																									
		VNMG 160412R-VC	1.2	●	●				●	●						●	●	●	●																									
		VNMG 160412L-VC	1.2	●	●				●	●						●	●	●	●																									
Finishing-Medium		VNMG 160404VF	0.4	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●																							
		VNMG 160408VF	0.8	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●																							
		VNMG 160412VF	1.2		●		○			●		○			○	●	●	●	●		●	●																							
Finishing-Medium		VNMG 160404PQ	0.4	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		VNMG 160408PQ	0.8	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
		VNMG 160412PQ	1.2	●	●	●	○		●	●	●	○				●	●	●	●		●	●																							
Finishing-Medium		VNMG 160404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●																							
		VNMG 160408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●																							
		VNMG 160412HQ	1.2		●		○	●		●		○		●	○	●	●	●	●	●	●	●	●																							
Medium		VNMG 160404TN-V	0.4					●																																			
		VNMG 160408TN-V	0.8					●																																			
		VNMG 160412TN-V	1.2					●																																			
Roughing		VNMG 160404	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●	●	●	●	●	●	●	●	●	○	○	●														
		VNMG 160408	0.8	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●	●	●	●	●	●	●	●	●	○	○	●														

D16
D17
D18
1

Applicable Chipbreaker Range
ap indicates radius

1





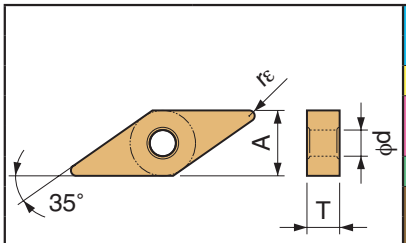
Inserts are sold in 10 piece boxes

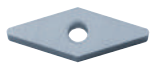
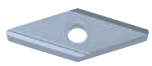
● : Std. Item ○ : Check Availability

35° Rhombic / Negative with Hole

(mm)

Description	A	T	φd
VN_1604_	9.525	4.76	3.81



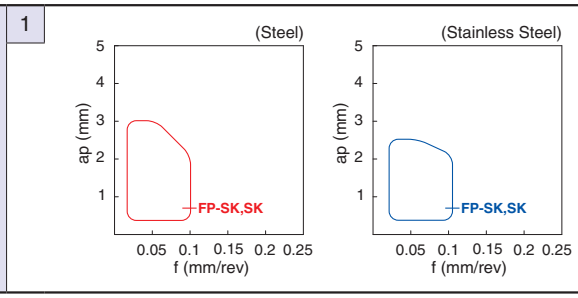
Insert (Handed Insert shows Right-hand)	Description	Dimension (mm) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium	NEW  Sharp Edge / Polished	VNGG 160402MFP-SK	<0.2																				●	●						●	●				●										
		VNGG 160404MFP-SK	<0.4																				●	●						●	●				●										
	NEW 	VNGG 160402M-SK	<0.2	●	●	●			●	●	●																																	1
		VNGG 160404M-SK	<0.4	●	●	●			●	●	●																																	
Stainless Steel / Heat-Resistant Alloys	 Finishing-Medium	VNMG 160404MQ	0.4																				●	●								●	●	●				●				●			
		VNMG 160408MQ	0.8																				●	●								●	●	●				●				●			
	 Medium-Roughing	VNMG 160404MS	0.4																				●	●								●	●	●				●				●		D16 D17 D18	2
		VNMG 160408MS	0.8																				●	●								●	●	●				●				●			
		VNMG 160412MS	1.2																				●	●								●	●	●				●				●			
	 Medium-Roughing	VNMG 160404MU	0.4																				●	●								●	●	●				●				●			
		VNMG 160408MU	0.8																				●	●								●	●	●				●				●			
Cast Iron	 Without Chipbreaker	VNGA 160404	0.4									●																														●		-
		VNGA 160408	0.8									●																														●		
Medium		VNGG 160402R	0.2	●	●	●	○	●	●	●	●	○		●	○																													
		VNGG 160402L	0.2	●	●	●	○	●	●	●	●	○		●	○																													
		160404R	0.4	●	●	●	○	●	●	●	●	○		●	○																													3
		160404L	0.4	●	●	●	○	●	●	●	●	○		●	○																													
		160408R	0.8	●	●	●		●	●	●		○																																
		160408L	0.8	●	●	●		●	●	●		○																																

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

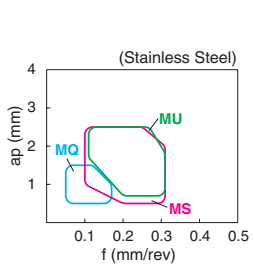
Applicable Chipbreaker Range

ap indicates radius

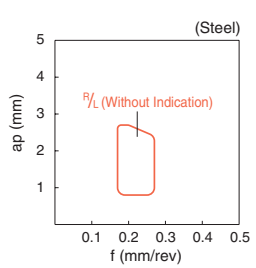
1



2



3



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

Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" ➡ B13

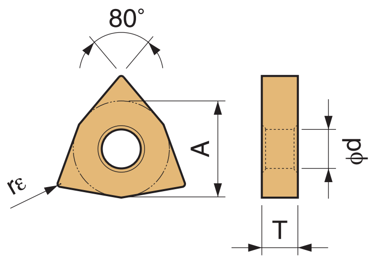
80° Trigon / Negative with Hole

(mm)

Description	A	T	ϕd
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	A	T	ϕd
WN_0804_	12.70	4.76	5.16



Cermet / MEGACOAT Cermet / PVD Coated Cermet

Insert	Description	rε (Dimension (mm))	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020
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													
With Wiper Edge  Finishing	WNMG 080404WP	0.4	●	●	●	○		●	●	●	○			○
	080408WP	0.8	●	●		○		●	●	●	○			○
With Wiper Edge  Finishing-Medium	WNMG 080404WQ	0.4	●	●	●	○		●	●	●	○		●	○
	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		●			●		●				●	
	060408GP	0.8		●			●		●				●	
	WNMG 080404GP	0.4	●	●	●	○	●	●	●	●	○		●	○
	080408GP	0.8	●	●	●	○	●	●	●	●	○		●	○
Finishing-Medium 	WNMG 080404PQ	0.4	●	●	●	○		●	●	●	○			
	080408PQ	0.8	●	●	●	○		●	●	●	○			
	080412PQ	1.2												
Finishing-Medium 	WNMG 06T304HQ	0.4					●							
	06T308HQ	0.8					●							
	WNMG 060404HQ	0.4		●			●		●				●	
	060408HQ	0.8		●			●		●				●	
	WNMG 080404HQ	0.4	●	●	●	○	●	●	●	●	○		●	○
	080408HQ	0.8	●	●	●	○	●	●	●	●	○		●	○
	080412HQ	1.2	●			○	●	●		●	○		●	○
Finishing-Medium / Up Facing 	WNMG 080404CQ	0.4	●	●	●	○		●	●	●	○		●	○
	080408CQ	0.8	●	●	●	○	●	●	●	●	○		●	○
	080412CQ	1.2		●		○	●		●		○			○
Finishing-Medium / Up Facing 	WNMG 080408CJ	0.8												
	080412CJ	1.2												

CVD Coated Carbide

Description	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	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															
WNMG 080404WP	●	●	●	●	●	●	●								
080408WP	●	●	●	●	●	●	●								
WNMG 080404WQ	●	●	●	●	□	●	●								
080408WQ	●	●	●	●	●	●	●								
080412WQ	●	●	●	●	●	●	●								
WNMG 080402PP	●	●	●	●											
080404PP	●	●	●	●											
080408PP	●	●	●	●											
080412PP	●	●	●	●											
WNMG 060404GP															
060408GP															
WNMG 080404GP															
080408GP															
WNMG 080404PQ	●	●	●	●		●	●								
080408PQ	●	●	●	●		●	●								
080412PQ	●	●	●	●		●	●								
WNMG 06T304HQ			●	●			●								
06T308HQ			●	●			●								
WNMG 060404HQ	●	●	●	●		●	●								
060408HQ	●	●	●	●		●	●								
WNMG 080404HQ	●	●	●	●	●	●	●	●	●	●					
080408HQ	●	●	●	●	●	●	●	●	●	●					
080412HQ	●	●	●	●		●	●	●							
WNMG 080404CQ	●	●	●	●	●	●	●								
080408CQ	●	●	●	●	●	●	●	●							
080412CQ	●	●	●	●	●	●	●	●							
WNMG 080408CJ	●	●	●	●	□	●	●	□							
080412CJ	●	●	●	●	□	●	●	●							

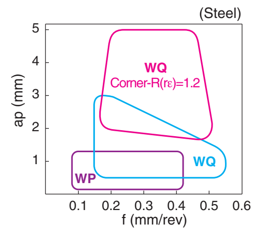
MEGACOAT / MEGACOAT NANO / PVD Coated Carbide / DLC / Carbide

Description	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	Ref. to 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															
WNMG 080404WP														D20 F77 F78	1
080408WP															
WNMG 080404WQ															
080408WQ															
080412WQ															
WNMG 080402PP															2
080404PP															
080408PP															
080412PP															
WNMG 060404GP														D20 F76	
060408GP															
WNMG 080404GP														D20 F77 F78	
080408GP															
WNMG 080404PQ															
080408PQ															
080412PQ															
WNMG 06T304HQ														-	
06T308HQ															
WNMG 060404HQ														D20 F76	
060408HQ															
WNMG 080404HQ										●				D20 F77 F78	
080408HQ										●					
080412HQ															
WNMG 080404CQ															
080408CQ															
080412CQ															
WNMG 080408CJ															
080412CJ															

Applicable Chipbreaker Range

ap indicates radius

1



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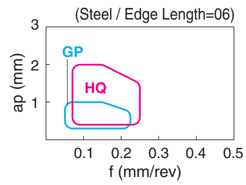
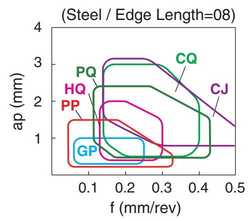




Inserts are sold in 10 piece boxes

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

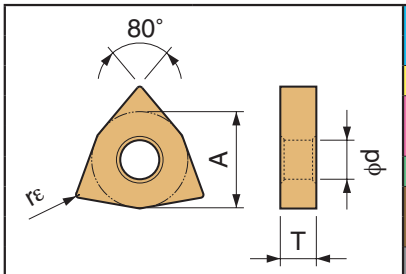
80° Trigon / Negative with Hole

(mm)

Description	A	T	φd
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	A	T	φd
WN_0804_	12.70	4.76	5.16

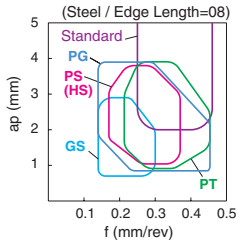


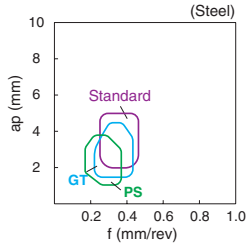
Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium - Roughing	WNMG 060404GS	0.4	●				●	●					●		●●	●●	●●	●●		●●	●●																								D20 F76	
	WNMG 060408GS	0.8	●				●	●					●		●●	●●	●●	●●		●●	●●																									
Medium - Roughing	WNMG 080404GS	0.4									○		●○		●●	●●	●●	●●		●●	●●																									
	WNMG 080408GS	0.8									○		●○		●●	●●	●●	●●		●●	●●																									
	WNMG 080412GS	1.2													●●	●●	●●	●●		●●	●●																									
Medium - Roughing	NEW WNMG 080404PG	0.4	●●					●●							●●	●●	●●	●●																	●										
	WNMG 080408PG	0.8	●●					●●							●●	●●	●●	●●																	●										
	WNMG 080412PG	1.2													●●	●●	●●	●●																	●										
	WNMG 080416PG	1.6													●●	●●	●●	●●																											
Medium - Roughing	WNMG 080404PS	0.4			●					●○	○				●●	●●	●●	●●	●●	●●	●●	●●	●●																	●					
	WNMG 080408PS	0.8			●					●○	○				●●	●●	●●	●●	●●	●●	●●	●●	●																	●					
	WNMG 080412PS	1.2													●●	●●	●●	●●	●●	●●	●●		●																						
	WNMG 080416PS	1.6													●●	●●	●●	●●		●●	●●																								
Medium - Roughing	WNMG 080404HS	0.4				○	○						○	○						○	○																								1
	WNMG 080408HS	0.8				○	○						○	○						○	○																								
	WNMG 080412HS	1.2				□	○						○	○						□	○																								
Medium-Roughing / High Feed Rate	WNMG 080408PT	0.8													●●	●●	●●	●●	●●	●●	●●	●●	●●																							D20 F77 F78	
	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													●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	○	○	○																	
Roughing	NEW WNMG 080408PH	0.8													●●	●●	●●	●●							●●	●●																			2
	WNMG 080412PH	1.2													●●	●●	●●	●●							●●	●●																			3

Applicable Chipbreaker Range

ap indicates radius

1





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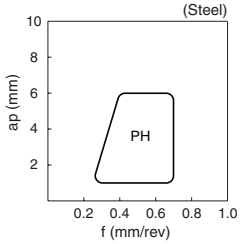

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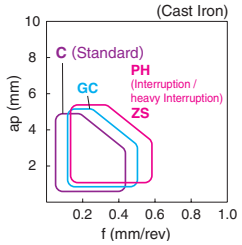


● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

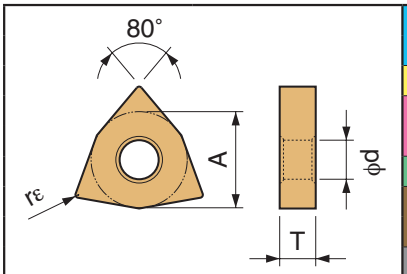
80° Trigon / Negative with Hole

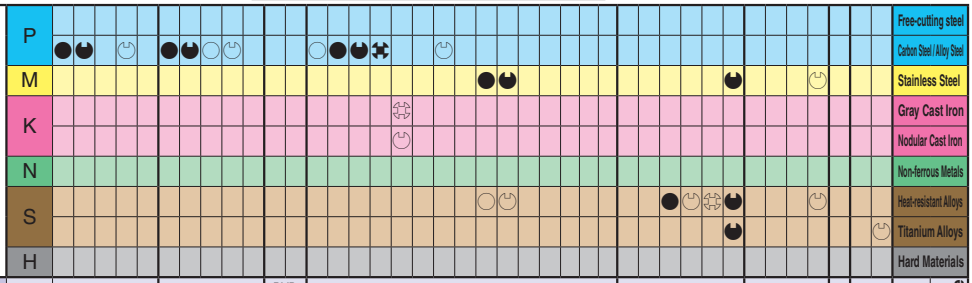
(mm)

Description	A	T	φd
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	A	T	φd
WN_0804_	12.70	4.76	5.16



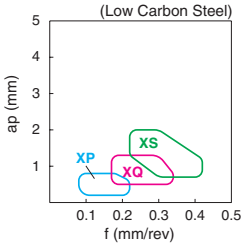


Insert		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Carbon Steel	Finishing	WNMG 080404XP	0.4	●	●		○	●	●	●	●	○		●	○	●	●	●	●		●	●																				
		WNMG 080408XP	0.8	●	●		□	●	●	●	●	○		●	○	●	●	●	●		●	●																				
Low Carbon Steel	Medium	WNMG 080404XQ	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●	□	●	●																			1	
		WNMG 080408XQ	0.8	●	●		○	●	●	●	●	○		●	○	●	●	●	●		●	●																				
Low Carbon Steel	Roughing	WNMG 080408XS	0.8		●		□			●		○		●	○	●	●	●	●	□	●	●																				
Stainless Steel / Heat-Resistant Alloys	Medium-Roughing / Sharp Edge	WNGG 080404TK	0.4																											●	●							●	D20 F77 F78	
		WNGG 080408TK	0.8																											●	●							●		
	Medium - Roughing	WNMG 080404TK	0.4																					●	●					●	●	●					●			
		WNMG 080408TK	0.8																					●	●					●	●	●					●			
	Finishing-Medium	WNMG 080404MQ	0.4																					●	●					●	●	●	●				●		2	
		WNMG 080408MQ	0.8																					●	●					●	●	●	●				●			
	Medium - Roughing	WNMG 080404MS	0.4																					●	●					●	●	●	●				●			
		WNMG 080408MS	0.8																					●	●					●	●	●	●				●			
		WNMG 080412MS	1.2																					●	●					●	●	●	●				●			
	Medium - Roughing	WNMG 080404MU	0.4																					●	●					●	●	●	●				●			
		WNMG 080408MU	0.8																					●	●					●	●	●	●				●			

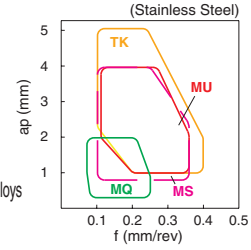
Applicable Chipbreaker Range

ap indicates radius

1 (Low Carbon Steel)



2 (Stainless Steel)



Heat-resistant Alloys
Titanium Alloys
B6

Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

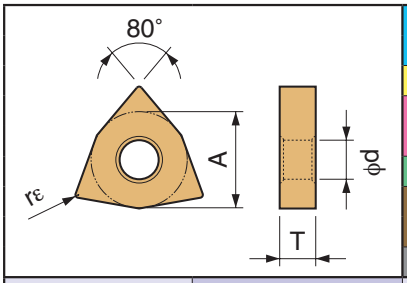
80° Trigon / Negative with Hole

(mm)

Description	A	T	φd
WN_06T3_	9.525	3.97	3.81
WN_0604_	9.525	4.76	3.81

(mm)

Description	A	T	φd
WN_0804_	12.70	4.76	5.16

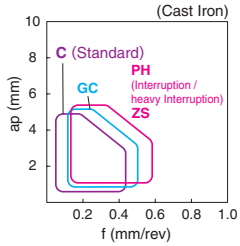


Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Cast Iron	Roughing	WNMG 080404C 080408C 080412C	0.4 0.8 1.2																	● ●						● ●	● ●	○ ○	○ ○ □	● ● ●														
Cast Iron	Roughing	WNMG 080408ZS 080412ZS	0.8 1.2																	● ●	●					● ●	● ●	○ ○	○ ○	● ●														1
Cast Iron	Roughing	WNMG 080408GC 080412GC	0.8 1.2																	● □						● ●	● □	○ □	○ □	● ●													D20 F77 F78	
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																																			● ●	● ●			2
Finishing	Surface Roughness Oriented	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					● ● ● ● ● ●					● ● ● ●																											● ● ● ● ● ●		D20 F76	3
Medium		WNGG 060404R 060404L	0.4 0.4					● ●																															● ●			

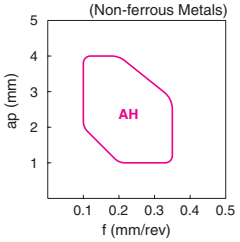
Applicable Chipbreaker Range

ap indicates radius

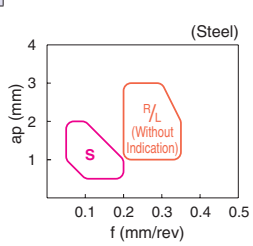
1 (Cast Iron)



2 (Non-ferrous Metals)



3 (Steel)



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

Inserts are sold in 10 piece boxes

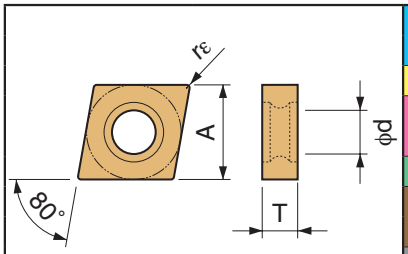
Turning Indexable Inserts

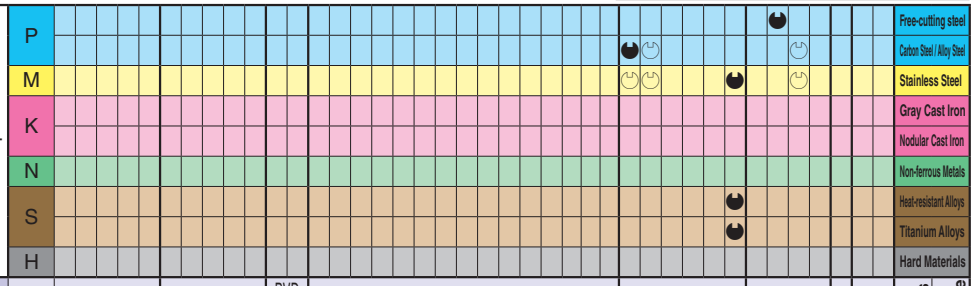
How to read pages of "Turning Inserts" B13

Small Double Sided Tools / 80° Rhombic

(mm)

Description	A	T	φd
CN_U0703_	7.5	3.18	3.6

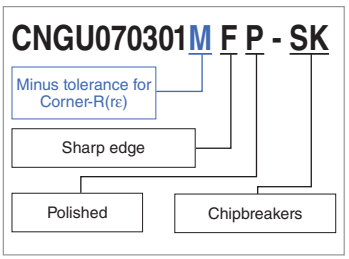


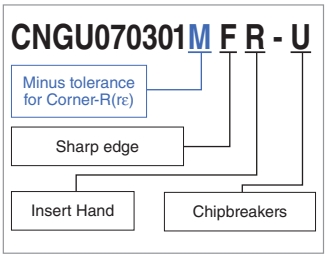


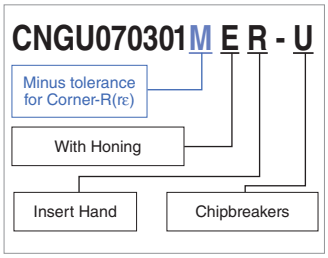
Insert Handed Insert shows Right-hand		Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
				TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Finishing-Medium	Sharp Edge	CNGU 070301MF-SK 070302MF-SK	<0.1 <0.2																																● ●							E38	B48 1
Finishing-Medium	Sharp Edge / Polished	CNGU 070301MFP-SK 070302MFP-SK	<0.1 <0.2																										● ●	● ●			● ●									
Medium - Roughing	With Honing	CNMU 070302E-GK 070304E-GK	0.2 0.4																										● ●	● ●			● ●		● ●		● ●					
Finishing	Sharp Edge	CNGU 0703005MFR-F 070301MFR-F 070302MFR-F 070304MFR-F	<0.05 <0.1 <0.2 <0.4																										● ● ● ●	● ● ● ●			● ● ● ●		□ □ □ □	□ □ □ □	□ □ ● □					
Low Feed	Sharp Edge	CNGU 0703005MFR-U 070301MFR-U 070302MFR-U 070304MFR-U	<0.05 <0.1 <0.2 <0.4																										● ● ● ●	● ● ● ●			● ● ● ●		□ □ □ ●	□ □ □ ●	● ● ● ●					
Low Feed	With Honing	CNGU 070301MER-U 070302MER-U 070304MER-U	<0.1 <0.2 <0.4																																● ● ●							

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

Small Double Sided Tools Identification System







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

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

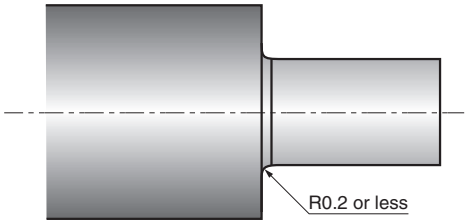


Fig.1 Example of a specified corner-R in the drawing

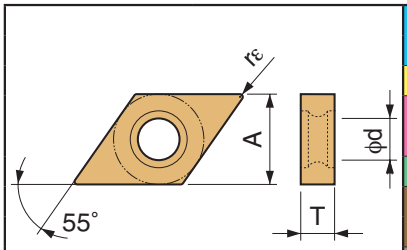
Inserts are sold in 10 piece boxes

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

Small Double Sided Tools / 55° Rhombic

(mm)

Description	A	T	φd
DN_U0803_	7.0	3.18	3.6

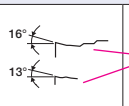
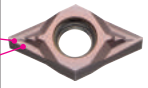
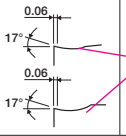
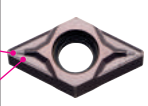
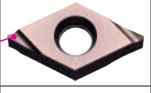
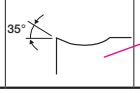
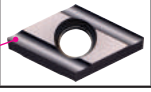


P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide													MEGACOAT MEGACOAT NANO					PVD Coated Carbide			DLC	Carbide			Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
				TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Finishing-Medium	Sharp Edge	DNGU 080301MF-SK	<0.1																																	●						E38	E48 2
		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 0803005MFR-F	<0.05																													●						□					
		DNGU 080301MFR-F	<0.1																												●	●			●		□	●					
		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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

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 to light machining with low cutting force.
Low Feed	U			Good chip control at low feed rate and varied ap with low cutting force.

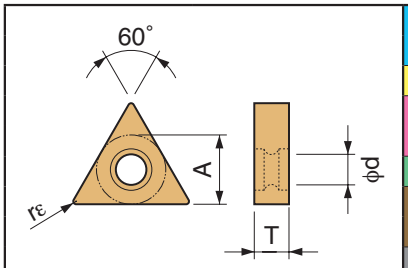
● : Std. Item □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

Small Double Sided Tools / 60° Triangle

(mm)

Description	A	T	φd
TN_U0903_	5.56	3.18	3.0



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

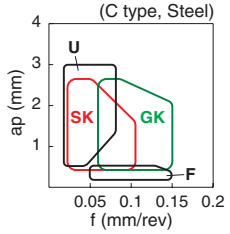
Insert (Handed Insert shows Right-hand)		Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
				TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Finishing	 Sharp Edge	TNGU 0903005MFR-F	<0.05																											●	●			●		●	●					
		TNGU 090301MFR-F	<0.1																											●	●			●		●	●					
		TNGU 090302MFR-F	<0.2																											●	●			●		●	●					
		TNGU 090304MFR-F	<0.4																											●	●			●		●	●					
Low Feed	 Sharp Edge	TNGU 0903005MFR-U	<0.05																											●	●			●		●	●				E39	3
		TNGU 090301MFR-U	<0.1																											●	●			●		●	●					
		TNGU 090302MFR-U	<0.2																											●	●			●		●	●					
		TNGU 090304MFR-U	<0.4																											●	●			●		●	●					
Low Feed	 With Honing	TNGU 090301MER-U	<0.1																																	□	□					
		TNGU 090302MER-U	<0.2																																	□	●					
		TNGU 090304MER-U	<0.4																																	□	●					

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

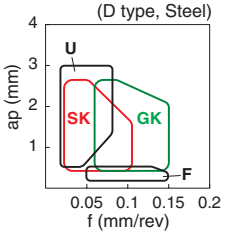
Applicable Chipbreaker Range

ap indicates radius

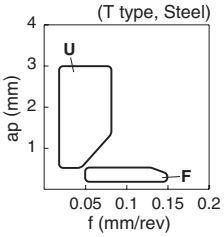
1



2



3



Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

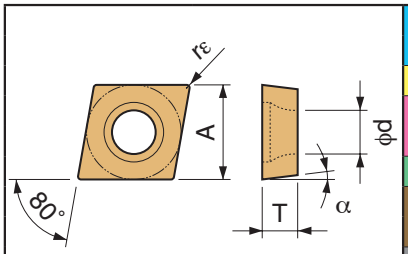
(mm)

80° Rhombic / Positive with Hole

*Thickness of CC_0301_ and CC_0401_ are different

Description	A	T	φd	α
*CC_0301_	3.5	1.4	1.9	7°
*CC_0401_	4.3	1.8	2.3	7°

Description	A	T	φd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°



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) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
					TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Minute ap	Sharp Edge	*CCGT	030101M-CF	<0.1																															●	●					F19	
			030102M-CF	<0.2																															●	●						
		*CCGT	040101M-CF	<0.1																															●	●						
			040102M-CF	<0.2																															●	●						
Minute ap	Sharp Edge / Polished	*CCGT	030101MP-CF	<0.1																											●	●			●			●		●	F39	
			030102MP-CF	<0.2																											●	●			●			●		●		
		*CCGT	040101MP-CF	<0.1																											●	●			●			●		●		
			040102MP-CF	<0.2																											●	●			●			●		●		
Finishing	Sharp Edge	CCGT	060201MF-GF	<0.1																																●					1	
			060202MF-GF	<0.2																																●						
		CCGT	09T301MF-GF	<0.1																																●						
			09T302MF-GF	<0.2																																●						
			09T304MF-GF	<0.4																																●						
Finishing	Sharp Edge / Polished	CCGT	060201MFP-GF	<0.1																											●	●			●			●				
			060202MFP-GF	<0.2																											●	●			●			●				
			060204MFP-GF	<0.4																											●	●			●			●				
		CCGT	09T301MFP-GF	<0.1																											●	●			●			●				
			09T302MFP-GF	<0.2																											●	●			●			●				
			09T304MFP-GF	<0.4																											●	●			●			●				
Finishing	Sharp Edge / Polished	NEW 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	NEW 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																																●						
		CCGT	09T301MF-GQ	<0.1																																●						
			09T302MF-GQ	<0.2																																●						
			09T304MF-GQ	<0.4																																●						

Ref. to the table below

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

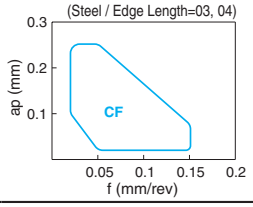
Insert Description	Ref. to Page for Applicable Toolholders
CC..0602 type	**E22,E23,E34,F39**
CC..09T3 type	**E22,E23,E34,F39,F65**

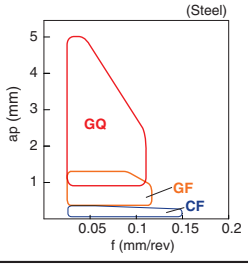
Applicable Chipbreaker Range

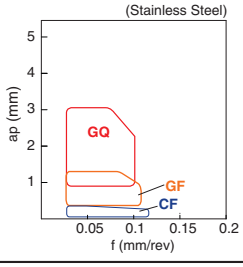
ap indicates radius

1

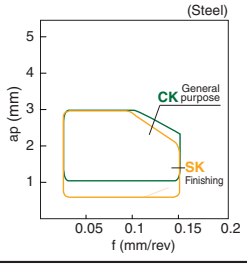
· Chip control Oriented

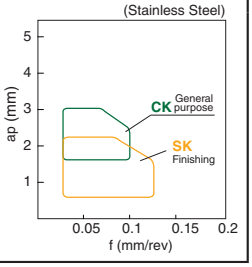






· Low cutting force





● : Std. Item

Inserts are sold in 10 piece boxes

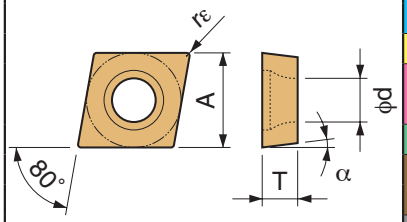
Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

(mm)

Description	A	T	φd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°

80° Rhombic / Positive with Hole



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

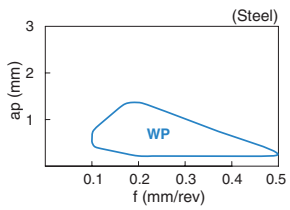
Insert	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium	 Sharp Edge / Polished	CCGT 060201MFP-GQ	<0.1	●	●				●	●						●	●	●												●	●			●				●							B49
		CCGT 060202MFP-GQ	<0.2	●	●				●	●						●	●	●												●	●			●				●							
		CCGT 060204MFP-GQ	<0.4	●	●				●	●						●	●	●												●	●			●				●							
		CCGT 09T301MFP-GQ	<0.1	●	●				●	●						●	●	●												●	●			●				●							1
		CCGT 09T302MFP-GQ	<0.2	●	●				●	●						●	●	●												●	●			●				●							
		CCGT 09T304MFP-GQ	<0.4	●	●				●	●						●	●	●												●	●			●				●							
With Wiper Edge	 NEW Finishing	CCMT 060202WP	0.2	●	●				●	●						●	●	●	●											●	●													
		CCMT 060204WP	0.4	●	●				●	●						●	●	●	●											●	●													
		CCMT 09T304WP	0.4	●	●				●	●						●	●	●	●											●	●													1
		CCMT 09T308WP	0.8	●	●				●	●						●	●	●	●											●	●													
Finishing		CCMT 060202PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●											●	●					●								
		CCMT 060204PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●											●	●					●								
		CCMT 09T302PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●											●	●					●								
		CCMT 09T304PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●											●	●					●								
		CCMT 09T308PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●											●	●					●								
Finishing-Medium		CCMT 060202GK	0.2	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●						●						●	●		●	●				
		CCMT 060204GK	0.4	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●						●						●	●		●	●				
		CCMT 09T302GK	0.2	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●						●						●	●		●	●				
		CCMT 09T304GK	0.4	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●						●						●	●		●	●				
		CCMT 120404GK	0.4	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●												●			●				E23	
		CCMT 120408GK	0.8	●	●	●	○		●	●	●	○		○		●	●	●	●		●	●	●	●												●			●	●				
		CCMT 120412GK	1.2											□		●	●	●		□	●	●		●												●			□	●				
Finishing-Medium		CCMT 060202HQ	0.2	●	●	●	○	●	●	●	●	○	●	○		●	●	●	●		●	●	●	●						●					●	●			●	●			
		CCMT 060204HQ	0.4	●	●	●	○	●	●	●	○	●	●	○		●	●	●	●		●	●	●	●						●					●	●			●	●			
		CCMT 09T302HQ	0.2	●	●	●	○	●	●	●	●	○	●	○		●	●	●	●		●	●	●	●						●					●	●			●	●			
		CCMT 09T304HQ	0.4	●	●	●	○	●	●	●	○	●	●	○		●	●	●	●		●	●	●	●						●					●	●			●	●			
		CCMT 09T308HQ	0.8	●	●	●	○	●	●	●	○		●	○		●	●	●	●		●	●	●	●						●					●	●			●	●			
Medium		CCGT 060201	0.1	●	●	●	○	●	●	●	○		●	○																							●							
		CCGT 060202	0.2	●	●	●	○	●	●	●	○		●	○																							●							
		CCGT 060204	0.4	●	●	●	○	●	●	●	○		●	○																							●							
		CCGT 09T301	0.1	●	●	●	○	●	●	●	○		●	○																							●							
		CCGT 09T302	0.2	●	●	●	○	●	●	●	○		●	○																							●							
		CCGT 09T304	0.4	●	●	●	○	●	●	●	○		●	○																							●							
		CCMT 09T308	0.8	●	●	●	○	●	●		○	●	●	□	●	●	●	●	●	●	●		●	●	●	●		○	●	●						●	●		●	●				
		CCGT 0602005M	<0.05																																			●					
		CCGT 060201M	<0.1																																			●					
		CCGT 060202M	<0.2																																			●					
		CCGT 060204M	<0.4																																			●					
		CCGT 09T3005M	<0.05																																			●					
		CCGT 09T301M	<0.1																																			●					
		CCGT 09T302M	<0.2																																			●					
		CCGT 09T304M	<0.4																																			●					

Ref. to the table below B49

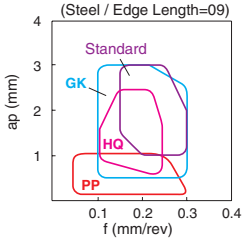
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

1



2



Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

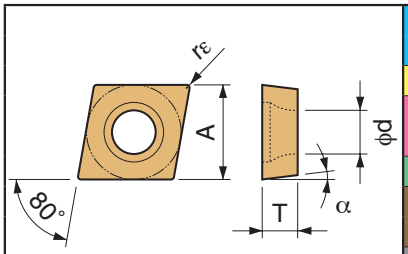
(mm)

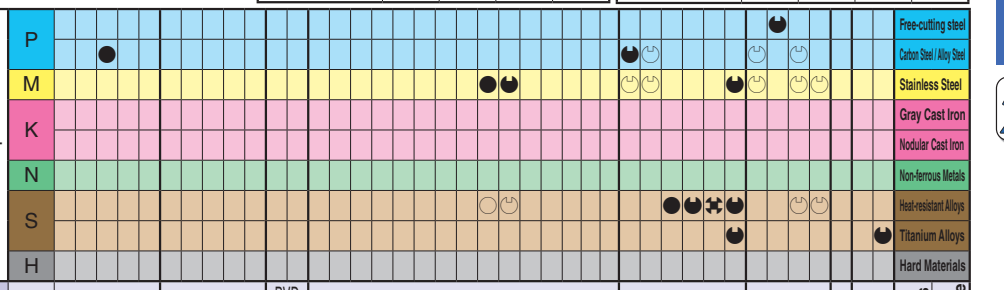
80° Rhombic / Positive with Hole

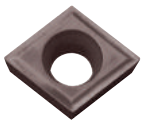
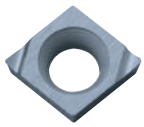
*Thickness of CC_0301_ and CC_0401_ are different (mm)

Description	A	T	ϕd	α
*CC_0301_	3.5	1.4	1.9	7°
*CC_0401_	4.3	1.8	2.3	7°

Description	A	T	ϕd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°





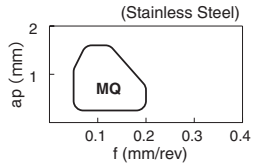
Insert (Handed Insert shows Left-hand)		Description		Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	 Sharp Edge	CCGT	0602005MF	<0.05																											●	●			●			□	●				Ref. to the table below B49	B50 2
			060201MF	<0.1																											●	●			●			□	●					
			060202MF	<0.2																											●	●			●			●	●					
			060204MF	<0.4																											●	●			●			●	●					
		CCGT	09T3005MF	<0.05																											●	●			●				●					
			09T301MF	<0.1																											●	●			●			●	●					
			09T302MF	<0.2																											●	●			●			●	●					
			09T304MF	<0.4																											●	●			●			●	●					
Stainless Steel / Heat-Resistant Alloys	 Finishing-Medium	CCMT	09T304MQ	0.4																					●	●							●	●	●			●					1
			09T308MQ	0.8																					●	●							●	●	●			●					
Finishing	Super Fine  Sharp Edge / Precision	*CCET	0301003R-FSF	0.03																																●							F19 F39 2
			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																																●								
			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			●		●																												●								
		*CCET	0301005MR-FSF	<0.05																														●										
			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	0401005MR-FSF	<0.05																														●					□				
			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																														●					●				

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

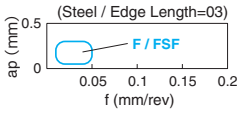
Applicable Chipbreaker Range

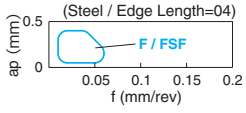
ap indicates radius

1



2





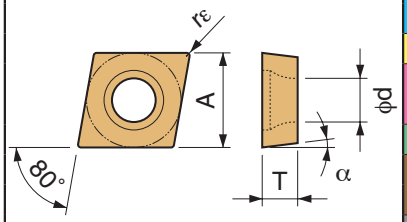
● : Std. Item □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

80° Rhombic / Positive with Hole

*Thickness of CC_0301_ and CC_0401_ are different (mm)

Description	A	T	φd	α
*CC_0301_	3.5	1.4	1.9	7°
*CC_0401_	4.3	1.8	2.3	7°



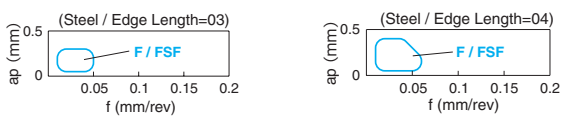
P: Free-cutting steel / Carbon Steel / Alloy Steel
M: Stainless Steel
K: Gray Cast Iron / Nodular Cast Iron
N: Non-ferrous Metals
S: Heat-resistant Alloys / Titanium Alloys
H: Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing NEW	*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																																					●						F19 F39	1
	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 F39	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			●		●				○																												●				●			
Sharp Edge	040104L-F	0.4			●	○	●			●	○		●	○																									●				●			
Finishing	*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 0401005MR-F	<0.05																													●													
	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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range ap indicates radius

1



Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" ➡ B13

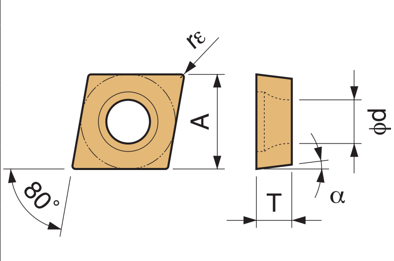
B

Insert (Turning)

80° Rhombic / Positive with Hole

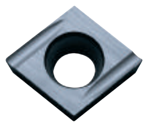
(mm)

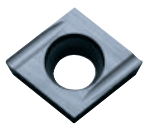
Description	A	T	φd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°



		TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	
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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed / Super Fine / Sharp Edge / Precision	CCET	0602003FR-USF	0.03																																		●							Ref. to the table below B49	1
		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																												●							●					
Low Feed / NEW / 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																											●					●					●				
Low Feed / Sharp Edge	CCGT	0602003FR-U	0.03																																		●					●		
		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		●		●																												●					●		

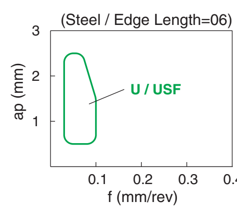


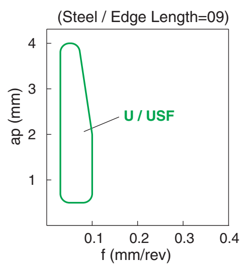


· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

1





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

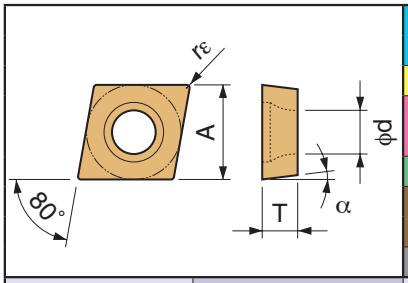
Inserts are sold in 10 piece boxes

How to read pages of "Turning Inserts" B13

(mm)

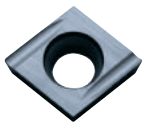
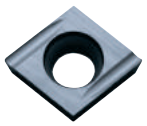
Description	A	T	φd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°

80° Rhombic / Positive with Hole



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

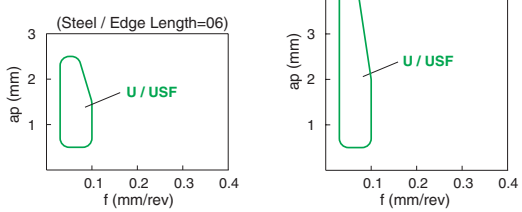
Insert (Handed Insert shows Left-hand)	Description		Dimension (mm) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide														MEGACOAT MEGACOAT NANO					PVD Coated Carbide			DLC	Carbide			Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
				TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Low Feed	 Sharp Edge	CCGT 0602005MFR-U	<0.05																											●					●	●	●					Ref. to the table below B49	1
		CCGT 0602005MFL-U	<0.05																											●					●	□	●						
		CCGT 060201MFR-U	<0.1																											●					●	●	●						
		CCGT 060201MFL-U	<0.1																											●					●	□	●						
		CCGT 060202MFR-U	<0.2																											●					●	●	●						
		CCGT 060202MFL-U	<0.2																											●					●	●	●						
		CCGT 060204MFR-U	<0.4																											●							●						
		CCGT 060204MFL-U	<0.4																											●							●						
		CCGT 09T3005MFR-U	<0.05																											●					●	●	●						
		CCGT 09T3005MFL-U	<0.05																											●					●		●						
		CCGT 09T301MFR-U	<0.1																											●					●	●	●						
		CCGT 09T301MFL-U	<0.1																											●					●	□	●						
		CCGT 09T302MFR-U	<0.2																											●					●	●	●						
		CCGT 09T302MFL-U	<0.2																											●					●	●	●						
		CCGT 09T304MFR-U	<0.4																											●							●						
		CCGT 09T304MFL-U	<0.4																											●							●						
Low Feed	 With Honing	CCGT 060201ER-U	0.1	●		●		●	●			○																							●								
		CCGT 060201EL-U	0.1	●		●		●	●			○																							●								
		CCGT 060202ER-U	0.2	●	●	●	○	●	●	●		○																							●								
		CCGT 060202EL-U	0.2	●	●	●	○	●	●	●		○		○																						●								
		CCGT 060204ER-U	0.4	●	●	●	○	●	●	●		○																							●								
		CCGT 060204EL-U	0.4	●	●	●	○	●	●	●		○		○																						●								
		CCGT 09T301ER-U	0.1	●		●		●	●			○																							●								
		CCGT 09T301EL-U	0.1	●		●		●	●			○																							●								
		CCGT 09T302ER-U	0.2	●	●	●	○	●	●	●		○																							●								
		CCGT 09T302EL-U	0.2	●		●		●	●			○																							●								
		CCGT 09T304ER-U	0.4	●	●	●	○	●	●	●		○																							●								
		CCGT 09T304EL-U	0.4	●		●		●	●			○																							●								
		CCGT 060201MER-U	<0.1																																			□						
		CCGT 060201MEL-U	<0.1																																			□						
		CCGT 060202MER-U	<0.2																																			●						
		CCGT 060202MEL-U	<0.2																																			●						
		CCGT 060204MER-U	<0.4																																			●						
		CCGT 060204MEL-U	<0.4																																			●						
		CCGT 09T301MER-U	<0.1																																			●						
		CCGT 09T301MEL-U	<0.1																																			□						
		CCGT 09T302MER-U	<0.2																																			●						
		CCGT 09T302MEL-U	<0.2																																			●						
		CCGT 09T304MER-U	<0.4																																			●						
		CCGT 09T304MEL-U	<0.4																																			●						

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

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

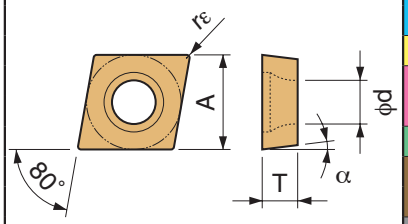
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

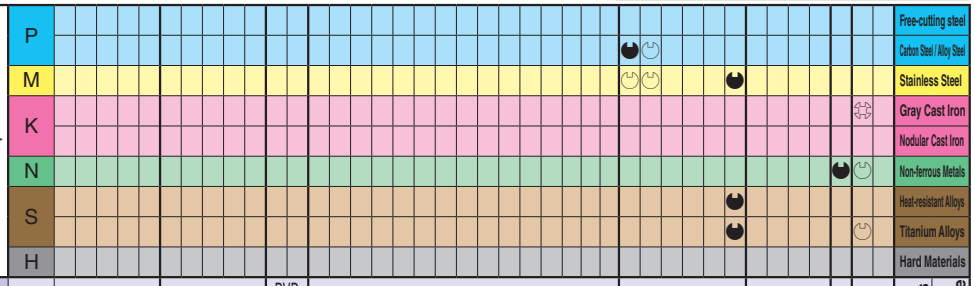
How to read pages of "Turning Inserts" B13

(mm)

Description	A	T	ϕd	α
CC_0602_	6.35	2.38	2.8	7°
CC_09T3_	9.525	3.97	4.4	7°
CC_1204_	12.7	4.76	5.5	7°

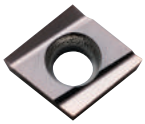
80° Rhombic / Positive with Hole



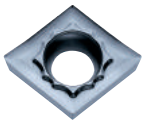


Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed	CCET 0602005MFR-J	<0.05																												●	●			●						●	●			
	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																												●	●			●										
Non-ferrous Metals	CCGT 09T304AH	0.4																																					●	●			
	09T308AH	0.8																																					●	●			
Non-ferrous Metals	CCGT 09T302R-A3	0.2																																					●	●			
	09T302L-A3	0.2																																					●	●			
	09T304R-A3	0.4																																					●	●			
	09T304L-A3	0.4																																					●	●			
	09T308R-A3	0.8																																					●	●			
	09T308L-A3	0.8																																					●	●			
	CCGT 120402R-A3	0.2																																					●	●			
	120402L-A3	0.2																																					●	●			
	120404R-A3	0.4																																					●	●			
	120404L-A3	0.4																																					●	●			
	120408R-A3	0.8																																					●	●			
	120408L-A3	0.8																																					●	●			
Cast Iron	CCGW 060201	0.1																																						●			
	060202	0.2																																						●			
	CCGW 09T300	0.0																																						●			
	09T301	0.1																																						●			
	09T302	0.2																																						●			
	09T304	0.4																																						●			

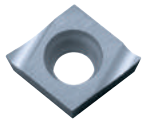
NEW



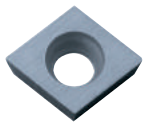
Sharp Edge



Finishing-Medium / Sharp Edge



Finishing-Medium / Sharp Edge



Without Chipbreaker

Ref. to the table below B49

Ref. to the table below B49

E23

1

2

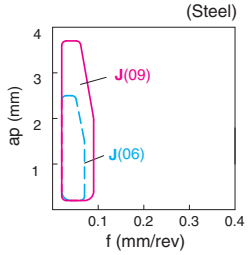
-

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

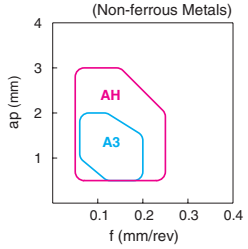
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item

Inserts are sold in 10 piece boxes

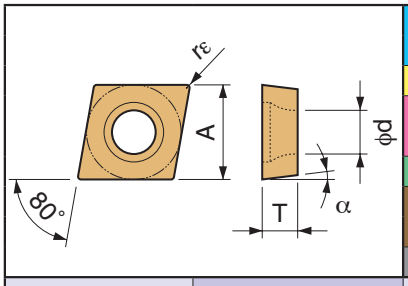
80° Rhombic / Positive with Hole

(mm)

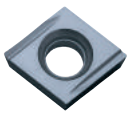
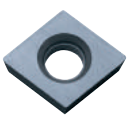
Description	A	T	φd	α
CPMT0802_	7.94	2.38	3.3	11°
CPMT0903_	9.525	3.18	4.4	11°

(mm)

Description	A	T	φd	α
CP_0802_	7.94	2.38	3.5	11°
CP_0903_	9.525	3.18	4.5	11°



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

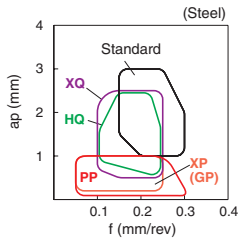
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	PVD Coated Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		CPMT 080202PP	0.2	●	●	●	○	○	●	●	●	●	○			●	●	●	●												●	●			●									
		CPMT 080204PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●												●	●			●									
		CPMT 090302PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●												●	●			●									
		CPMT 090304PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●												●	●			●									
		CPMT 090308PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●												●	●			●									
Finishing		CPMT 080204GP	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●								●				●	●		●						
		CPMT 090304GP	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●								●				●	●		●						
		CPMT 090308GP	0.8	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●								●				●	●		□						
Finishing-Medium		CPMH 080204HQ	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●	●	●						●				●	●		●	●					
		CPMH 080208HQ	0.8	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●	●	●						●				●	●		●	●					
		CPMH 090304HQ	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●	●	●						●				●	●		●	●					
		CPMH 090308HQ	0.8	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●			●	●	●	●						●				●	●		●	●					
Medium		CPMH 080204	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●	●	●	●	●			●		○	○	●	●				●	●		●	●					
		CPMH 080208	0.8	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●	□	●	●	●			●		○	○	●	●				●	●		●	●					
		CPMH 090304	0.4	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●	□	●	●		●	●	●	○	○	●	●				●	●		●	●					
		CPMH 090308	0.8	●	●	●	○	●	●	●	●	○	●	○	●	●	●	●	●	●	●		●	●	●	○	○	●	●				●	●		●	●					
Low Carbon Steel	 Finishing	CPMT 080204XP	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●			●	●								●				●	●		●						
		CPMT 090304XP	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●			●	●								●				●	●		●						
		CPMT 090308XP	0.8	●	●		○		●	●	●	○		●	○	●	●	●	●			●	●								●				●	●		●						
Low Carbon Steel	 Finishing-Medium	CPMT 090304XQ	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●			●	●																				
		CPMT 090308XQ	0.8	●	●		○		●	●	●	○		●	○	●	●	●	●			●	●																				
Finishing-Medium		CPMH 080204R-Y	0.4	●		●		●	●				●																					●		●		●				
		CPMH 080204L-Y	0.4	●		●	○	●	●				●	○																					●		●		●				
		CPMH 080208L-Y	0.8																																				●				
		CPMH 090304R-Y	0.4	●		●		●	●				●																					●		●		●				
		CPMH 090304L-Y	0.4	●		●	○	●	●				●	○																					●		●		●				
		CPMH 090308R-Y	0.8																																				●				
		CPMH 090308L-Y	0.8					●					●																					●					●				
Cast Iron	 Without Chipbreaker	CPMB 080202	0.2																																				●				
		CPMB 080204	0.4																																				●				
		CPMB 080208	0.8																																				●				
		CPMB 090302	0.2																																				●				
		CPMB 090304	0.4																																				●				
		CPMB 090308	0.8																																				●				

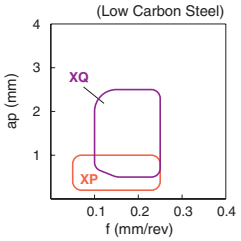
F41

Applicable Chipbreaker Range

ap indicates radius

1





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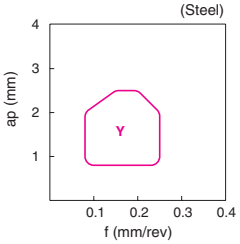


Inserts are sold in 10 piece boxes

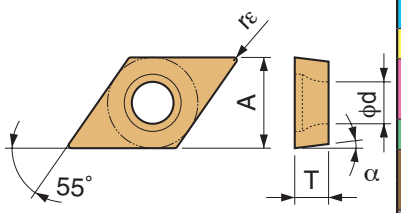
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

(mm)

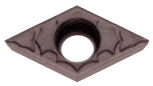
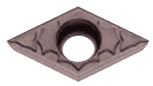
55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	 Sharp Edge	DCGT 070202CF	0.2																																	●								
		DCGT 11T302CF	0.2																																	●								
		DCGT 070201M-CF	<0.1																																		□	●							
		070202M-CF	<0.2																																		●	●							
		DCGT 11T301M-CF	<0.1																																		●	●							
		11T302M-CF	<0.2																																		●	●							
Minute ap	 Sharp Edge / Polished	DCGT 070201MP-CF	<0.1																																●	●			●		●				
		070202MP-CF	<0.2																																●	●			●		●				
		DCGT 11T301MP-CF	<0.1																																●	●			●		●				
		11T302MP-CF	<0.2																																●	●			●		●				
Finishing	 Sharp Edge	DCGT 070201MF-GF	<0.1																																			●							
		070202MF-GF	<0.2																																			●							
		DCGT 11T301MF-GF	<0.1																																			●							
		11T302MF-GF	<0.2																																			●							
		11T304MF-GF	<0.4																																			●							
Finishing	 Sharp Edge / Polished	DCGT 070201MFP-GF	<0.1																																●	●			●		●				
		070202MFP-GF	<0.2																																●	●			●		●				
		070204MFP-GF	<0.4																																●	●			●		●				
		DCGT 11T301MFP-GF	<0.1																																●	●			●		●				
		11T302MFP-GF	<0.2																																●	●			●		●				
		11T304MFP-GF	<0.4																																●	●			●		●				
Finishing	NEW  Sharp Edge / Polished	DCGT 070201MFP-SK	<0.1																																●	●					●				
		070202MFP-SK	<0.2																																●	●					●				
		070204MFP-SK	<0.4																																●	●					●				
		DCGT 11T301MFP-SK	<0.1																																●	●					●				
		11T302MFP-SK	<0.2																																●	●					●				
		11T304MFP-SK	<0.4																																●	●					●				
Finishing		DCGT 070201CK	0.1																																		●							
		070202CK	0.2																																		●							
		DCGT 11T301CK	0.1																																		●							
		11T302CK	0.2																																		●							
		DCGT 070201M-CK	<0.1																																			●	●						
		070202M-CK	<0.2																																			●	●						
		DCGT 11T301M-CK	<0.1																																			●	●						
		11T302M-CK	<0.2																																			●	●						

Ref. to the table above

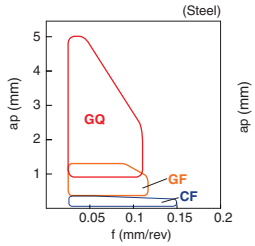
1

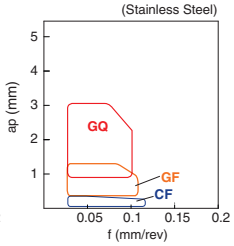
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

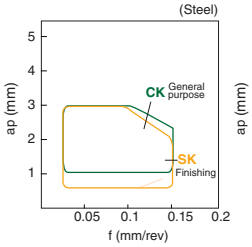
1

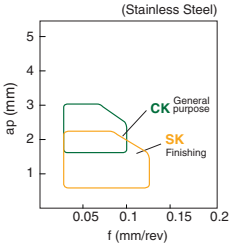
•Chip control Oriented





•Low cutting force





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

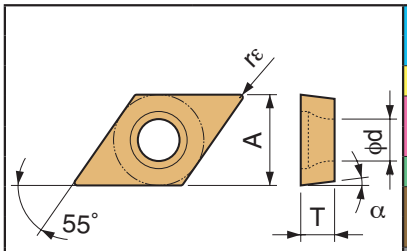
Inserts are sold in 10 piece boxes

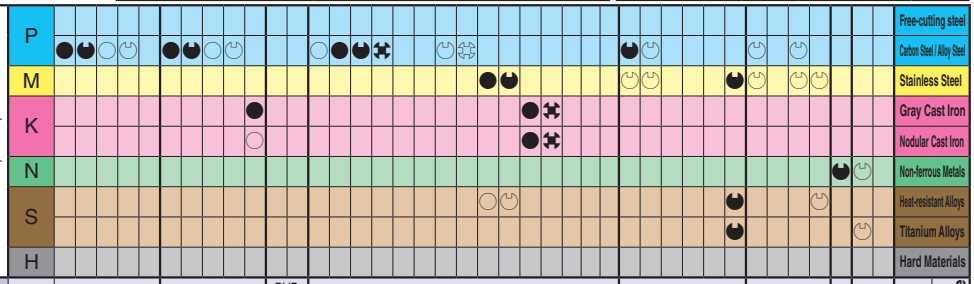
55° Rhombic / Positive with Hole

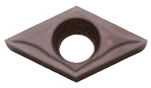
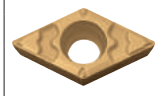
Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

(mm)

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°





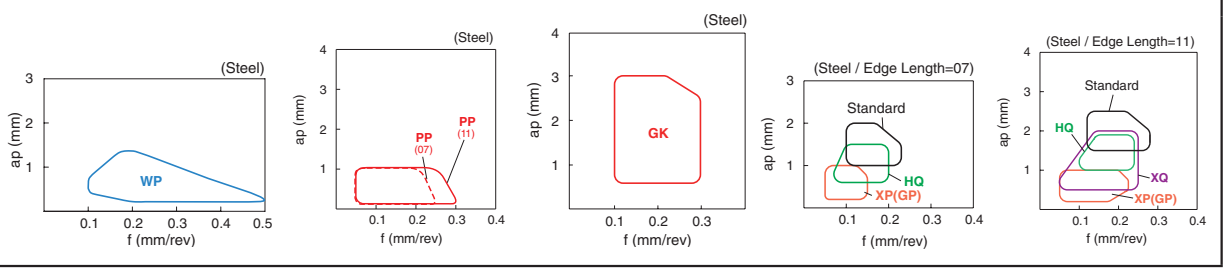
Insert		Description		Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	 Sharp Edge / Polished	DCGT	070201MP-CK	<0.1													●	●												●	●			●			●		●			Ref. to the table above	
			070202MP-CK	<0.2													●	●												●	●			●			●		●				
		DCGT	11T301MP-CK	<0.1													●	●												●	●			●			●		●	●			
			11T302MP-CK	<0.2													●	●												●	●			●			●		●	●			
Finishing-Medium	 Sharp Edge	DCGT	070201MF-GQ	<0.1																																●					B57 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	070204WP	0.4	●	●				●	●						●	●	●	●										●	●												
		DCMX	11T304WP	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	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●							●				●	●		●				1	
			070204GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●							●				●	●		●					
		DCMT	11T304GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●							●				●	●		●					
			11T308GP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●							●				●	●		●					
Finishing-Medium		DCMT	070202GK	0.2	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●	□	●	●				●				●	●		●	●				
			070204GK	0.4	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●	●	●	●		○	●	●				●	●		●	●				
			070208GK	0.8	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●		●	●			●	●				●	●		●	●				
		DCMT	11T302GK	0.2	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●	●	●					●				●	●		●	●				
			11T304GK	0.4	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●	●	●					●				●	●		●	●				
			11T308GK	0.8	●	●	●	○		●	●	●	○			○	●	●	●	●		●	●	●	●					●				●	●		●	●				

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

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

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

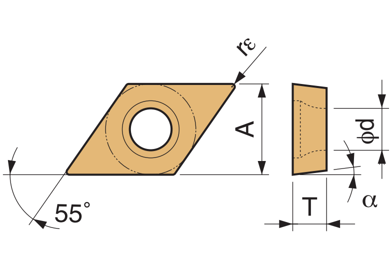
How to read pages of “Turning Inserts” ➡ B13

55° Rhombic / Positive with Hole

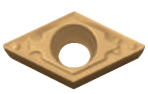
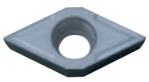
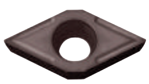
Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

(mm)

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



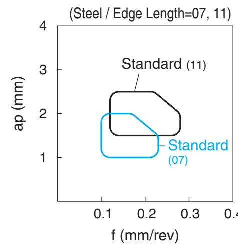
		TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05
P	Free-cutting steel																																			◕					
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 / MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
		rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Finishing-Medium 	DCMT 070202HQ	0.2	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●	□								●					●	●		●					Ref. to the table above	B58 1
	070204HQ	0.4	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●		●	●	●	●	●						●					●	●		●	●					
	070208HQ	0.8	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●		●	●	●	●	●						●					●	●		●	●					
	DCMT 11T302HQ	0.2	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●	●	●	●						●					●	●		●	●					
	11T304HQ	0.4	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●		●	●	●	●	●						●					●	●		●	●					
	11T308HQ	0.8	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●		●	●	●	●	●						●					●	●		●	●					
Medium 	DCGT 070201	0.1	●	●	●	○	●	●	●	●	○		●																							●								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  Sharp Edge	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																												●	●				●		●	●						
Low Carbon Steel  Finishing	DCMT 070204XP	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						2
	DCMT 11T302XP	0.2	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
	11T304XP	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
	11T308XP	0.8	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
Low Carbon Steel  Finishing-Medium	DCMT 11T304XQ	0.4	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●																							
	11T308XQ	0.8	●	●		○		●	●	●	○		●	○	●	●	●	●		●	●																							

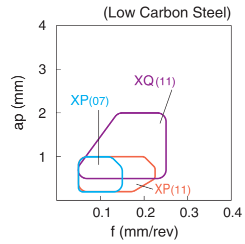
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

1



2



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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

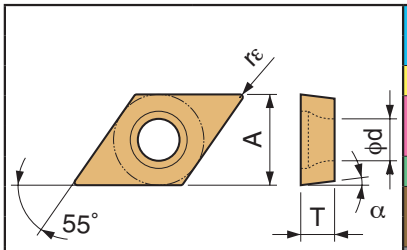
How to read pages of "Turning Inserts" B13

55° Rhombic / Positive with Hole

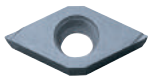
Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

(mm)

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Stainless Steel / Heat-Resistant Alloys																																												
	 Finishing-Medium	DCMT 070202MQ	0.2																				●	●							●	●	●					●			●			
			070204MQ	0.4																				●	●							●	●	●					●			●			
		DCMT 11T302MQ	0.2																				●	●																●				1	
			11T304MQ	0.4																				●	●							●	●	●							●			
			11T308MQ	0.8																												●	●	●							●			
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																												●							●					
	Sharp Edge / Precision		11T304ML-FSF	<0.4																												●							●					

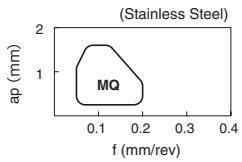
Ref. to the table above

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

Applicable Chipbreaker Range

ap indicates radius

1



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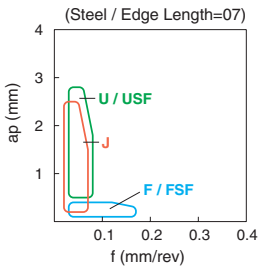
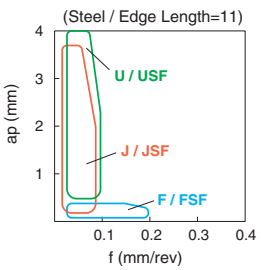




Inserts are sold in 10 piece boxes

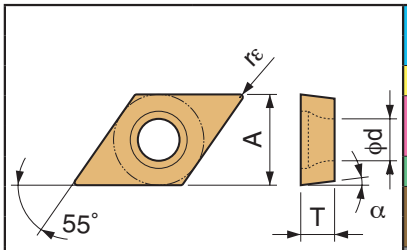
● : Std. Item □ : Deleted from the next catalogue

(mm)

55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	NEW	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	●					●							●													●					●					●				
	Sharp Edge		11T304ML-F	<0.4	●					●							●													●					●					●				
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																														●						●				
	Sharp Edge		11T304ML-F	<0.4																														●						●				

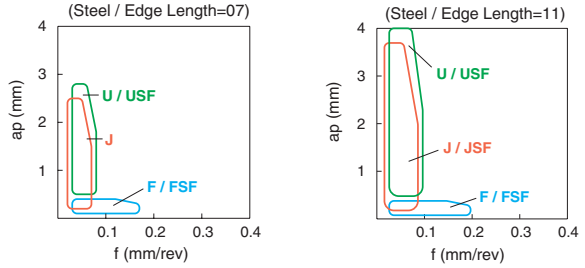
Ref. to the table above

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

Applicable Chipbreaker Range

ap indicates radius

1



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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

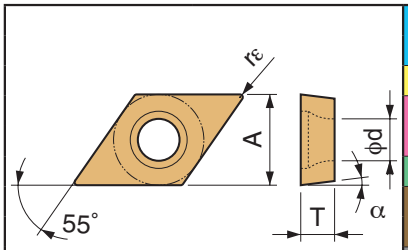
How to read pages of "Turning Inserts" B13

(mm)

55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide													MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Low Feed Super Fine Sharp Edge / Precision	DCET 0702003FR-USF	0.03																															●							
	DCET 0702003FL-USF	0.03																															●							
	DCET 070201FR-USF	0.1					□																										●							
	DCET 070201FL-USF	0.1					□																										●							
	DCET 070202FR-USF	0.2					●																										●							
	DCET 070202FL-USF	0.2					●																										●							
	DCET 11T3003FR-USF	0.03																															●							
	DCET 11T3003FL-USF	0.03																															●							
	DCET 11T301FR-USF	0.1					●																										●							
	DCET 11T301FL-USF	0.1					□																										●							
	DCET 11T302FR-USF	0.2					●																										●							
	DCET 11T302FL-USF	0.2					●																										●							
	DCET 0702005MFR-USF	<0.05																											●					●						
	DCET 0702005MFL-USF	<0.05																											●											
	DCET 070201MFR-USF	<0.1																											●					●						
	DCET 070201MFL-USF	<0.1																											●					●						
	DCET 070202MFR-USF	<0.2																											●					●						
	DCET 070202MFL-USF	<0.2																											●					●						
	DCET 11T3005MFR-USF	<0.05																											●					●						
	DCET 11T3005MFL-USF	<0.05																											●											
	DCET 11T301MFR-USF	<0.1																											●					●						
	DCET 11T301MFL-USF	<0.1																											●					●						
	DCET 11T302MFR-USF	<0.2																											●					●						
	DCET 11T302MFL-USF	<0.2																											●					●						
Low Feed NEW Sharp Edge	DCET 0702005MFR-U	<0.05						●																					●					●				●		
	DCET 070201MFR-U	<0.1	●					●																					●					●				●		
	DCET 070201MFL-U	<0.1	●					●																					●					●				●		
	DCET 070202MFR-U	<0.2	●	●				●	●																				●					●				●		
	DCET 070202MFL-U	<0.2	●	●				●	●																				●					●				●		
	DCET 11T3005MFR-U	<0.05																											●					●				●		
	DCET 11T301MFR-U	<0.1	●					●																					●					●				●		
	DCET 11T301MFL-U	<0.1	●					●																					●					●				●		
	DCET 11T302MFR-U	<0.2	●	●				●	●																				●					●				●		
	DCET 11T302MFL-U	<0.2	●	●				●	●																				●					●				●		
	DCET 11T304MFR-U	<0.4																											●					●				●		
Low Feed Sharp Edge	DCGT 0702003FR-U	0.03																															●					●		
	DCGT 0702003FL-U	0.03																															●					●		
	DCGT 070201FR-U	0.1			●	○	●							□																			●					●		
	DCGT 070201FL-U	0.1			●	□	●																										●					●		
	DCGT 070202FR-U	0.2			●	○	●				○		□	○																			●					●		
	DCGT 070202FL-U	0.2			●	○	●				○		□	○																			●					●		
	DCGT 11T3003FR-U	0.03					●																										●					●		
	DCGT 11T3003FL-U	0.03					●																										●					●		
	DCGT 11T301FR-U	0.1			●		●																										●					●		
	DCGT 11T301FL-U	0.1			●		●																										●					●		
	DCGT 11T302FR-U	0.2			●	○	●				○		●	○																			●					●		
	DCGT 11T302FL-U	0.2			●	○	●				○			○																			●					●		

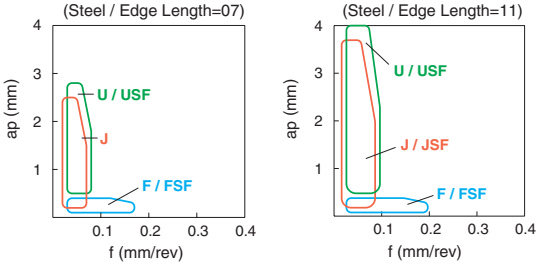
Ref. to the table above

1

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

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

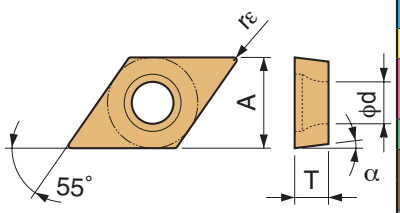
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

(mm)

55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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

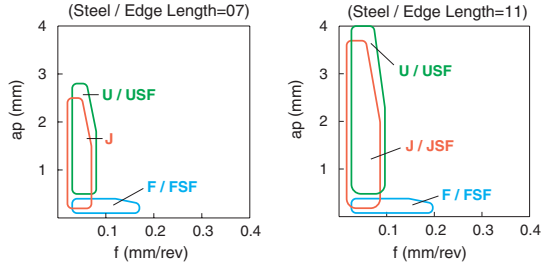
Insert Handed Insert shows Left-hand	Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide																MEGACOAT MEGACOAT NANO					PVD Coated Carbide			DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Low Feed	DCGT 0702003MFR-U	<0.03																																	□	●					Ref. to the table above	1
	DCGT 0702003MFL-U	<0.03																																	□	●						
	DCGT 0702005MFR-U	<0.05																												●					□	●						
	DCGT 0702005MFL-U	<0.05																												●					□	□						
	DCGT 070201MFR-U	<0.1																												●					●	●						
	DCGT 070201MFL-U	<0.1																												●					●	●						
	DCGT 070202MFR-U	<0.2																												●					●	●						
	DCGT 070202MFL-U	<0.2																												●					●	●						
	DCGT 070204MFR-U	<0.4																												●					□	●						
	DCGT 070204MFL-U	<0.4																												●					□	●						
	DCGT 11T3005MFR-U	<0.05																												●					●	●						
	DCGT 11T3005MFL-U	<0.05																												●					●	●						
	DCGT 11T301MFR-U	<0.1																												●					●	●						
	DCGT 11T301MFL-U	<0.1																												●					●	□						
	DCGT 11T302MFR-U	<0.2																												●					●	●						
	DCGT 11T302MFL-U	<0.2																												●					●	●						
	DCGT 11T304MFR-U	<0.4																												●					●	●						
Sharp Edge	DCGT 11T304MFL-U	<0.4																												●					●	●						
Low Feed	DCGT 070201ER-U	0.1	●		●			●																											●							1
	DCGT 070201EL-U	0.1	●		●			●																											●							
	DCGT 070202ER-U	0.2	●		●	○	●	●			○			□																					●							
	DCGT 070202EL-U	0.2	●		●	□	●	●			○																								●							
	DCGT 070204ER-U	0.4	●	●	●	○	●	●	●					○																					●							
	DCGT 070204EL-U	0.4	●	●	●	○	●	●	●					○																					●							
	DCGT 11T301ER-U	0.1	●		●		●	●																											●							
	DCGT 11T301EL-U	0.1	●		●			●																											●							
	DCGT 11T302ER-U	0.2	●	●	●	○	●	●	●	●	○		●	○																					●							
	DCGT 11T302EL-U	0.2	●	●	●	○	●	●	●	●	○		●	○																					●							
	DCGT 11T304ER-U	0.4	●	●	●	○	●	●	●	●	○		●	○																					●							
	DCGT 11T304EL-U	0.4	●	●	●	○	●	●	●	●	○		●	○																					●							
	DCGT 070201MER-U	<0.1																																			●					
	DCGT 070202MER-U	<0.2																																			●					
	DCGT 070202MEL-U	<0.2																																			●					
	DCGT 070204MER-U	<0.4																																			●					
	DCGT 070204MEL-U	<0.4																																			□					
With Honing	DCGT 11T301MER-U	<0.1																																			●					
	DCGT 11T301MEL-U	<0.1																																			□					
	DCGT 11T302MER-U	<0.2																																			●					
	DCGT 11T302MEL-U	<0.2																																			●					
	DCGT 11T304MER-U	<0.4																																			●					
	DCGT 11T304MEL-U	<0.4																																			●					

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

Applicable Chipbreaker Range

ap indicates radius

1



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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

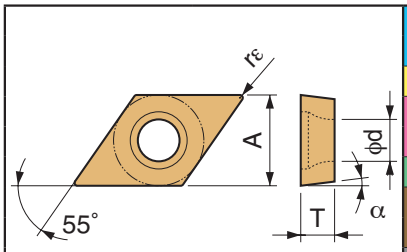
How to read pages of "Turning Inserts" B13

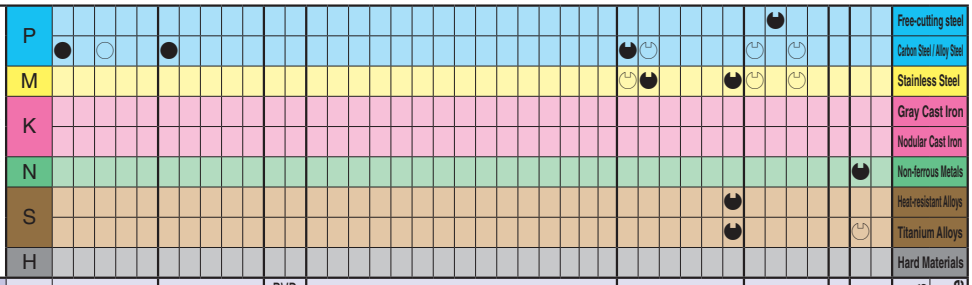
(mm)

55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	φd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°





Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed — Super Fine — Sharp Edge / Precision	DCET 11T3003FR-JSF	0.03																																	●								
	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 — NEW — 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

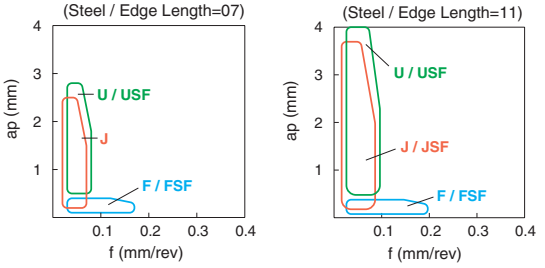
1

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

Applicable Chipbreaker Range

ap indicates radius

1



Inserts are sold in 10 piece boxes

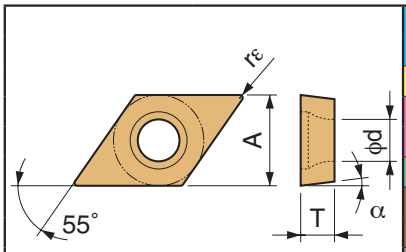
● : Std. Item □ : Deleted from the next catalogue

(mm)

55° Rhombic / Positive with Hole

Insert Description	Ref. to Page for Applicable Toolholders
DC..07 type	E24~E27,E35,F43~F45
DC..11 type	E20,E24~E27,E35,F43~F45,F65

Description	A	T	ϕd	α
DC_0702_	6.35	2.38	2.8	7°
DC_11T3_	9.525	3.97	4.4	7°



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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PVD Coated Cermet PV7005	PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Low Feed	DCGT 11T3003ER-J	0.03																																										
	11T301ER-J	0.1	●		●		●	●																												●					●			
	11T301EL-J	0.1	●		●			●																												□					●			
	11T302ER-J	0.2	●		●		●	●																												●					●			
	11T302EL-J	0.2	●		●		●	●																												●					●			
	11T304ER-J	0.4	●		●	○	●	●																												●					●			
	11T304EL-J	0.4	●		●	○	●	●																												●					●			1
	DCGT 11T3005MER-J	<0.05																																				●							
	11T301MER-J	<0.1																																				●							
	11T302MER-J	<0.2																																				●							
	11T304MER-J	<0.4																																				●							
	11T304MEL-J	<0.4																																				●							
Non-ferrous Metals	DCGT 11T304AH	0.4																																							●	●			
	11T308AH	0.8																																							●	●			2
Non-ferrous Metals	DCGT 11T302R-A3	0.2																																							●	●			
	11T302L-A3	0.2																																							●	●			
	11T304R-A3	0.4																																							●	●			
	11T304L-A3	0.4																																							●	●			
	11T308R-A3	0.8																																							●				
	11T308L-A3	0.8																																							●				
Cast Iron	DCGW 070201	0.1																																								●			
	070202	0.2																																								●			-
	DCGW 11T301	0.1																																								●			
	11T302	0.2																																								●			
	11T304	0.4																																								●			

With Honing

Finishing-Medium / Sharp Edge

Finishing-Medium / Sharp Edge

Without Chipbreaker

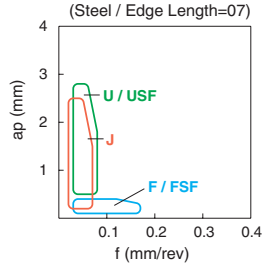
Ref. to the table above

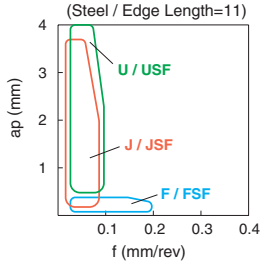
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range

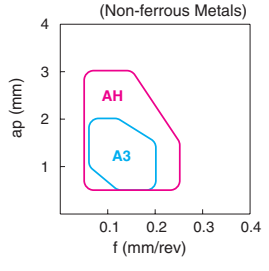
ap indicates radius

1





2



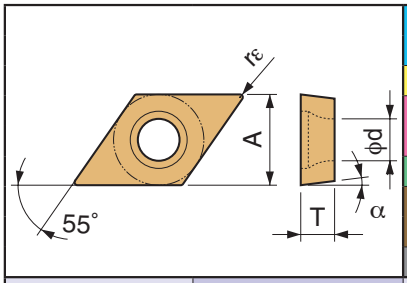
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

55° Rhombic / Positive with Hole

(mm)

Description	A	T	φd	α
DP_0702_	6.35	2.38	2.8	11°
DP_11T3_	9.525	3.97	4.4	11°



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

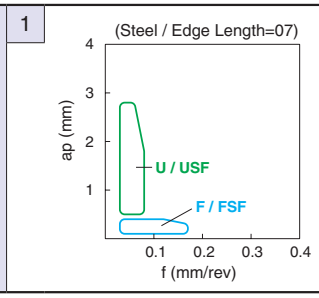
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine	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 0702005MR-FSF	<0.05																																				□							
	070201MR-FSF	<0.1																																				□							
	070202MR-FSF	<0.2																																				●							
	070202ML-FSF	<0.2																																				●							
	DPET 11T3005MR-FSF	<0.05																																				□							
	11T301MR-FSF	<0.1																																				●							
	11T302MR-FSF	<0.2																																				●							
Low Feed — Super Fine	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																																		●								
	11T3003FL-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																																					●						

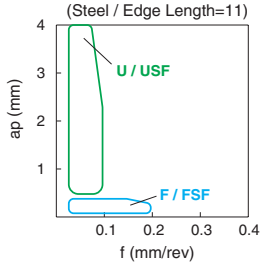
Sharp Edge / Precision

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

Applicable Chipbreaker Range ap indicates radius

1





Inserts are sold in 10 piece boxes

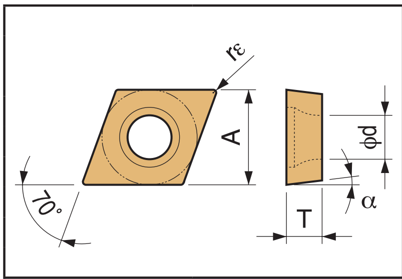
● : Std. Item □ : Deleted from the next catalogue

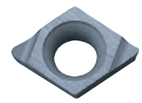
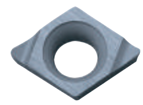
How to read pages of “Turning Inserts” ➡ B13

70° Rhombic / Positive with Hole

(mm)

Description	A	T	ϕd	α
JC_0301_	3.5	1.4	1.9	7°

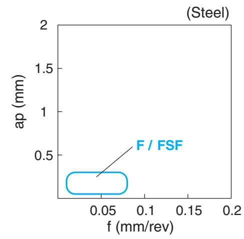


Insert	Description	Dimension (mm)	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide															MEGACOAT MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Handed Insert shows Left-hand		rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	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																																											
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 NEW  Sharp Edge	JCET 030102MR-F	<0.2																												●					●									
	030102ML-F	<0.2																												●					●									
	030104MR-F	<0.4																												●					●								F46	1
	030104ML-F	<0.4																												●					●									
Finishing  Sharp Edge	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					●																													●					●			
	JCGT 030101ML-F	<0.1																																				□						
	030102MR-F	<0.2																																				●						
	030102ML-F	<0.2																																				●						
	030104ML-F	<0.4																																				●						

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

Applicable Chipbreaker Range
ap indicates radius

1



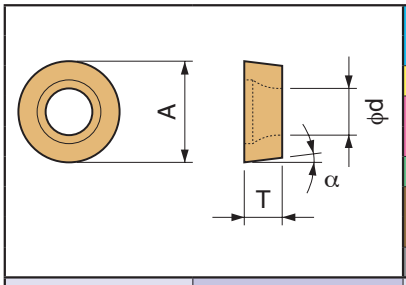
● : Std. Item □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

Round / Positive with Hole

(mm)

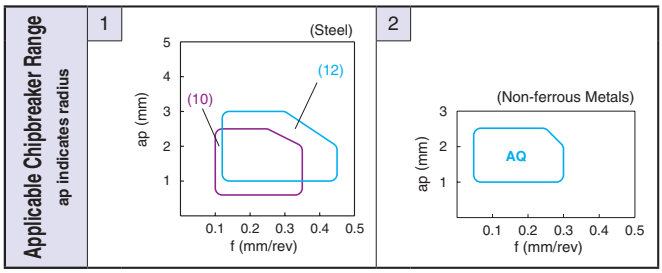
Description	A	T	ϕd	α
RC_1003_	10.0	3.18	3.6	7°
RC_1204_	12.0	4.76	4.2	7°



Insert		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Medium	*	RCMX 1003M0	-	●		○	●		●					○	●	●	●	●	□	●	●		●																		D19	1
		RCMX 1204M0	-	●		○	●		●					○	●	●	●	●	□	●	●			●	●	●		○	●														
Non-ferrous Metals	Finishing-Medium	RCGX 1003M0-AQ	-																																			●				2

	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									

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



Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

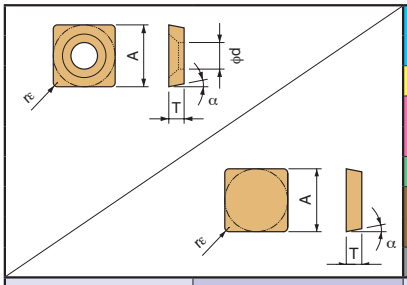
90° Square / Positive with Hole
90° Square / Positive without Hole

(mm)

Description	A	T	φd	α
SC_09T3_	9.525	3.97	4.4	7°
SP_0903_	9.525	3.18	4.5	11°

(mm)

Description	A	T	φd	α
SP_0903_	9.525	3.18	-	11°
SP_1203_	12.7	3.18	-	11°
SP_1204_	12.7	4.76	-	11°



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

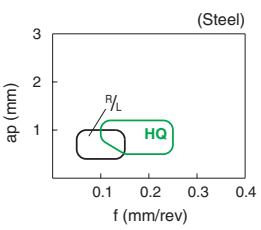
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing-Medium	SCMT 09T304HQ	0.4	●		●		●	●		●					●	●	●	●		●	●	●																					-	1
	SCMT 09T308HQ	0.8	●		●		●	●		●					●	●	●	●		●	●	●																						
Finishing	SPGH 090304L	0.4					●																																				F60	
	SPGH 090308L	0.8					●																																				
Finishing	SPGR 090304R	0.4	●		●		●	●				●																																
	SPGR 090304L	0.4	●		●		●	●				●																																
	SPGR 090308R	0.8	●		●		●	●																																			
	SPGR 090308L	0.8	●		●		●	●																																			
	SPGR 120304R	0.4	●		●		●	●																																			
	SPGR 120304L	0.4	●		●		●	●																																			
	SPGR 120308R	0.8	●		●		●	●				●																																
	SPGR 120308L	0.8	●		●		●	●				●																																
Medium	SPMR 090304G	0.4					●				○	●	●																																
	SPMR 090308G	0.8					●				○	●	●																																
	SPMR 120304G	0.4					●				○	●	●																																
	SPMR 120308G	0.8					●				○	●	●																																
Medium	SPMR 090304	0.4													●	●	●	●		●	●			●																●			E42	
	SPMR 090308	0.8													●	●	●	●		●	●			●																●			F60	
	SPMR 120304	0.4													●	●	●	●		●	●			●																●				
	SPMR 120308	0.8													●	●	●	●		●	●			●																●				
Cast Iron	SPGN 090304	0.4										●																													●				-
	SPGN 090308	0.8										●																													●				
	SPGN 120304	0.4										●																													●				
	SPGN 120308	0.8										●																													●				
	SPMN 090308	0.8										●																																	
	SPMN 120304	0.4																	●							●			●														
	SPMN 120308	0.8	●		●		●	●				●							●						●	●		○	●														
	SPMN 120312	1.2	●		●		●	●				●																																
	SPMN 120408	0.8																								●			●														
	SPMN 120412	1.2																								●			●														

Without Chipbreaker

Applicable Chipbreaker Range

ap indicates radius

1



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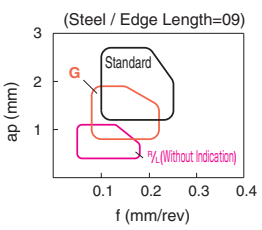
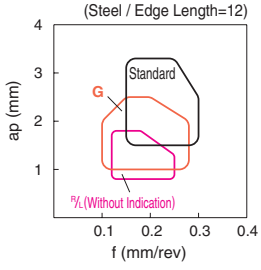




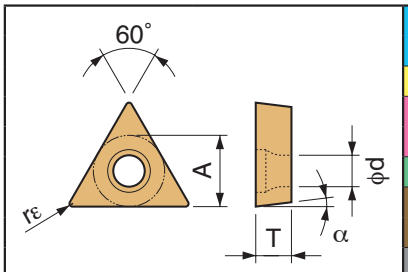
● : Std. Item ○ : Check Availability

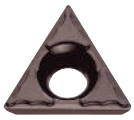
Inserts are sold in 10 piece boxes

60° Triangle / Positive with Hole

(mm)

Description	A	T	φd	α
TB_0601_	3.97	1.59	2.3	5°



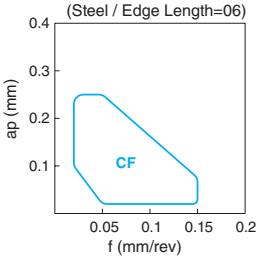
Insert (Handed Insert shows Left-hand)		Description		Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	 Sharp Edge	TBGT	060102CF	0.2																															●							
		TBGT	060101M-CF	<0.1																																	●						
			060102M-CF	<0.2																																	●	●					1
Minute ap	 Sharp Edge / Polished	TBGT	060101MP-CF	<0.1																															●			□				
			060102MP-CF	<0.2																															●	●		●				
Finishing		TBMT	060102DP	0.2	●	●	●	○	●	●	●	●	○		○	●	●	●	●		●	●																				
			060104DP	0.4	●	●	●	○	●	●	●	●	○		○	●	●	●	●		●	●																				
Finishing		TBET	0601005MR	<0.05																													●									
			0601005ML	<0.05																													●									
			060101MR	<0.1																													●									
			060101ML	<0.1																													●									
			060102MR	<0.2																													●								F49	
			060102ML	<0.2																													●								F51	
			060104MR	<0.4																													●									
			060104ML	<0.4																													●									2
		TBGT	0601003L	0.03																															●							
			060101R	0.1					□																										●				●			
			060101L	0.1					●																										●				●			
			060102R	0.2	●		●		●	●																									●				●			
			060102L	0.2	●	●	●	○	●	●	●	●	○		●	○																			●				●			
			060104R	0.4	●		●		●	●																									●				●			
			060104L	0.4	●	●	●	○	●	●	●	●	○		●	○																			●				●			
		TBGT	0601005MR	<0.05																																	□		●				
			0601005ML	<0.05																																	□		●				
			060101MR	<0.1																																	□		●				
			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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range

ap indicates radius

1



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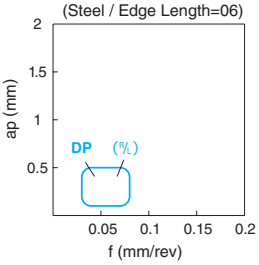


Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

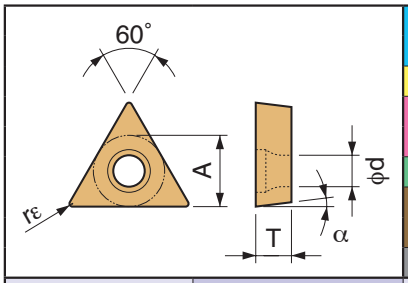
(mm)

Description	A	T	φd	α
TC_0802_	4.76	2.38	2.3	7°
TC_0902_	5.56	2.38	2.5	7°

(mm)

Description	A	T	φd	α
TC_1102_	6.35	2.38	2.8	7°
TC_1103_	6.35	3.18	2.8	7°
TC_16T3_	9.525	3.97	4.4	7°

60° Triangle / Positive with Hole

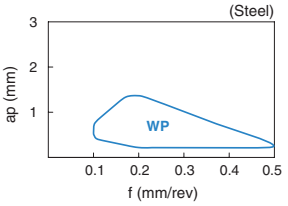


Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
With Wiper Edge	TCMX 090204WP	0.4	●	●				●	●						●	●	●	●												●	●															1
NEW Finishing	TCMX 110204WP	0.4	●	●				●	●						●	●	●	●												●	●															
Finishing-Medium	TCMT 090202HQ	0.2	●	●	●		●	●	●	●	○				●	●	●	●																											F47	
	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																																			●						E29	2
	0802003FL-USF	0.03																																			●							
	080201FR-USF	0.1																																			●							
	080202FR-USF	0.2																																			●							
	TCET 1103003FR-USF	0.03																																			●							
	1103003FL-USF	0.03																																			●							
	110301FR-USF	0.1					●																														●							
	110301FL-USF	0.1					●																														●							
	110302FR-USF	0.2					●																														●							
	110302FL-USF	0.2					●																														●							
Sharp Edge / Precision	TCET 1103005MFR-USF	<0.05																																					●						
	110301MFR-USF	<0.1																																					●						
	110302MFR-USF	<0.2																																					●						

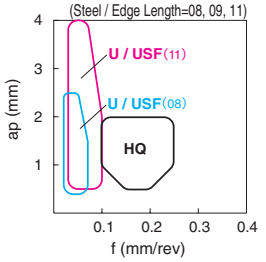
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

1



2



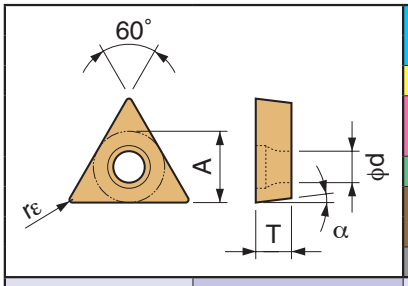
● : Std. Item ○ : Check Availability

Inserts are sold in 10 piece boxes

60° Triangle / Positive with Hole

(mm)

Description	A	T	φd	α
TC_0802_	4.76	2.38	2.3	7°
TC_1103_	6.35	3.18	2.8	7°



	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 (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet					PVD Coated Cermet		CVD Coated Carbide																	MEGACOAT MEGACOAT NANO					PVD Coated Carbide						DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
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 0802005MFR-U	<0.05																												●													
	0802005MFL-U	<0.05																												●													
	080201MFR-U	<0.1																												●													
	080201MFL-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																												●								□	●				
	110302MFL-U	<0.2																												●									●				
	110304MFR-U	<0.4																												●								□	●				
	110304MFL-U	<0.4																												●									●				
Low Feed	TCGT 080202ER-U	0.2					●																												●								
	080202EL-U	0.2					●																												●								
	TCGT 110301ER-U	0.1				○	●																												□								
	110301EL-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 110301MER-U	<0.1																																			□							
	110301MEL-U	<0.1																																			□							
	110302MER-U	<0.2																																			●							
	110302MEL-U	<0.2																																			●							
	110304MER-U	<0.4																																			●							
	110304MEL-U	<0.4																																			●							

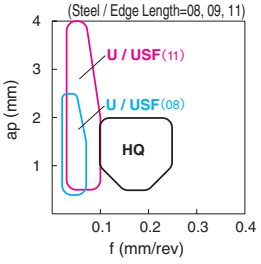
Sharp Edge / With Honing

E29 1

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

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

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

How to read pages of "Turning Inserts" B13

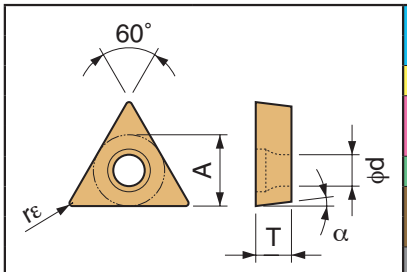
60° Triangle / Positive with Hole
60° Triangle / Positive without Hole

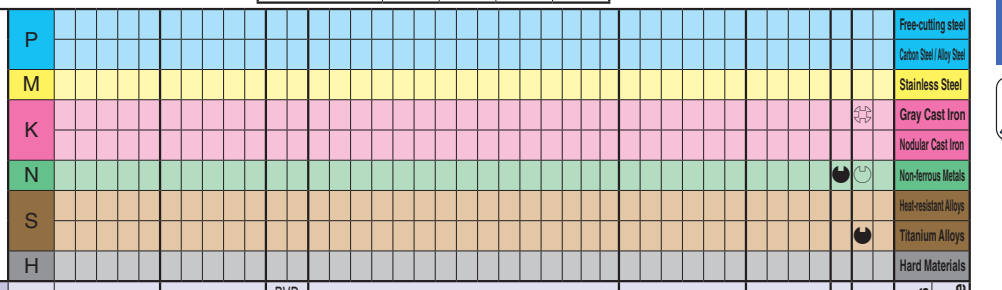
(mm)

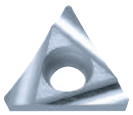
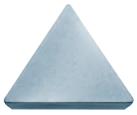
Description	A	T	φd	α
TCG_0601_	3.97	1.59	-	7°
TC_0802_	4.76	2.38	2.3	7°

(mm)

Description	A	T	φd	α
TC_1103_	6.35	3.18	2.8	7°



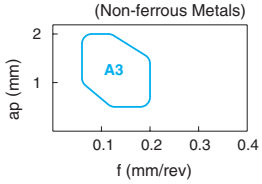


Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	TCGT 110302R-A3	0.2																																			●	●		E29	1
		TCGT 110302L-A3	0.2																																			●	●			
		TCGT 110304R-A3	0.4																																			●	●			
		TCGT 110304L-A3	0.4																																			●	●			
		TCGT 110308R-A3	0.8																																			●				
		TCGT 110308L-A3	0.8																																			●				
Cast Iron	 Without Chipbreaker	TCGW 080201	0.1																																				●			-
		TCGW 080202	0.2																																				●			
		TCGW 110301	0.1																																				●			
		TCGW 110302	0.2																																				●			
		TCGW 110304	0.4																																				●			
Finishing	 Sharp Edge	TCGR 060102L-F	0.2					●																																	-	2
		TCGR 060104L-F	0.4					●																																		
Cast Iron	 Without Chipbreaker	TCGN 060102	0.2					●																																	-	-
		TCGN 060104	0.4					●																																		

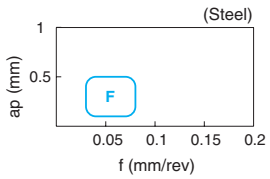
Applicable Chipbreaker Range

ap indicates radius

1



2



● : Std. Item

Inserts are sold in 10 piece boxes

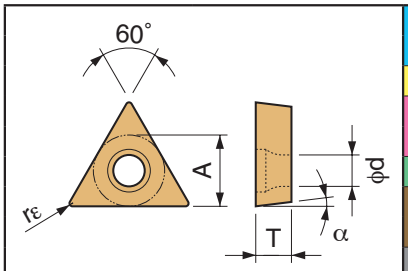
60° Triangle / Positive with Hole

(mm)

Description	A	T	ϕd	α
TP_0802_	4.76	2.38	2.3	11°
TPMT0902_	5.56	2.38	2.8	11°

(mm)

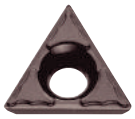
Description	A	T	ϕd	α
TP_0902_	5.56	2.38	3.0	11°
TP_1103_	6.35	3.18	3.3	11°
TPMT1603_	9.525	3.18	4.4	11°



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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	TPGT 080202CF	0.2																																		●								
	TPGT 090202CF	0.2																																		●								
	TPGT 080201M-CF	<0.1																																				●							
	080202M-CF	<0.2																																			●	●							
	TPGT 090201M-CF	<0.1																																				●							
	090202M-CF	<0.2																																			●	●							
Minute ap	TPGT 080201MP-CF	<0.1																												●	●				●			●							
	080202MP-CF	<0.2																												●	●				●			●							
	TPGT 090201MP-CF	<0.1																												●	●				●			●							
	090202MP-CF	<0.2																												●	●				●			●							
With Wiper Edge	TPMX 090204WP	0.4	●	●				●	●						●	●	●	●												●	●														
	TPMX 110304WP	0.4	●	●				●	●						●	●	●	●												●	●														
Finishing	TPMT 090202PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●												●	●				●										
	090204PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●												●	●				●										
	TPMT 110302PP	0.2	●	●	●	○		●	●	●	○				●	●	●	●												●	●				●										
	110304PP	0.4	●	●	●	○		●	●	●	○				●	●	●	●												●	●				●										
	110308PP	0.8	●	●	●	○		●	●	●	○				●	●	●	●												●	●				●										
Finishing	TPMT 090202GP	0.2	●	●	●	○	●	●	●	●	○		□	○	●	●	●	●		●	●									●					●	●		●						
	090204GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
	TPMT 110304GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
	110308GP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						
	TPMT 160304GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●		●	●									●					●	●		●						

Sharp Edge



Sharp Edge / Polished

NEW

Finishing

Ref. to the table below

1

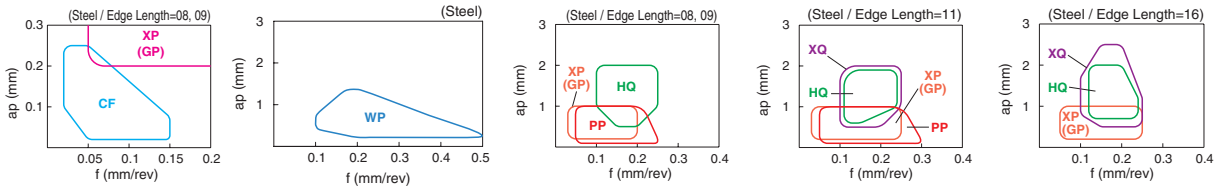
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Insert Description	Ref. to Page for Applicable Toolholders
TP..0802 type	**E29,F49,F51**
TP..0902 type	**F49,F51**

Insert Description	Ref. to Page for Applicable Toolholders
TP..1103 type	**E29,F49,F50**
TP..1603 type	**F49,F50**

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

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

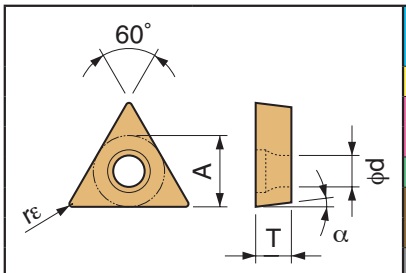
60° Triangle / Positive with Hole

(mm)

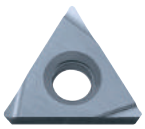
Description	A	T	φd	α
TP_0802_	4.76	2.38	2.3	11°
TPMT0902_	5.56	2.38	2.8	11°

(mm)

Description	A	T	φd	α
TP_0902_	5.56	2.38	3.0	11°
TP_1103_	6.35	3.18	3.3	11°
TPMT1603_	9.525	3.18	4.4	11°



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) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
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	●	●	●	○		●	●	●	○	●	●	○	●	●	●	●		●	●									●				●	●		●						B74
		TPMT	110304XP	0.4	●	●	●	○		●	●	●	○	●	●	○	●	●	●	●		●	●									●				●	●		●						1
			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	●	●	●	○		●	●	●	○	●	●	○	●	●	●	●		●	●																						
Finishing		TPGH	080201R	0.1					□																						●				●	●								
			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																											●				●	●								B76
			110202L	0.2	●		●		●	●																					●				●	●								1
			110204R	0.4					●				●																		●				●	●								
			110204L	0.4	●		●		●	●			●	●																	●				●	●								
		TPGH	110302R	0.2		●		○	●		●		○	●		○															●				●	●								
			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	●		●		●	●				●																	●				●	●								

Ref. to the table below B74

F50

Ref. to the table below B74

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

Inserts are sold in 10 piece boxes

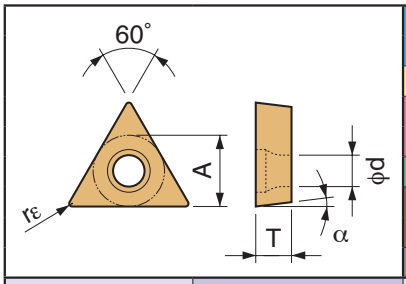
60° Triangle / Positive with Hole

(mm)

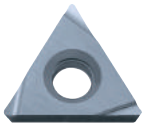
Description	A	T	φd	α
TP_0802_	4.76	2.38	2.3	11°
TP_0902_	5.56	2.38	3.0	11°
TP_1102_	6.35	2.38	3.5	11°

(mm)

Description	A	T	φd	α
TP_1103_	6.35	3.18	3.3	11°
TP_1603_	9.525	3.18	4.5	11°
TP_1604_	9.525	4.76	4.4	11°



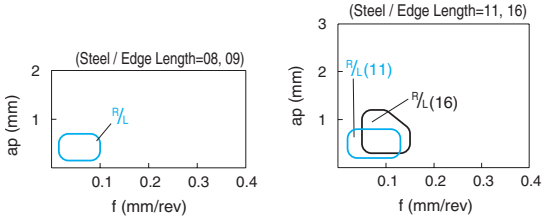
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description		Dimension (mm) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
				TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Finishing		TPGH	080201ML	<0.1																															●					Ref. to the table below B74	
			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																															●	●					
			110204MR	<0.4																																●				F50	1
			110204ML	<0.4																															●	●					
		TPGH	110302MR	<0.2																															●	●					
			110302ML	<0.2																															●	●					
			110304MR	<0.4																															●	●					
			110304ML	<0.4																															●	●					
			110308ML	<0.8																															●	●					
		TPGH	160302ML	<0.2																																	●					
			160304MR	<0.4																																	●	●				
			160304ML	<0.4																																	●	●				
			160308ML	<0.8																																	●					

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

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

● : Std. Item

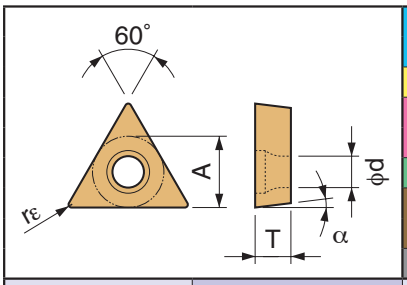
60° Triangle / Positive with Hole

(mm)

Description	A	T	φd	α
TP_0802_	4.76	2.38	2.3	11°
TP_0902_	5.56	2.38	3.0	11°
TP_1102_	6.35	2.38	3.5	11°

(mm)

Description	A	T	φd	α
TP_1103_	6.35	3.18	3.3	11°
TP_1603_	9.525	3.18	4.5	11°
TP_1604_	9.525	4.76	4.4	11°



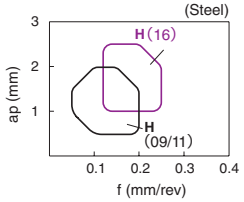
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert Handed Insert shows Left-hand	Description	Dimension (mm) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide														MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Medium	TPGH 090201L-H	0.1				○				○																			●					●							Ref. to the table below B74	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 B74	
	110304MR-H	<0.4																																			□						
	110304ML-H	<0.4																																			●						
	TPGH 160304ML-H	<0.4																																			●						
	160308MR-H	<0.8																																			□						
	160308ML-H	<0.8																																			□						

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

Applicable Chipbreaker Range
ap indicates radius

1



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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

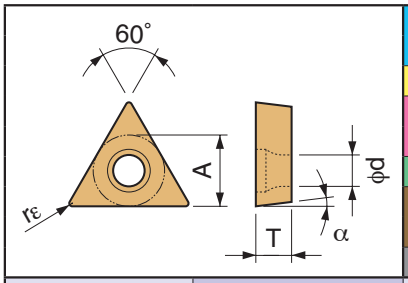
60° Triangle / Positive with Hole

(mm)

Description	A	T	φd	α
TP_0802_	4.76	2.38	2.3	11°
TP_0902_	5.56	2.38	3.0	11°
TP_1102_	6.35	2.38	3.5	11°

(mm)

Description	A	T	φd	α
TP_1103_	6.35	3.18	3.3	11°
TP_1603_	9.525	3.18	4.5	11°
TP_1604_	9.525	4.76	4.4	11°



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) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to 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																																				●							
	TPET 1103005ML-FSF	<0.05																																				●							
	110301MR-FSF	<0.1																																				●							
	110301ML-FSF	<0.1																																				●							
	110302MR-FSF	<0.2																																				●							
	110302ML-FSF	<0.2																																				●							
Low Feed — Super Fine	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 1103005MFL-USF	<0.05																																				□							
	110301MFL-USF	<0.1																																				●							
	110302MFR-USF	<0.2																																				●							
	110302MFL-USF	<0.2																																				●							

Ref. to the table below B74

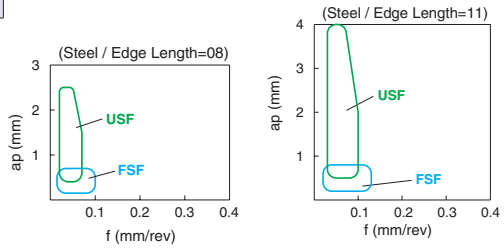
1

Sharp Edge / Precision

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

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

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

How to read pages of “Turning Inserts” ➡ B13

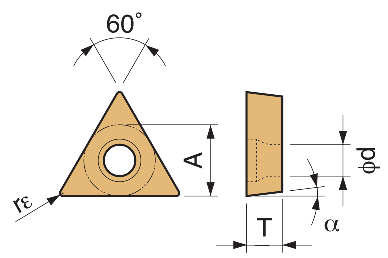
60° Triangle / Positive with Hole

(mm)

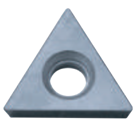
Description	A	T	ϕd	α
TP_0802_	4.76	2.38	2.3	11°
TP_0902_	5.56	2.38	3.0	11°
TP_1102_	6.35	2.38	3.5	11°

(mm)

Description	A	T	ϕd	α
TP_1103_	6.35	3.18	3.3	11°
TP_1603_	9.525	3.18	4.5	11°
TP_1604_	9.525	4.76	4.4	11°



		TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	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 MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
		rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Cast Iron  Without Chipbreaker	TPGB 080202	0.2				○	●					●																													●		Ref. to the table below B74	-
	080204	0.4		●		○	●		●		○	●		○																											●		Ref. to the table below B74	-
	080208	0.8					●																																				Ref. to the table below B74	-
	TPGB 090202	0.2					●																																		●		Ref. to the table below B74	-
	090204	0.4		●		○	●		●		○	●		○																											●		Ref. to the table below B74	-
	TPGB 1102005	0.05					●																																		●		F50	-
	110201	0.1					●																																		●		F50	-
	110202	0.2					●																																		●		F50	-
	110204	0.4	●		●		●	●																																	●		F50	-
	TPGB 1103005	0.05					●																																		●		Ref. to the table below B74	-
	110301	0.1					●																																		●		Ref. to the table below B74	-
	110302	0.2	●	●	●	○	●	●	●		○			○																											●		Ref. to the table below B74	-
	110304	0.4	●	●	●	○	●	●	●		○	●		○																											●		Ref. to the table below B74	-
	110308	0.8	●	●	●	○	●	●	●		○	●		○																											●		Ref. to the table below B74	-
	TPGB 160304	0.4	●		●		●	●				●																													●		Ref. to the table below B74	-
	160308	0.8	●		●		●	●																																	●		Ref. to the table below B74	-

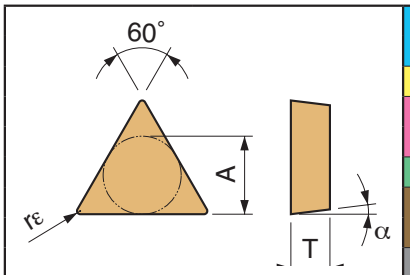
● : Std. Item ○ : Check Availability

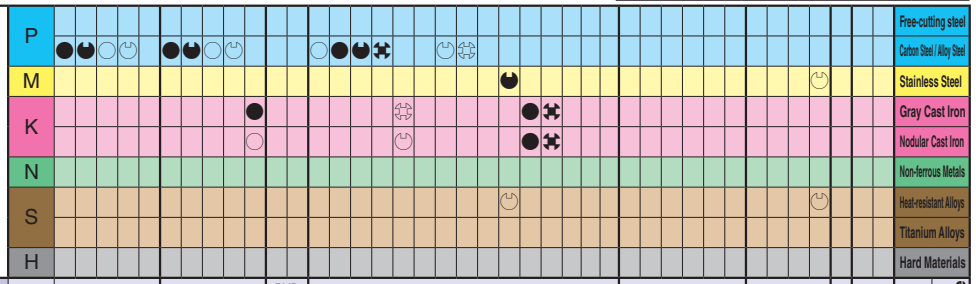
Inserts are sold in 10 piece boxes

60° Triangle / Positive without Hole

(mm)

Description	A	T	φd	α
TP_0902_	5.56	2.38	-	11°
TP_1103_	6.35	3.18	-	11°
TP_1603_	9.525	3.18	-	11°



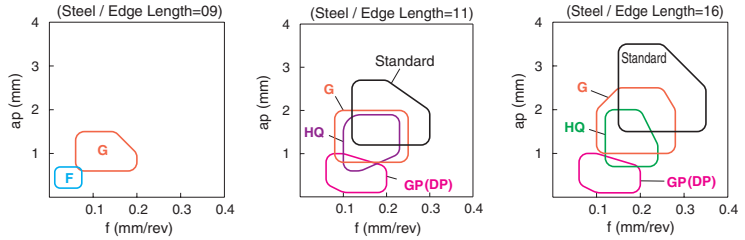


Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	PVD Coated Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		TPMR 110304DP 110308DP	0.4 0.8					● ●																																		
		TPMR 160304DP 160308DP	0.4 0.8					● ●																																		
Finishing		TPMR 110304GP	0.4		●		○	●		●				●	○																									E43	
		TPMR 160304GP	0.4		●		○	●		●				●	○	●	●	●		●	●																			F61	
Finishing-Medium		TPMR 110304HQ 110308HQ	0.4 0.8		● ●			● ●		● ●		○ ○		● ●		● ●	● ●	● ●	● ●		● ●	● ●	□ □		● ●												● ●					
		TPMR 160304HQ 160308HQ	0.4 0.8	● ●	● ●	● ●		● ●	● ●	● ●	● ●	○ ○		● ●		● ●	● ●	● ●	● ●		● ●	● ●	● ●		● ●												● ●					
Medium		TPMR 090202G 090204G	0.2 0.4					● ●														● ●																	F61	1
		TPMR 110304G 110308G	0.4 0.8					● ●					● ●																												
		TPMR 160304G 160308G	0.4 0.8					● ●					● ●																											E43	
Medium		TPMR 110304 110308	0.4 0.8	● ●		● ●		● ●	● ●				● ●			● ●	● ●	● ●	● ●		● ●	● ●			● ●		● ●	○ ○	□ ○								● ●			F61	
		TPMR 160304 160308	0.4 0.8	● ●		● ●		● ●	● ●		● ●		● ●			● ●	● ●	● ●	● ●	● ●	● ●	● ●			● ●	● ●	● ●	○ ○	□ ○	● ●							● ●				
Finishing	 Sharp Edge	TPGR 090202R-F 090202L-F	0.2 0.2					● ●																															F61	
		090204R-F 090204L-F	0.4 0.4					● ●																																

Applicable Chipbreaker Range

ap indicates radius

1



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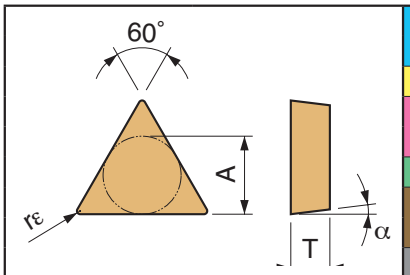
(mm)

Description	A	T	φd	α
TP_0902_	5.56	2.38	-	11°
TP_1103_	6.35	3.18	-	11°
TP_1603_	9.525	3.18	-	11°

60° Triangle / Positive without Hole



		Dimension (mm)	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide																MEGACOAT MEGACOAT NANO						PVD Coated Carbide			DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Insert	Description	rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
Handed Insert shows Left-hand																																										
Finishing / Finishing-Medium / Medium	TPGR 110302R-A	0.2			●		●	●					○																												●		E43 F61	1
	TPGR 110302L-A	0.2	●	●		○	●	●	●			●		○																											●			
	TPGR 110304R-A	0.4			●		●	●					○																												●			
	TPGR 110304L-A	0.4	●	●		○	●	●	●			●		○																											●			
	TPGR 110304R-B	0.4			●		●																																				
	TPGR 110304L-B	0.4	●	●		○	●	●	●		○		●	○																														
	TPGR 110308R-B	0.8			●		●																																				
	TPGR 110308L-B	0.8	●				●	●			○																																
	TPGR 160302R-B	0.2	●		●		●	●																																			
	TPGR 160302L-B	0.2	●	●	●	○	●	●	●	●	○	●	●	○																														
	TPGR 160304R-B	0.4	●		●		●	●																																	●			
	TPGR 160304L-B	0.4	●	●	●	○	●	●	●	●	○	●	●	○																											●			
	TPGR 160308R-B	0.8	●		●		●	●																																	●			
	TPGR 160308L-B	0.8	●	●	●	○	●	●	●			●		○																											●			
	TPGR 160304R-C	0.4	●		●		●	●																																			
	TPGR 160304L-C	0.4	●	●	●	○	●	●	●	●	○		●	○																														
	TPGR 160308R-C	0.8	●		●		●	●																																			
	TPGR 160308L-C	0.8	●	●	●	○	●	●	●				●	○																														
Cast Iron	TPGN 090202	0.2					□																																	●		F61	-
	TPGN 090204	0.4					●																																	●			
	TPGN 090208	0.8					●																																				
	TPGN 110302	0.2																																						●			
	TPGN 110304	0.4	●		●		●	●				●																												●			
	TPGN 110308	0.8	●		●		●	●				●																												●			
	TPGN 160304	0.4	●		●		●	●				●																												●			
	TPGN 160308	0.8	●		●		●	●				●																												●			
	TPGN 160312	1.2																																						●		E43 F61	
	TPMN 110304	0.4																	●							●			●											●			
	TPMN 110308	0.8																	●						●	●		○	●											●			
	TPMN 160304	0.4										●							●						●	●		○	●											●			
	TPMN 160308	0.8										●							●						●	●		○	●											●			
	TPMN 160312	1.2																								●		○	●														

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

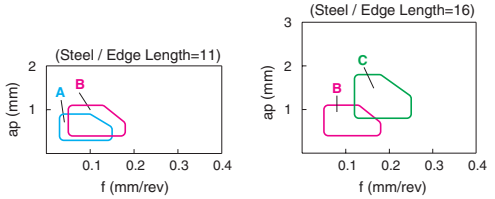
Without Chipbreaker

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

Applicable Chipbreaker Range

ap indicates radius

1



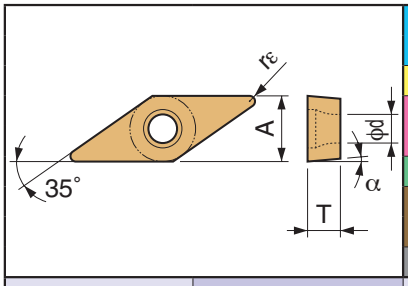
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

35° Rhombic / Positive with Hole

(mm)

Description	A	T	φd	α
VB_1103_	6.35	3.18	2.8	5°
VB_1604_	9.525	4.76	4.4	5°



Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	PVD Coated Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	VBMT 110302PP	0.2	●	●	●			●	●	●					●	●	●	●												●	●				●								
	VBMT 110304PP	0.4	●	●	●			●	●	●					●	●	●	●												●	●				●								
	VBMT 110308PP	0.8	●	●	●			●	●	●					●	●	●	●												●	●				●								
	VBMT 160404PP	0.4	●	●	●			●	●	●					●	●	●	●												●	●				●								
	VBMT 160408PP	0.8	●	●	●			●	●	●					●	●	●	●												●	●				●								
	VBMT 160412PP	1.2	●	●	●			●	●	●					●	●	●	●												●	●				●								
Finishing	VBMT 110304GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●			●	●								●					●	●		●				
	VBMT 160404GP	0.4	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●			●	●														●		●				
	VBMT 160408GP	0.8	●	●	●	○	●	●	●	●	○		●	○	●	●	●	●			●	●														●		●				
Finishing	VBMT 110302VF	0.2	●	●	●	○		●	●	●	○		●	○	●	●	●	●	□	●	●									●					●	●		●				1
	VBMT 110304VF	0.4	●	●	●	○		●	●	●	○		●	○	●	●	●	●	●	●	●	●								●					●	●		●				
	VBMT 110308VF	0.8	●	●	●	○		●	●	●	○		□	○	●	●	●	●	●	●	●	□								●					●	●		●				
	VBMT 160402VF	0.2	●	●	●	○		●	●	●	○		●	○	●	●	●	●	●	●	●														●		●				
	VBMT 160404VF	0.4	●	●	●	○		●	●	●	○		●	○	●	●	●	●	●	●	●	●													●		●				
	VBMT 160408VF	0.8	●	●	●	○		●	●	●	○		●	○	●	●	●	●	●	●	●	●													●		●				
	VBMT 160412VF	1.2	●	●	●	□		●	●	●	□			○	●	●	●	●			●	●																			
Finishing-Medium	VBMT 110304HQ	0.4	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●			●	●	●	●						●					●	●		●	●			
	VBMT 110308HQ	0.8	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●			●	●	●	●						●					●	●		●	●			
	VBMT 160404HQ	0.4	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●			●	●	●	●												●		●	●			
	VBMT 160408HQ	0.8	●	●	●	○	●	●	●	●	○	●	●	○	●	●	●	●			●	●	●	●												●		●	●			
	VBMT 160412HQ	1.2	●	●	●	○		●	●	●	○		●	○	●	●	●	●			●	●	●													●		●	●			
Finishing	VBET 1103003R-FSF	0.03					●																													●						2
	VBET 1103003L-FSF	0.03					●																													●						
	VBET 110301R-FSF	0.1					●																													●						
	VBET 110301L-FSF	0.1					●																													●						
	VBET 110302R-FSF	0.2					●																													●						
	VBET 110302L-FSF	0.2					●																													●						
	VBET 1103005MR-FSF	<0.05																													●						●				
	VBET 1103005ML-FSF	<0.05																													●						●				
	VBET 110301MR-FSF	<0.1																													●						●				
	VBET 110301ML-FSF	<0.1																													●						●				
	VBET 110302MR-FSF	<0.2																													●						●				
	VBET 110302ML-FSF	<0.2																													●						●				

Super Fine

Sharp Edge / Precision

Ref. to the table below

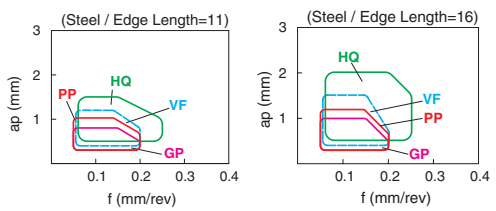
· Insert whose corner-R(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Insert Description	Ref. to Page for Applicable Toolholders
VB..1103 type	E30,E31,E36,F52,F54,F57
VB..1604 type	E30,E31,F52,F54,F57

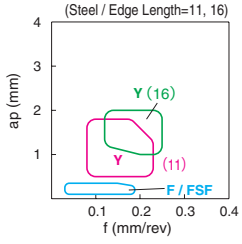
Applicable Chipbreaker Range

ap indicates radius

1



2



Inserts are sold in 10 piece boxes

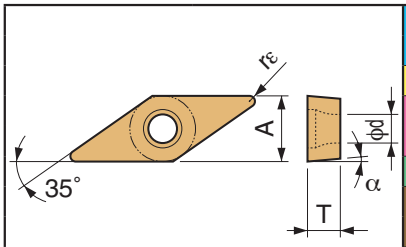
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

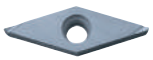
How to read pages of "Turning Inserts" B13

(mm)

Description	A	T	φd	α
VB_1103_	6.35	3.18	2.8	5°
VB_1604_	9.525	4.76	4.4	5°

35° Rhombic / Positive with Hole



Insert (Handed Insert shows Left-hand)	Description		Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing	NEW  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			●	○	●			○			○																			●					●				
		VBGT	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-Medium	NEW 	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	●	●				●	●																			●				●										

Ref. to the table below

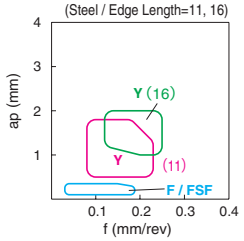
1

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

Insert Description	Ref. to Page for Applicable Toolholders
VB..1103 type	**E30,E31,E36,F52,F54,F57**
VB..1604 type	**E30,E31,F52,F54,F57**

Applicable Chipbreaker Range
ap indicates radius

1



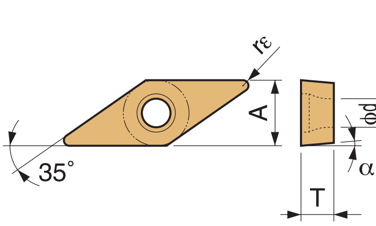
● : Std. Item ○ : Check Availability

Inserts are sold in 10 piece boxes

35° Rhombic / Positive with Hole

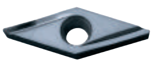
(mm)

Description	A	T	ϕd	α
VB_1103_	6.35	3.18	2.8	5°
VB_1604_	9.525	4.76	4.4	5°



Insert — Handed Insert shows Left-hand

Finishing-Medium



Description	rε	TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020
Dimension (mm)		Cermet					MEGACOAT Cermet					PVD Coated Cermet	
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													
VBGT 1103003R-Y	0.03												
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												

Description	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120
	CVD Coated 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															
VBGT 1103003R-Y															
1103003L-Y															
110301R-Y															
110301L-Y															
110302R-Y															
110302L-Y															
110304R-Y															
110304L-Y															
110308R-Y															
110308L-Y															
VBGT 160402R-Y															
160402L-Y															
160404R-Y															
160404L-Y															
160408R-Y															
160408L-Y															
VBGT 1103005MR-Y															
1103005ML-Y															
110301MR-Y															
110301ML-Y															
110302MR-Y															
110302ML-Y															
110304MR-Y															
110304ML-Y															
110308MR-Y															
110308ML-Y															
VBGT 160402MR-Y															
160402ML-Y															
160404MR-Y															
160404ML-Y															
160408MR-Y															
160408ML-Y															

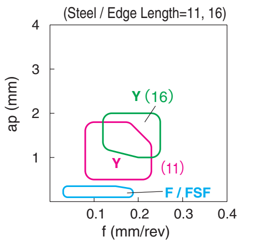
Description	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
	MEGACOAT / MEGACOAT NANO						PVD Coated Carbide				DLC	Carbide			
P Free-cutting steel								◕							
P Carbon Steel / Alloy Steel		◔					◔		◔						
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															
VBGT 1103003R-Y							●					●		Ref. to the table below	1
1103003L-Y							●								
110301R-Y							●					●			
110301L-Y							●					●			
110302R-Y							●					●			
110302L-Y							●					●			
110304R-Y							●					●			
110304L-Y							●					●			
110308R-Y							●					●			
110308L-Y							●					●			
VBGT 160402R-Y							●					●			
160402L-Y							●					●			
160404R-Y							●					●			
160404L-Y							●					●			
160408R-Y							●					●			
160408L-Y							●					●			
VBGT 1103005MR-Y		●						●	●						
1103005ML-Y		●							●						
110301MR-Y		●						●	●						
110301ML-Y		●							●						
110302MR-Y		●						●	●						
110302ML-Y		●						●	●						
110304MR-Y		●						●	●						
110304ML-Y		●						●	●						
110308MR-Y		●													
110308ML-Y		●													
VBGT 160402MR-Y		●						●	●						
160402ML-Y		●							●						
160404MR-Y		●						●	●						
160404ML-Y		●							●						
160408MR-Y		●							●						
160408ML-Y		●							●						

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

Insert Description	Ref. to Page for Applicable Toolholders
VB..1103 type	**E30,E31,E36,F52,F54,F57**
VB..1604 type	**E30,E31,F52,F54,F57**

Applicable Chipbreaker Range
ap indicates radius

1



Inserts are sold in 10 piece boxes

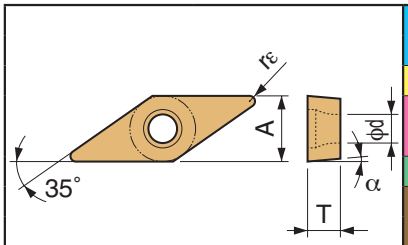
● : Std. Item ○ : Check Availability

How to read pages of "Turning Inserts" B13

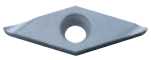
35° Rhombic / Positive with Hole

(mm)

Description	A	T	φd	α
VC_0802_	4.76	2.38	2.3	7°
VC_1604_	9.525	4.76	4.4	7°

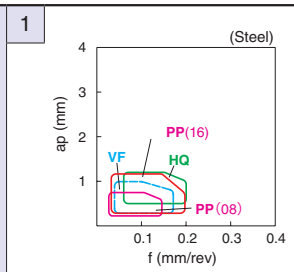


P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

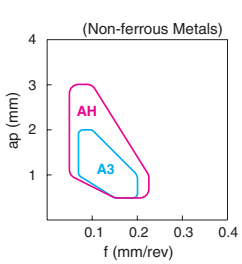
Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		VCMT 080202PP 080204PP	0.2 0.4	● ● ●					● ● ●							● ● ● ●														● ●				●										E36 F52 F54 F57	
		VCMT 160404PP 160408PP	0.4 0.8	● ● ●					● ● ●							● ● ● ●														● ●				●										E30 E31 F52 F54 F57	
Finishing		VCMT 080202VF 080204VF	0.2 0.4	● ● ● ○ ● ● ● ○					● ● ● ○ ● ● ● ○					○ ○		● ● ● ● ● ● ● ● ● ● ● ● ● ●															●				● ●			●							E36 F52	1
Finishing-Medium		VCMT 080202HQ 080204HQ	0.2 0.4	● ● ● ○ ● ● ● ● ○ ●					● ● ● ○ ● ● ● ● ○ ●					● ○ ● ○		● ● ● ● ● ● ● ● ● ● ● ● ● ●															●				● ●			● ●							F54 F57	
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	VCGT 160404AH	0.4																																					●	●			E30 E31 F52	2
Non-ferrous Metals	 Finishing-Medium / Sharp Edge	VCGT 160404R-A3 160404L-A3 160408R-A3 160408L-A3	0.4 0.4 0.8 0.8																																					● ●	● ●			F54 F57	

Applicable Chipbreaker Range
ap indicates radius

1



2



● : Std. Item ○ : Check Availability

Inserts are sold in 10 piece boxes

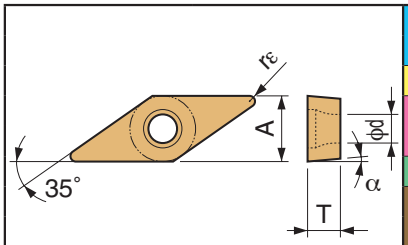
Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

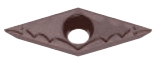
35° Rhombic / Positive with Hole

(mm)

Description	A	T	φd	α
VP_0802_	4.76	2.38	2.3	11°
VP_1103_	6.35	3.18	2.8	11°



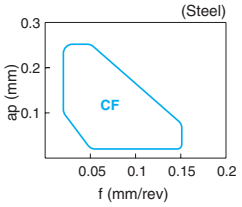
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to 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																																		●	●						
		110302M-CF	<0.2																																		●	●						1
Minute ap	 Sharp Edge / Polished	VPGT 110301MP-CF	<0.1																												●	●			●			●		●			
		110302MP-CF	<0.2																												●	●			●			●		●			
Finishing	 Sharp Edge	VPGT 110301MF-GF	<0.1																																			●						
		110302MF-GF	<0.2																																			●						2
Finishing	 Sharp Edge / Polished	VPGT 110301MFP-GF	<0.1																												●	●			●			●		●			
		110302MFP-GF	<0.2																												●	●			●			●		●			
Finishing		VPGT 080201CK	0.1																																		●						
		080202CK	0.2																																		●						3
		VPGT 110301CK	0.1																																		●						
		110302CK	0.2																																		●						
		VPGT 080201M-CK	<0.1																																			●	●				
		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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Insert Description	Ref. to Page for Applicable Toolholders
VP..0802 type	**E32,E33,F52**
VP..1103 type	**E21,E32,E33**

Applicable Chipbreaker Range
ap indicates radius

1


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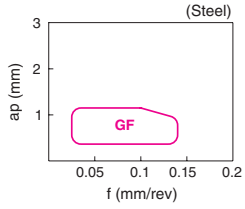
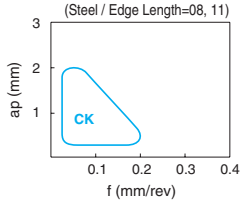


3


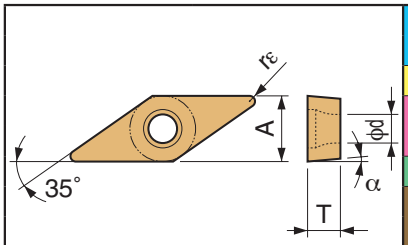
Inserts are sold in 10 piece boxes

● : Std. Item

(mm)

35° Rhombic / Positive with Hole

Description	A	T	φd	α
VP_0802_	4.76	2.38	2.3	11°
VP_1103_	6.35	3.18	2.8	11°



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

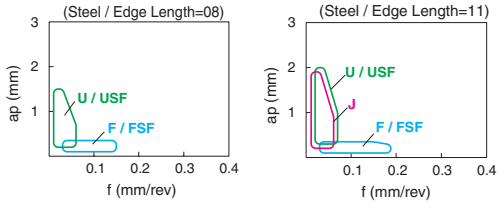
Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing — Super Fine	VPET 080201R-FSF	0.1					●																													●								
	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																													●							●						
Sharp Edge / Precision																																											Ref. to the table below B86	1
Finishing — NEW	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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range

ap indicates radius

1



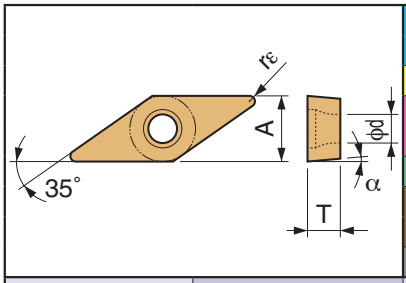
● : Std. Item □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

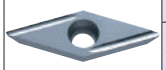
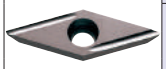
35° Rhombic / Positive with Hole

(mm)

Description	A	T	φd	α
VP_0802_	4.76	2.38	2.3	11°
VP_1103_	6.35	3.18	2.8	11°



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) rε	Cermet TN610	Cermet TN620	Cermet TN6010	Cermet TN6020	Cermet TN60	MEGACOAT Cermet PV710	MEGACOAT Cermet PV720	MEGACOAT Cermet PV7010	MEGACOAT Cermet PV7025	MEGACOAT Cermet PV7005	PVD Coated Cermet PV90	PVD Coated Cermet PV7020	CVD Coated Carbide CA510	CVD Coated Carbide CA515	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 CA4505	CVD Coated Carbide CA4515	CVD Coated Carbide CA4010	CVD Coated Carbide CA4115	CVD Coated Carbide CA4120	MEGACOAT NANO PR1425	MEGACOAT NANO PR1225	MEGACOAT NANO PR1305	MEGACOAT NANO PR1310	MEGACOAT NANO PR1325	MEGACOAT NANO PR1535	PVD Coated Carbide PR930	PVD Coated Carbide PR1005	PVD Coated Carbide PR1025	PVD Coated Carbide PR1125	DLC PDL025	Carbide KW10	Carbide SW05	Ref. to 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				●																											●							
Low Feed / Sharp Edge / Precision		VPET	080201MFR-USF	<0.1																												●			●						
			080201MFL-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	NEW 	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	NEW 	VPET	1103005MFR-J	<0.05																											●	●			●						
			110301MFR-J	<0.1																											●	●			●						
			110301MFL-J	<0.1																											●	●			●						
			110302MFR-J	<0.2																											●	●			●						
			110302MFL-J	<0.2																											●	●			●						

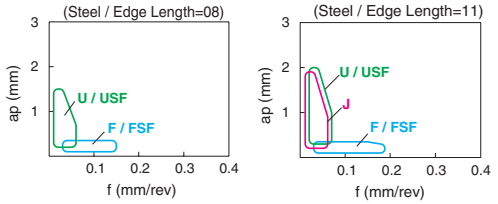
Ref. to the table below B86

1

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

Applicable Chipbreaker Range
ap indicates radius

1



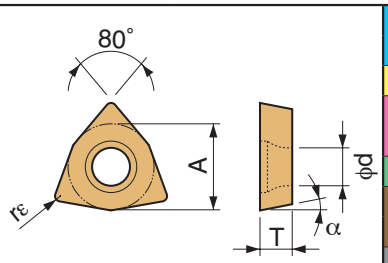
Inserts are sold in 10 piece boxes

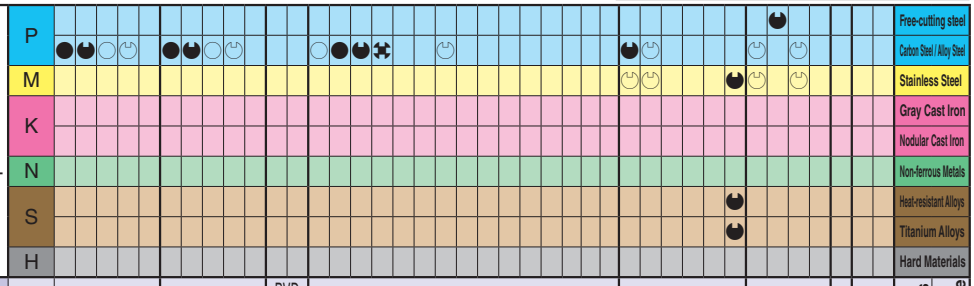
● : Std. Item □ : Deleted from the next catalogue

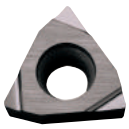
(mm)

Description	A	T	φd	α
WB_0601_	3.97	1.59	2.3	5°
WB_0802_	4.76	2.38	2.3	5°

80° Trigon / Positive with Hole





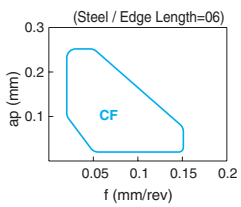
Insert (Handed Insert shows Left-hand)		Description	Dimension (mm) rε	Cermet TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet PV90	PV7020	CVD Coated Carbide CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide PR930	PR1005	PR1025	PR1125	DLC PDL025	Carbide KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Minute ap	 Sharp Edge	WBGT 060101MR-CF	<0.1																																		□						F59	1
		WBGT 060101ML-CF	<0.1																																		□							
		WBGT 060102MR-CF	<0.2																																		●							
		WBGT 060102ML-CF	<0.2																																		●							
Minute ap	 Sharp Edge / Polished	WBGT 060101MPR-CF	<0.1																												●	●			●		□							
		WBGT 060101MPL-CF	<0.1																												●	●			●		●							
		WBGT 060102MPR-CF	<0.2																												●	●			●		●							
		WBGT 060102MPL-CF	<0.2																												●	●			●		●							
Finishing		WBMT 060102R-DP	0.2					●																							●				●	●		●						
		WBMT 060102L-DP	0.2	●	●	●	○	●	●	●	●	○		○		●	●	●	●			●	●								●				●	●		●						
		WBMT 060104R-DP	0.4					●																							●				●	●		●						
		WBMT 060104L-DP	0.4	●	●	●	○	●	●	●	●	○		○		●	●	●	●			●	●								●				●	●		●						
		WBMT 080202R-DP	0.2					●													□	●									●				●	●		●					F59	
		WBMT 080202L-DP	0.2	●	●	●	○	●	●	●	●	○		○		●	●	●	●			●	●								●				●	●		●						
		WBMT 080204R-DP	0.4					●														●									●				●	●		●						
		WBMT 080204L-DP	0.4	●	●	●	○	●	●	●	●	○		○		●	●	●	●			●	●								●				●	●		●						
Finishing	NEW  Sharp Edge	WBET 0601005ML-F	<0.05																												●				●								2	
		WBET 060101MR-F	<0.1																												●				●									
		WBET 060101ML-F	<0.1																												●				●									
		WBET 060102MR-F	<0.2	●					●																						●				●									
		WBET 060102ML-F	<0.2	●	●				●	●																					●				●									
		WBET 060104MR-F	<0.4	●					●																						●				●									
		WBET 060104ML-F	<0.4	●	●				●	●																					●				●									
		WBET 080201MR-F	<0.1	●					●																																			
		WBET 080201ML-F	<0.1	●					●																						●				●									
		WBET 080202MR-F	<0.2	●					●																																			
		WBET 080202ML-F	<0.2	●	●				●	●																					●				●									
		WBET 080204MR-F	<0.4	●					●																						●				●									
		WBET 080204ML-F	<0.4	●	●				●	●																					●				●									

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

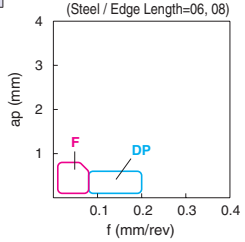
Applicable Chipbreaker Range

ap indicates radius

1



2



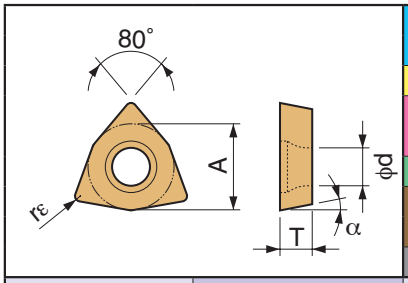
● : Std. Item ○ : Check Availability □ : Deleted from the next catalogue

Inserts are sold in 10 piece boxes

80° Trigon / Positive with Hole

(mm)

Description	A	T	φd	α
WB_0601_	3.97	1.59	2.3	5°
WB_0802_	4.76	2.38	2.3	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) rε	Cermet					MEGACOAT Cermet				PVD Coated Cermet		CVD Coated Carbide												MEGACOAT MEGACOAT NANO					PVD Coated Carbide				DLC	Carbide		Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
			TN610	TN620	TN6010	TN6020	TN60	PV710	PV720	PV7010	PV7025	PV7005	PV90	PV7020	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PR930	PR1005	PR1025	PR1125	PDL025	KW10	SW05		
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																																	●							
	080201R-F	0.1			●																														●							
	080201L-F	0.1			●		●																												●					●		
	080202R-F	0.2			●		●			●																									●							
	080202L-F	0.2			●	○	●			●	○		●	○																					●					●		
	080204R-F	0.4			●	○	●			●				□																					●					●		
	080204L-F	0.4			●	○	●			●	○		●	○																					●					●		
	WBGT 060101ML-F	<0.1																																		●	●					F59	
	060102MR-F	<0.2																																			●						
	060102ML-F	<0.2																																		●	●					
	060104MR-F	<0.4																																			●						
	060104ML-F	<0.4																																		●	●					
	WBGT 080201ML-F	<0.1																																			●						
	080202ML-F	<0.2																																			●						
	080204MR-F	<0.4																																			●						
	080204ML-F	<0.4																																			●						
Cast Iron	WBGW 060102L	0.2					●																																	●		
	060104L	0.4					●																																			
	WBGW 080202L	0.2					●																																	●		
	080204L	0.4					●																																			

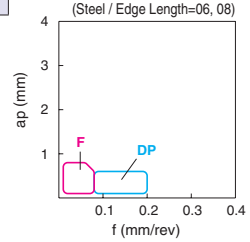
Sharp Edge

Without Chipbreaker

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

Applicable Chipbreaker Range
ap indicates radius

1



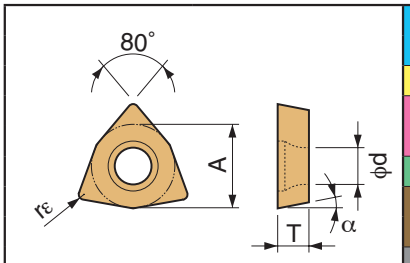
Inserts are sold in 10 piece boxes

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

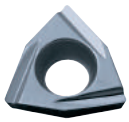
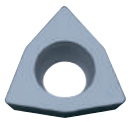
(mm)

80° Trigon / Positive with Hole

Description	A	T	φd	α
WP_1102_	6.35	2.38	2.8	11°
WP_1603_	9.525	3.18	4.4	11°



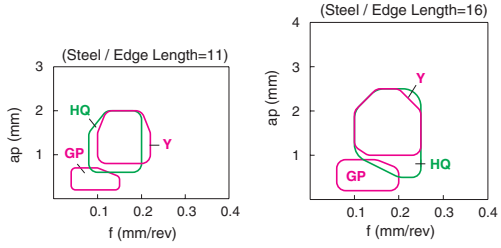
P Free-cutting steel / Carbon Steel / Alloy Steel
M Stainless Steel
K Gray Cast Iron / Nodular Cast Iron
N Non-ferrous Metals
S Heat-resistant Alloys / Titanium Alloys
H Hard Materials

Insert (Handed Insert shows Left-hand)	Description	Dimension (mm) rε	Cermet: TN610	TN620	TN6010	TN6020	TN60	MEGACOAT Cermet: PV710	PV720	PV7010	PV7025	PV7005	PVD Coated Cermet: PV90	PV7020	CVD Coated Carbide: CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	CA4010	CA4115	CA4120	MEGACOAT NANO: PR1425	PR1225	PR1305	PR1310	PR1325	PR1535	PVD Coated Carbide: PR930	PR1005	PR1025	PR1125	DLC: PDL025	Carbide: KW10	SW05	Ref. to Page for Applicable Toolholders	Applicable Chipbreaker Range
Finishing		WPMT 110204GP	0.4		●			●					●		●	●	●	●		□	●																●		●				F59	1
		WPMT 160304GP	0.4		●			●					●		●	●	●	●		●	●																●		●					
Finishing-Medium		WPMT 110202HQ	0.2		●			●					●		●	●	●	●		●	●																●		●					
		110204HQ	0.4	●	●	●	○	●	●	●	○		●	○	●	●	●	●		●	●	●	●	●												●		●	●				
		WPMT 160304HQ	0.4	●	●	●	○	●	●	●	○		●	○	●	●	●	●		●	●	●	●	●												●		●	●				1
		160308HQ	0.8	●	●	●	○	●	●	●	○		●	○	●	●	●	●		●	●	●	●	●												●		●	●				
Finishing-Medium		WPGT 110202L-Y	0.2					●																												●				●			
		110204R-Y	0.4																																	●							
		110204L-Y	0.4				○	●					●																							●				●			
		WPGT 160304R-Y	0.4					●																												●							
		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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

Applicable Chipbreaker Range
ap indicates radius

1



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

Inserts are sold in 10 piece boxes

B

Insert (Turning)

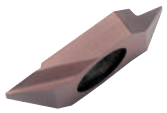
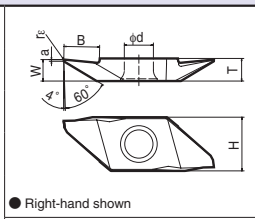
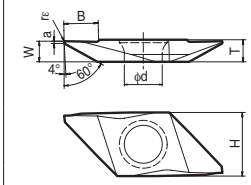
Inserts for Back Turning (Small Tools)

NEW

		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					

Ref. to Page for Applicable Toolholders

For KTKF toolholder

Insert (Photo shows Right-hand)	Description	W	a	B	rε	T	H	ϕd	MEGACOAT / MEGACOAT NANO PR1425	PR1535	PR1225	PVD Coated Carbide PR1025	Carbide KW10	Ref. to Page for Applicable Toolholders
	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				●	●	●	●	●	
 ● Right-hand shown	TKFB 12L28005MR	2.8	0.3	4.6	<0.05	3.0	8.7	5.2		●	●			
	TKFB 12L28010MR				<0.1					●	●			
 ● Left-hand shown	TKFB 16L38005MR	3.8	0.3	6.3	<0.05	4.0	9.5	5.2		●	●			
	TKFB 16L38010MR				<0.1					●	●			

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

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(rε)
- M: Indicates the corner-R(rε) has a minus tolerance
- R: Hand of Cutting Lead Angle (R: Right-hand)

Table1

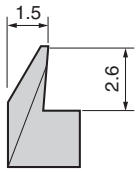
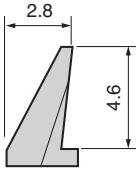
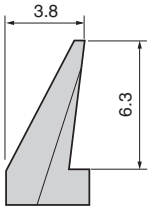
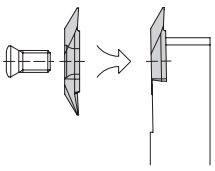
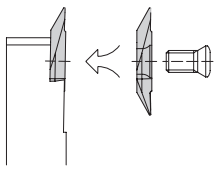
Small machining	General purpose	Large machining
		
TKFB12R15..	TKFB12R28..	TKFB16R38..

Table 2

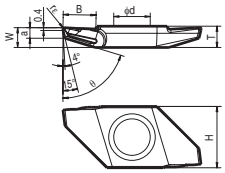
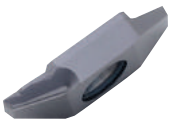
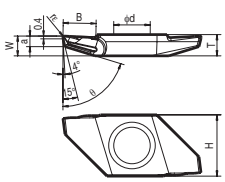
Toolholder	Right-hand (R)	Toolholder	Left-hand (L)
Insert	Right-hand (R)	Insert	Left-hand (L)
Lead angle	Right-hand (R)	Lead angle	Right-hand (R)
			

Inserts are sold in 10 piece boxes

● : Std. Item

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) NEW

Insert (Handed Insert shows Right-hand)		Description	W	a	B	rε	T	H	ϕd	θ	MEGACOAT / MEGACOAT NANO PR1425	PR1535	PR1225	Ref. to 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					●	●	●	

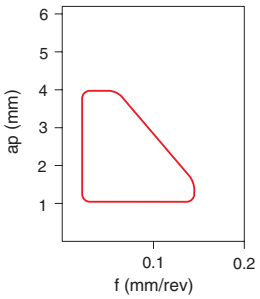
Inserts Identification System

TKFB 12 R 28 005 P -GQ

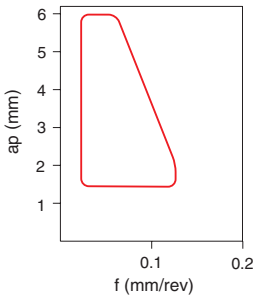
- TKFB: Insert Type
- 12: Insert Size
- R: Insert Hand (R: Right-hand)
- 28: Insert width
- 005: Corner-R(rε)
- P: Polished
- -GQ: GQ Chipbreaker

Applicable Chipbreaker Range

TKFB12R28...GQ



TKFB16R38...GQ



● : Std. Item

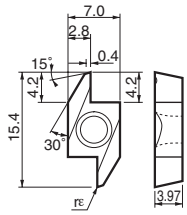
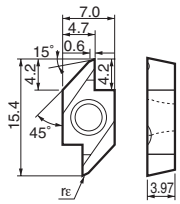
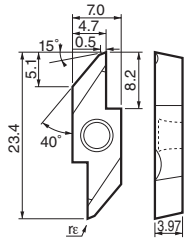
Inserts are sold in 10 piece boxes

B
Insert (Turning)

Inserts for Back Turning (Small Tools)

		NEW							
P	Free-cutting steel					●			Ref. to Page for Applicable Toolholders
	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

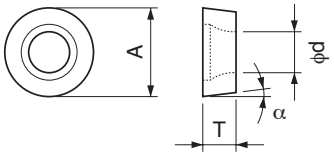
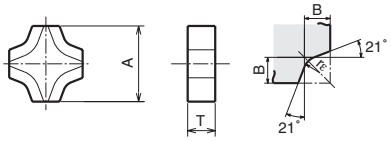
Insert (Handed Insert shows Right-hand)		Description		Dimension (mm) rε	Cermet	MEGACOAT MEGACOAT NANO		PVD Coated Carbide			Carbide	Ref. to Page for Applicable Toolholders
					TC60M	PR1425	PR1225	PR930	PR1005	PR1025	KW10	
		ABS	15R4005	0.05	●			●			●	E17
			15R4015	0.15	●			●			●	
		ABS	15R4005M	<0.05		●	●		●	●		
			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(rε) dimension expressed with less than sign (e.g. < 0.05, < 0.1, < 0.2 etc.) indicate models with minus tolerance for corner-R(rε).

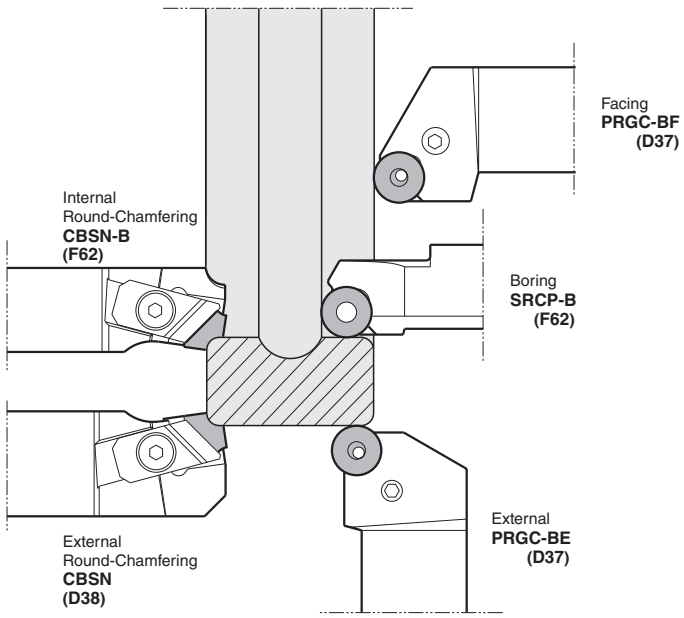
Inserts are sold in 10 piece boxes

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

Bearing Machining

Insert		Description	Dimension (mm) A	T	φd	rε	Relief Angle α	Cermet TN90	Ref. to Page for Applicable Toolholders
• External/Boring/Facing 		**RCMT 1204M0-BB**	12.0	4.76	4.2	-	7°	●	**D37**
		1606M0-BB	16.0	6.35	5.5			●	
		RPMT 1203M0-BB	12.0	3.18	4.4	-	11°	●	**F62**
		1604M0-BB	16.0	4.76	5.5			●	
• Round Chamfering 					B	rε			
		SNMF 120406-21	12.70	4.76	1.5	0.6	-	●	**D38**
		120410-21			3.0	1.0		●	
		120416-21			3.1	1.6		●	**F62**
		120421-21			3.2	2.1		●	
		120426-21			3.3	2.6		●	

Tooling for Bearing Machining

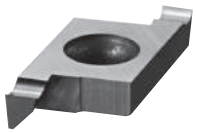
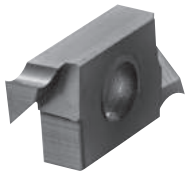


● : Std. Item

Inserts are sold in 10 piece boxes

Micro Boring

● Twin-Bars

Micro Boring	Micro Face Grooving
TWB Twin-Bars ➡F34	TWFG Twin-Bars ➡G72
	
TWBT Twin-Bars ➡F35	TWFGT Twin-Bars ➡G73
	

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

Micro Boring		Micro Back Boring
EZB EZ Bars ➡F14	EZVB EZ Bars ➡F20	-
NEW 	NEW 	-
VNB-S / VNB System Tip-Bars ➡F28	VNBX-S System Tip-Bars ➡F32	VNBT System Tip-Bars ➡F29
		
HPB 2-Edge Tip-Bars ➡F36	-	HPBT 2-Edge Tip-Bars ➡F36
	-	
PSB-S Tip-Bars ➡F37	-	PSBT-S Tip-Bars ➡F37
	-	

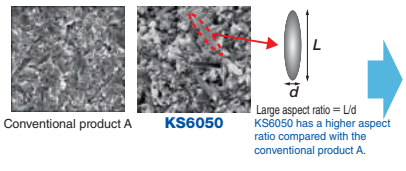
Solid Tip-Bars [Grooving / Threading]

Micro Grooving	Micro Face Grooving	Micro Internal Threading
EZG EZ Bars ➡G43	EZFG EZ Bars ➡G68	EZT EZ Bars ➡J24
NEW 	NEW 	NEW 
VNG System Tip-Bars ➡G45	VNFG System Tip-Bars ➡G70	VNT System Tip-Bars ➡J30
		
HPG 2-Edge Tip-Bars ➡G46	HPFG 2-Edge Tip-Bars ➡G71	HPT 2-Edge Tip-Bars ➡J28
		
PSG Tip-Bars ➡G46	PSFG Tip-Bars ➡G71	PST Tip-Bars ➡J30
		

High Speed Machining for Cast Iron KS6050/CS7050

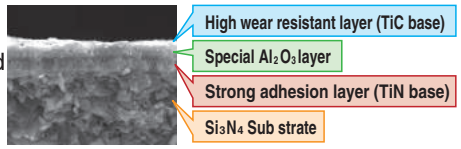
- Improved fracture resistance by high aspect ratio constituents
- Anti-chipping in scale processing and interrupted machining
- High speed machining of cast iron by controlling grain boundary phase (good wear resistance)

KS6050

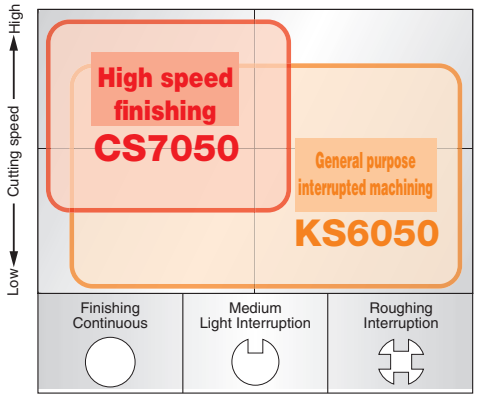


CS7050 (Coated Si_3N_4)

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

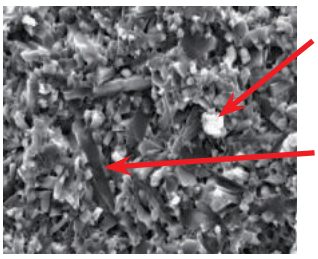


Application Map



Heat-Resistant Alloys Machining SiAlON Ceramic KS6030/KS6040

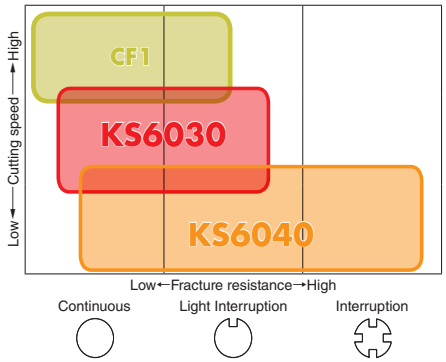
- Improved wear and fracture resistance due to the mixture of the hard and acicular particles



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

Application Map

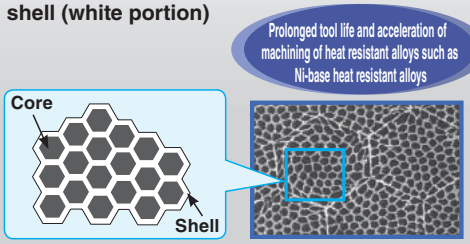
・Heat-Resistant Alloys Machining



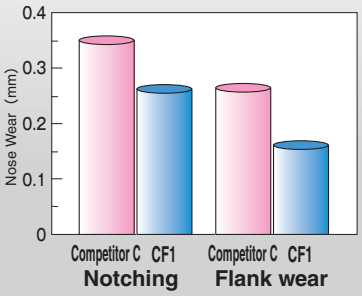
Heat-Resistant Alloys Machining Honeycomb structure Ceramic CF1

What is Honeycomb structure Ceramic?

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



Comparison of Wear Resistance



<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" Refer to Page B2

Edge Prep. (Ref. to the Table1)

Edge Preparation Identification System

Table1

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	

Ref. to Page B3 for insert color

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

80° Rhombic / Negative

(mm)

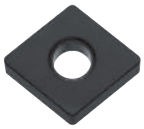
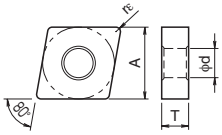
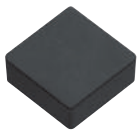
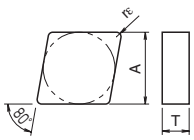
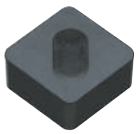
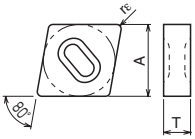
Description	A	T	φd
CN_A 1204_	12.70	4.76	5.16
CN_N 1204_	12.70	4.76	-
1207_		7.94	

(mm)

Description	A	T	φd
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) rε	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	Honeycomb structure Ceramic KS6040	CF1	Ref. to Page for Applicable Toolholders
		CNGA	120412S01025	S01025	1.2	●										D8 F63 F67 F68
		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	● ●										D22
		CNGN	120408T01020 120412T01020	T01020	0.8 1.2									● ●	● ●	
		CNGN	120404T02025 120408T02025 120412T02025 120416T02025	T02025	0.4 0.8 1.2 1.6					● ● ●	● ● ●	● ●		● ●		
		CNGN	120708S01525 120712S01525	S01525	0.8 1.2				● ●							
		CNGN	120708T01020 120712T01020	T01020	0.8 1.2										● ●	
		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									● ●		D28 F80
		CNGX	120708T02025 120712T02025 120716T02025	T02025	0.8 1.2 1.6						● ● ●	● ● ●		● ●		

Inserts are sold in 10 piece boxes

● : Std. Item

55° Rhombic / 75° Rhombic / Negative

(mm)

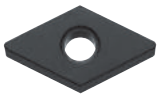
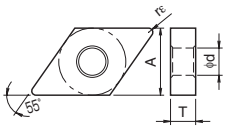
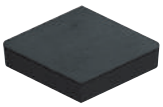
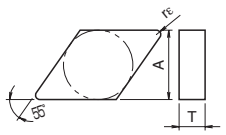
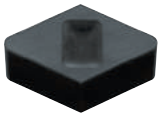
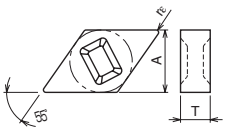
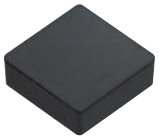
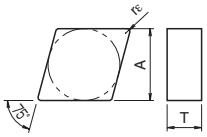
Description	A	T	φd
DNGA 1504_	12.70	4.76	5.16
1506_		6.35	
DNGN 1504_	12.70	4.76	-
1507_		7.94	

(mm)

Description	A	T	φd
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

		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	Ref. to Page for Applicable Toolholders
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) rε	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	Ref. to Page for Applicable Toolholders
 	DNGA	150408S01025	S01025	0.8	●										D10 D11 F64 F70 F71
		150412S01025		1.2	●										
	DNGA	150404S01525	S01525	0.4				●							
		150408S01525		0.8				●							
	DNGA	150404S02025	S02025	0.4					●						
		150408S02025		0.8					●						
	DNGA	150408S03030	S03030	0.8				●							
	DNGA	150404T02025	T02025	0.4		●			●						
		150408T02025		0.8		●	●		●						
		150412T02025		1.2			●		●						
	DNGA	150604T02025	T02025	0.4			□		●						D10 D11 F64
		150608T02025		0.8			●		●						
		150612T02025		1.2			□		●						
 	DNGN	150408T02025	T02025	0.8					●						-
	DNGN	150704S01525	S01525	0.4				●							D23
		150708S01525		0.8				●							
		150712S01525		1.2				●							
	DNGN	150704S02025	S02025	0.4					●						
		150708S02025		0.8					●						
		150712S02025		1.2					●						
	DNGN	150704T02025	T02025	0.4		●									
		150708T02025		0.8		●									
		150712T02025		1.2		●									
		150716T02025		1.6		●									
 	DNGX	120708T02025	T02025	0.8						●					D29 F80
		120712T02025		1.2						●					
	DNGX	150708T02025	T02025	0.8						●	●				D29
		150712T02025		1.2						●	●				
 	ENGN	130708S01525	S01525	0.8				●							D23 F79
		130712S01525		1.2				●							
	ENGN	130708S02025	S02025	0.8					●						
		130712S02025		1.2					●						
	ENGN	130704T02025	T02025	0.4		●			●						
		130708T02025		0.8		●			●						
		130712T02025		1.2		●			●						
		130716T02025		1.6		●			●						
		130720T02025		2.0		●			●						
		130730T02025		3.0		□			●						

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

Inserts are sold in 10 piece boxes

Turning Indexable Inserts

How to read pages of "Turning Inserts" B13

Round / Negative

(mm)

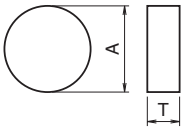
Description	A	T	φd
RNGN 0903_	9.525	3.18	-
0904_		4.76	
0907_		7.94	
1204_	12.70	4.76	

(mm)

Description	A	T	φd
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) rε	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	Ref. to Page for Applicable Toolholders
	RNGN	090300E003	E003	-								●			
		090300E005	E005	-									●		
		090300T01020	T01020	-								●	●		
	RNGN	090400S01525	S01525	-				●							D33
		090400S02025	S02025	-					●						
		090400T01020	T01020	-										●	
		090400T02025	T02025	-		●			●						
	RNGN	090700T01020	T01020	-										●	-
	RNGN	120400E003	E003	-								●			
		120400E005	E005	-									●		
		120400S01525	S01525	-				●							
		120400S02025	S02025	-					●						
		120400T01020	T01020	-								●	●	●	
		120400T02025	T02025	-		●	●		●	●	●				D27
	RNGN	120700E003	E003	-								●			D33
		120700E005	E005	-									●		
		120700K15015	K15015	-					●						
		120700S01525	S01525	-				●							
		120700S02025	S02025	-					●						
		120700T01020	T01020	-								●	●	●	
		120700T02025	T02025	-		●	●		●	●	●				
	RNGN	150700S01525	S01525	-				●							
		150700S02025	S02025	-					●						D27
		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 MTO : Made to order

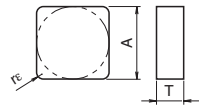
(mm)

90° Square / Negative

Description	A	T	φd
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) rε	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	Ref. to Page for Applicable Toolholders
		SNGA	120408S01525 120412S01525	S01525	0.8 1.2				● ●							D12 D13 F73
		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	● ● ● ●										D25 D34 D35 F79
		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 catalogue

Inserts are sold in 10 piece boxes

90° Square / Negative

(mm)

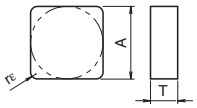
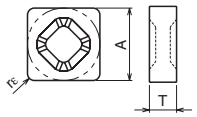
Description	A	T	φd
SN_N1207_	12.70	7.94	-
SNGN1507_	15.875	7.94	

(mm)

Description	A	T	φd
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) rε	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	Ref. to Page for Applicable Toolholders
		SNGN 120704T02025	T02025	0.4		●									D25 D34 D35 F79
		SNGN 120708T02025		0.8		●			●						
		SNGN 120712T02025		1.2		●			●						
		SNGN 120716T02025		1.6		●			●	●	●				
		SNGN 120720T02025		2.0		●			●						
		SNMN 120716T02025	T02025	1.6		●									
		SNGN 150712T02025	T02025	1.2		●			●						D25
		SNGN 150716T02025		1.6		●									
		SNGX 120712T01020	T01020	1.2									●		D30 D31 F80
		SNGX 120716T01020		1.6									●		
		SNGX 120712T02025	T02025	1.2						●	●		●		
		SNGX 120716T02025		1.6						●	●		●		
		SNGX 150716T02025	T02025	1.6						●					D30 D31

Inserts are sold in 10 piece boxes

● : Std. Item

60° Triangle / Negative

(mm)

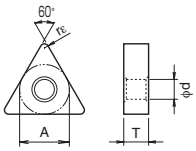
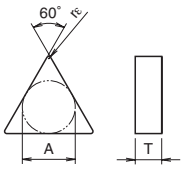
Description	A	T	φd
TNGA 1604_	9.525	4.76	3.81
TNGN 1103_	6.35	3.18	-

(mm)

Description	A	T	φd
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	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)						○	◔				
	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) rε	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	Ref. to Page for Applicable Toolholders
 	TNGA 160408S01025	S01025	0.8	●										D14 D15 F64 F74 F75
	TNGA 160404S01525 160408S01525 160412S01525	S01525	0.4 0.8 1.2				● ● ●							
	TNGA 160404S02025 160408S02025 160412S02025	S02025	0.4 0.8 1.2					● ● ●						
	TNGA 160408S03030 160412S03030	S03030	0.8 1.2				● ●							
	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		● ● ●			● ● ●						D36 F81
	TNGN 160404S01025 160408S01025 160412S01025 160416S01025 160420S01025	S01025	0.4 0.8 1.2 1.6 2.0	● ● ● ● ●										D26
	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 160708S01525	S01525	0.8				●							
	TNGN 160708S02025	S02025	0.8					●						
	TNGN 160704T02025 160708T02025 160712T02025 160716T02025 160720T02025	T02025	0.4 0.8 1.2 1.6 2.0		● ● ● ● ●			● ● ●						

● : Std. Item

Inserts are sold in 10 piece boxes

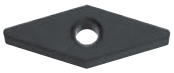
35° Rhombic / Negative

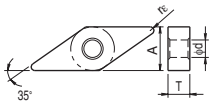
(mm)

Description	A	T	φd
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) rε	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	Ref. to Page for Applicable Toolholders
	VNGA 160404S01525	S01525	0.4				●							D16 D17 D18
	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)

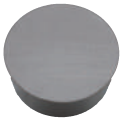
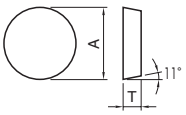
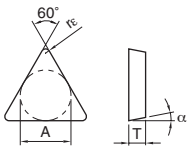
Description	A	T	α
RPGN0903_	9.525	3.18	11°
RPGN1204_	12.70	4.76	
SPGN0903_	9.525	3.18	
SPGN1203_	12.70	3.18	

(mm)

Description	A	T	α
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)	Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitride Ceramic	SiAlON Ceramic		Honeycomb structure Ceramic	Ref. to Page for Applicable Toolholders
					rε	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	
		RPGN	090300E003	E003	-								●			-
			090300E005	E005	-									●		
			090300T01020	T01020	-								●	●		
		RPGN	120400E003	E003	-								●			
			120400E005	E005	-									●		
			120400T01020	T01020	-								●	●		
		SPGN	090308T00820	T00820	0.8		●			●						E42 F60
		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			●		● ●						F61
		TPGN	110304S00820 110308S00820	S00820	0.4 0.8				● ●	● ●						E43 F61
		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

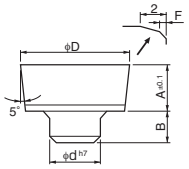
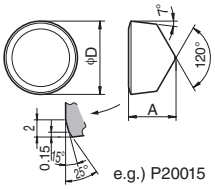
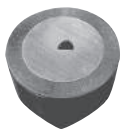
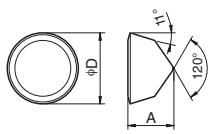
● : Std. Item

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

		Aluminum Oxide Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitride Ceramic	SiAlON Ceramic		Ref. to Page for Applicable Toolholders
		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)																
				ϕD	ϕd	A	B	F	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	
		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 + Honed Cutting Edge	P20015	2.00mm X 15° Chamfered + 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

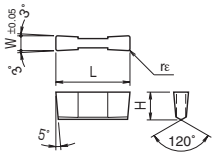
Inserts are sold in 10 piece boxes

● : Std. Item

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		

		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) W	rε	L	H	KA30	A65	KT66	A66N	PT600M	KS6050	CS7050	KS6030	KS6040	CF1	Ref. to Page for Applicable Toolholders
		GH 4020-05	S01020	4.0	0.5	20	7.5				●							
		4020-05	T01020						●			●						
		5020-05	S01020	5.0							●							G38
		5020-05	T01020						●			●						G61
		6020-05	T01020	6.0					●			●						
		7020-05	T01020	7.0					●			●						

● : Std. Item

Inserts are sold in 10 piece boxes