

B

TURNING INSERTS

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INSERT IDENTIFICATION SYSTEM

B
TURNING
INSERTS

Symbol	Insert
H	Hexagon
O	Octagon
P	Pentagon
S	Square
T	Triangle
C	80° Diamond
D	55° Diamond
E	75° Diamond
F	50° Diamond
M	86° Diamond
J	70° Diamond
V	35° Diamond
Z	25°/15° Diamond
W	80° Trigon
L	Rectangle
A	85° Parallelogram
B	82° Parallelogram
K	55° Parallelogram
R	Round
Shown angle stands for acute angle for diamond and parallelogram inserts.	

Symbol	Relief Angle	Tolerance					
		Corner Height		Thickness		I.C. Size	
Symbol	(Class)	ANSI (±inch)	ISO (±mm)	ANSI (±inch)	ISO (±mm)	ANSI (±inch)	ISO (±mm)
A	3°	0.0002	0.005	0.0010	0.025	0.0010	0.025
F	0.0002	0.005	0.0010	0.025	0.0005	0.013	
C	0.0005	0.013	0.0010	0.025	0.0010	0.025	
H	0.0005	0.013	0.0010	0.025	0.0005	0.013	
E	0.0010	0.025	0.0010	0.025	0.0010	0.025	
G	0.0010	0.025	0.0050	0.130	0.0010	0.025	
J	0.0002	0.005	0.0010	0.025	0.002-0.006	0.05-0.15	
K*	0.0005	0.013	0.0010	0.025	0.002-0.006	0.05-0.15	
L*	0.0010	0.025	0.0010	0.025	0.002-0.006	0.05-0.15	
M**	0.003-0.007	0.080-0.180	0.0050	0.130	0.002-0.006	0.05-0.15	
N**	0.003-0.007	0.080-0.180	0.0010	0.025	0.002-0.006	0.05-0.15	
U**	0.005-0.015	0.130-0.380	0.0050	0.130	0.003-0.009	0.08-0.25	
P	11°						

* Insert's periphery is as fired.

Tolerance difference depends on size and shape of insert

Symbol	Hole	Hole Shape	Chipbreaker	Insert
N	No	-	No	
			One Side	
			Two Sides	
A	With Hole	With Hole	No	
			One Side	
			Two Sides	
W	With Hole and One Countersink 40°-60°	With Hole and One Countersink 40°-60°	No	
			One Side	
			Two Sides	
Q	With Hole and Two Countersink 40°-60°	With Hole and Two Countersink 40°-60°	No	
			Two Sides	
			Yes	
B	With Hole and One Countersink 70°-90°	With Hole and One Countersink 70°-90°	No	
			One Side	
			Two Sides	
C	With Hole and Two Countersink 70°-90°	With Hole and Two Countersink 70°-90°	No	
			Two Sides	
			Yes	
X	-	-	-	-

ISO
(metric)

C
①

N
②

M
③

G
④

12
⑤

04
⑥

08
⑦

PG
⑧

ANSI
(inch)

C
①

N
②

M
③

G
④

4
⑤

3
⑥

2
⑦

PG
⑧

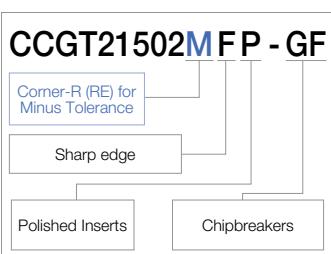
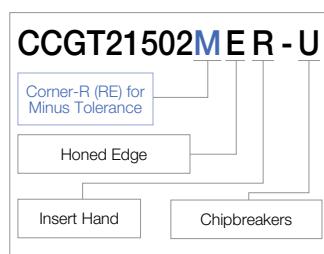
⑤ Edge Length Symbol (ISO)								I.C. Size (mm)	I.C. Size (ANSI)	
C	D	S	R	T	V	W		I.C. Size (mm)	I.C. Size (inch)	Symbol
03	04		03	06				3.97	5/32	1.2
04	05		04	08	08			4.76	3/16	1.5
	05					5				
05	06		05	09		03		5.56	7/32	1.8
	06					6				
06	07		06	11	11	04		6.35	1/4	2
08	09		07	13		05		7.94	5/16	2.5
	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.

Positive Insert Identification System (e.g. of (8) Manufacturer's Option)



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

- If a minus tolerance is specified for the corner-R (RE) as shown in the Fig.1, using an insert with corner-R (RE) = 0.008" may result in larger radius than specified.
- Use an insert with a corner R (RE) that has a minus tolerance.

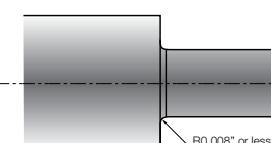


Fig.1 Example of a specified corner-R in the drawing

INSERT COLORS

■ Insert Color

- Cermet, CVD Coated Cermet, MEGACOAT NANO Cermet, MEGACOAT Cermet, and PVD Coated Cermet

Insert Color	Grades	Cermet	CVD Cermet	MEGACOAT NANO Cermet	MEGACOAT Cermet	PVD Cermet
	TN610					
	TN620					
	TN620M					
	TN6010					
	TN6020					
	TN60					
	TN100M					
	TC40					
	TC60		CCX	PV710	PV720	
	TC40			PV730	PV60M	
	TC60				PV7005	PV7010
	TC40				PV7025	PV7040
	TC60				PV7020	PV90

● CVD Coated Carbide

Insert Color	Grades	CVD Coated Carbide				
	CA310					
	CA315					
	CA320					
	CA415D					
	CA520D					
	CA420M					
	CA4505					
	CA4515					
	CA4010					
	CA4115					
	CA4120					
	CA510					
	CA515					
	CA025P					
	CA525					
	CA530					
	CA55 Series					
	CA65 Series					
	CR9025					

● PVD Coated Carbide

Insert Color	Grades	MEGACOAT NANO					MEGACOAT NANO PLUS		MEGACOAT NANO HARD		MEGACOAT					PVD Coated Carbide			
	PR1425																		
	PR1510																		
	PR1515																		
	PR1525																		
	PR1535																		
	PR1625																		
	PR1705																		
	PR1725																		
	PR005S																		
	PR015S																		
	PR1210																		
	PR1215																		
	PR1225																		
	PR1230																		
	PR1305																		
	PR1310																		
	PR1325																		
	PR60																		
	PR80																		
	PR905																		
	PR915																		
	PR930																		
	PR1005																		
	PR1025																		
	PR1115																		
	PR1125																		

● Ceramic

Insert Color	Grades	Alumina Ceramic			PVD Coated Ceramic	MEGACOAT Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitride Ceramic	SiAlON Ceramic	Whisker Reinforced Ceramic	Cell Fiber Ceramic
	KA30										
	A65										
	KT66										
	A66N										
	PT600M										
	KS6015										
	KS6050										
	CS7050										
	KS6030										
	KS6040										
	KXW1										
	CF1										

● CBN and PCD

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

● DLC Coated Carbide

Insert Color	Grades	DLC	
	PDL010		
	PDL025		

● Uncoated Carbide

Insert Color	Grades	Carbide	
	GW05		
	GW15		
	GW25		
	KW10		
	SW05		

INDEX	TECHNICAL	SPARE PARTS	QUICK CHANGE TOOLING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING
INDEX	TECHNICAL	SPARE PARTS	QUICK CHANGE TOOLING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING
INDEX	TECHNICAL	SPARE PARTS	QUICK CHANGE TOOLING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING
INDEX	TECHNICAL	SPARE PARTS	QUICK CHANGE TOOLING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING
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INDEX	TECHNICAL	SPARE PARTS	QUICK CHANGE TOOLING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING	THREADING	CUT-OFF	THRENDING	MILLING	DRILLING</			

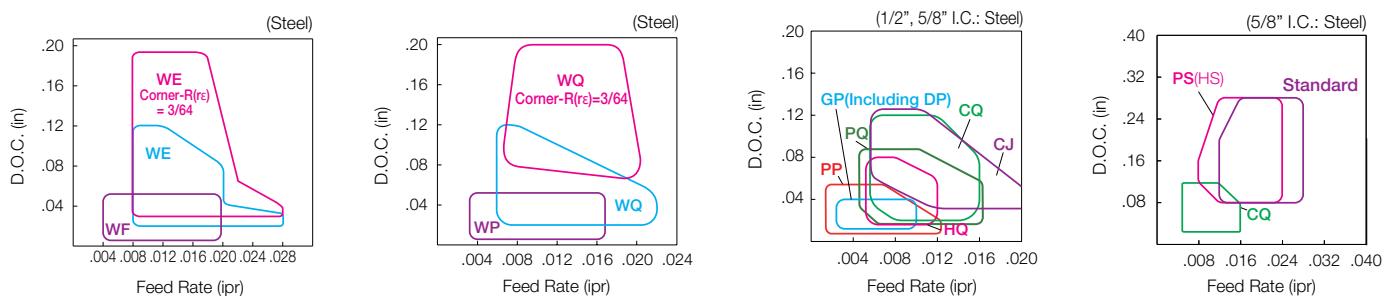
CHIPBREAKER SELECTION (NEGATIVE INSERTS)

Steel

1 Molded Chipbreaker

Finishing (Wiper Edge)	WF			Good chip control in finishing operations. Excellent surface finish by controlling adhesion. Less cutting force due to sharp cutting edge.	Finishing	PP			3-step dot structure realizes stable chip control at a wide range of feed rates. Less cutting force due to sharp cutting edge and smooth rake face.
	WP			Double feed rate is available for finishing to light machining, while maintaining a smooth finish.		PQ			Stable chip control over a wide feed rate range. Well-balanced edge sharpness and toughness.
	WE			Wide application range is available with improved chip control and high stability. Good surface finish at high feed rates.		GP			Finishing to light machining. Good chip control.
Finishing-Medium (Wiper Edge)	WQ			Double feed rate possible while maintaining a smooth finish. High efficiency and good chip control.	Finishing-Medium	HQ			Sharp cutting performance with 3-D rake angle and double projection design.
						CQ			Good chip control at various D.O.C. such as copying. Applicable for up-facing.

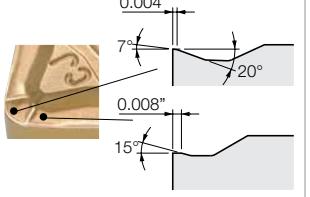
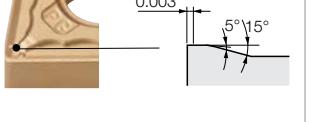
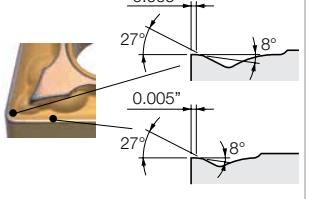
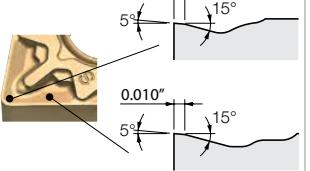
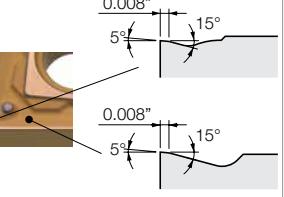
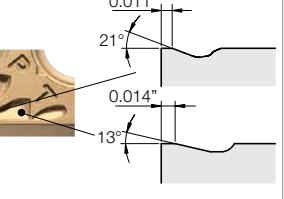
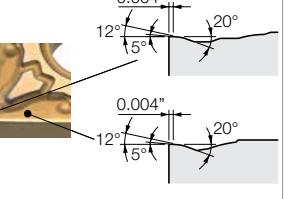
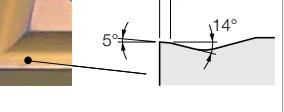
● Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



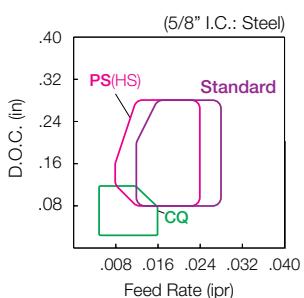
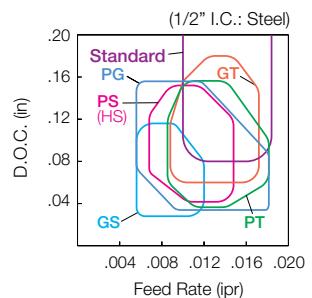
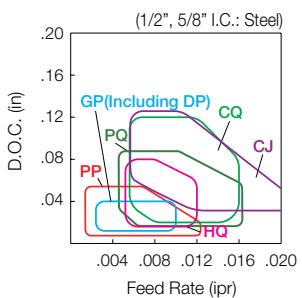
CHIPBREAKER SELECTION (NEGATIVE INSERTS)

Steel

1 Molded Chipbreaker

CJ	Finishing-Medium (Up-Facing)	  <p>Ensures chips will curl even in small depth, high feed rate machining. Improves chip evacuation when copying and up-facing.</p>
PG	Medium-Roughing	  <p>Stable machining with a balance of edge sharpness and strength. Prevents chip clogging at high feed rates. Good chip control at low feed rates. Stable machining with wide chip control range.</p>
GS	Medium-Roughing	  <p>Strong edge chipbreaker. Stable for continuous machining and light interrupted machining.</p>
PS	Medium-Roughing	  <p>General purpose chipbreaker. More stable due to large contact surface.</p>
HS	Medium-Roughing	  <p>General purpose chipbreaker. Applicable for copying.</p>
PT	Medium-Roughing / High Feed Rate	  <p>Low cutting force during high feed machining. Land support structure.</p>
GT	Medium-Roughing / High Feed Rate	  <p>Strong edge chipbreaker. Wide land design and smooth chip control even at high feed rate machining.</p>
Roughing	Roughing	  <p>Low cutting force and suitable for large D.O.C. roughing.</p>

- **Applicable Chipbreaker Range** (D.O.C. Refers to Radial Depth of Cut)

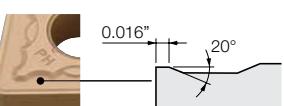
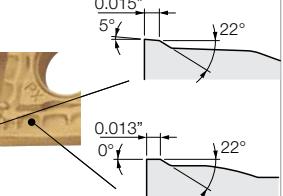


A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERT GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

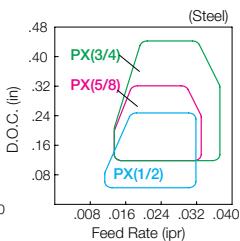
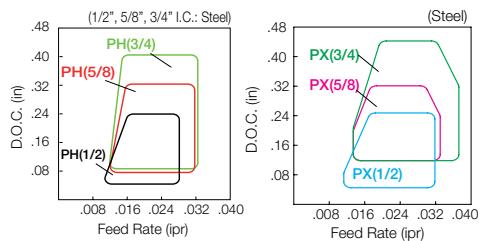
CHIPBREAKER SELECTION (NEGATIVE INSERTS)

Steel

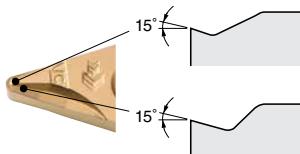
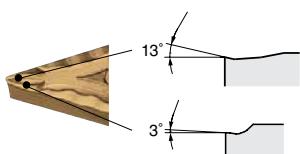
1 Molded Chipbreaker

Roughing	PH			For roughing of steel and cast iron. Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge.
	PX			Single Sided Roughing (High Feed Rate) Roughing and high feed rate operation. Low cutting force chipbreaker.

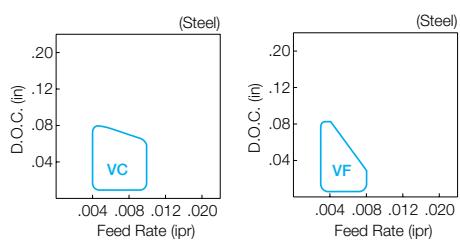
● Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



Steel (Copying / Undercutting, Varied D.O.C.)

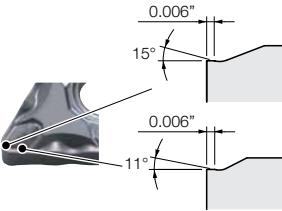
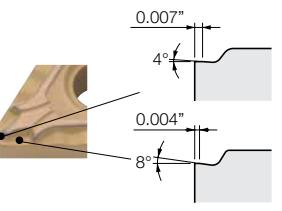
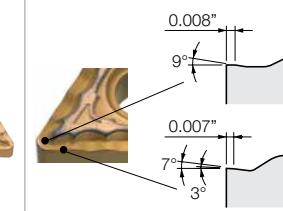
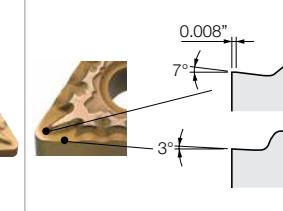
Finishing-Medium	VC			Handed chipbreaker for copying. Good chip control at varied D.O.C. because of the large space on the main cutting edge side.
Finishing-Medium	VF			Good chip control for varied D.O.C. such as copying and undercutting.

● Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)

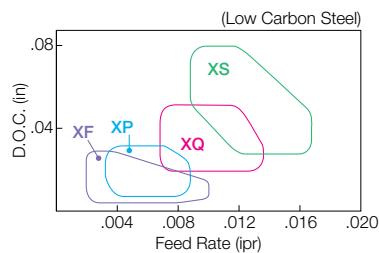


CHIPBREAKER SELECTION (NEGATIVE INSERTS)

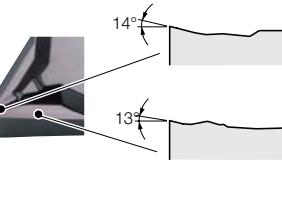
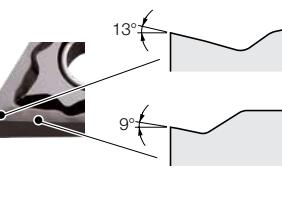
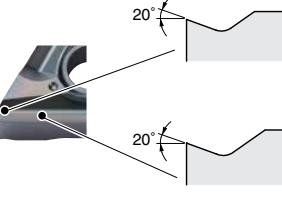
Steel (Copying / Undercutting, Varied D.O.C.)

	Finishing	XF		Excellent chip control at high speed and small D.O.C. machining of low carbon steel.	
	Finishing	XP		Short chips when finishing due to sharp cutting and special design.	
	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 angle design.	

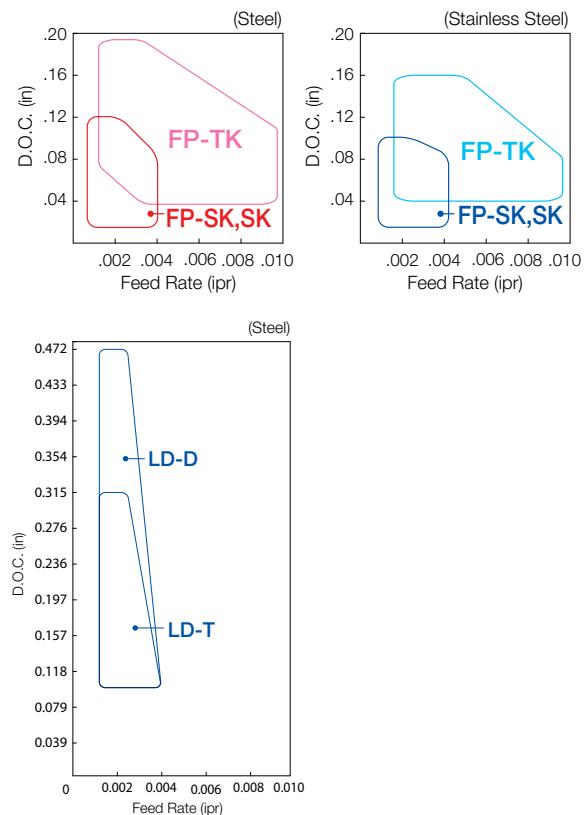
Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



Steel / Stainless Steel (Small Parts Machining)

	Finishing-Medium	SK		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 D.O.C..
	Medium-Roughing	FP-TK		For medium to high feed rate in automatic lathes (When machining workpieces of medium to large dia.) Superior cutting performance achieved by sharp edge and polished surface. Smooth chipbreaker geometry improves chip flow with less adhesion. Large curled chips.
	Large D.O.C.	LD		Available for greater depths of cut than many conventional chipbreakers. Achieves high-precision machining in a single pass. Chipbreaker shape optimized for various depths of cut. Stable chip control in a wide range of machining applications.

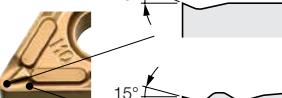
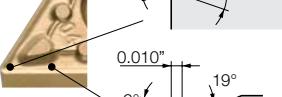
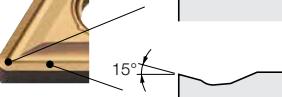
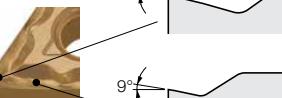
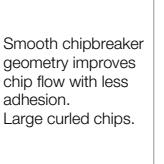
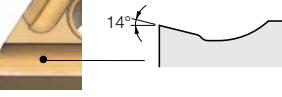
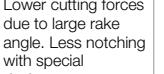
Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



A	TURNING INSERTS
B	CBN/PCD INSERTS
C	TURNING HOLDERS
D	SMALL TOOLS
E	BORING
F	GROOVING
G	CUT-OFF
H	THREADING
J	DRILLING
K	MILLING
M	QUICK-CHANGE TOOLING
N	SPARE PARTS
P	TECHNICAL
R	INDEX

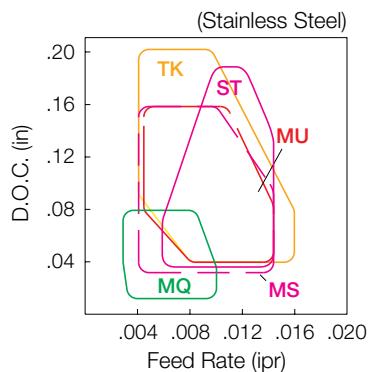
CHIPBREAKER SELECTION (NEGATIVE INSERTS)

■ Stainless Steel / Heat-Resistant Alloy / Titanium Alloy

FINISHING INSERTS B	Finishing	MQ				Large rake angle and circular edge line. 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.
MEDIUM-ROUGHING INSERTS	Medium-Roughing	TK				Smooth chipbreaker geometry improves chip flow with less adhesion. Large curled chips.
	Medium-Roughing	ST				Lower cutting forces due to large rake angle. Less notching with special design.
	Medium-Roughing					

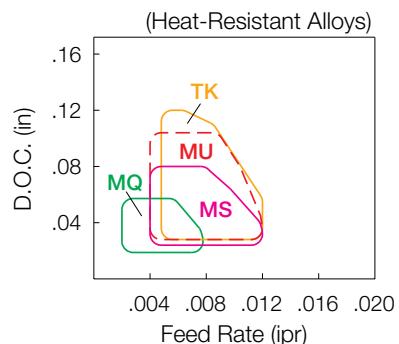
● Stainless Steel

Applicable Chipbreaker Range
(D.O.C. Refers to Radial Depth of Cut)



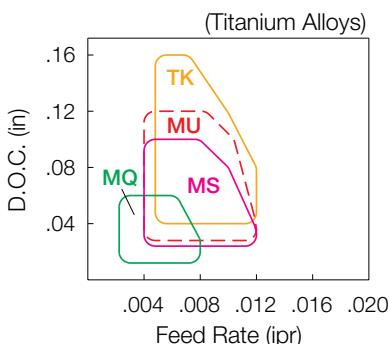
● Heat-Resistant Alloy

Applicable Chipbreaker Range
(D.O.C. Refers to Radial Depth of Cut)

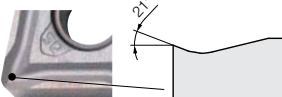
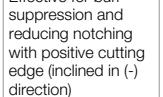
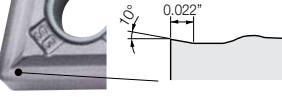
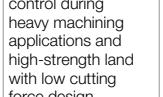
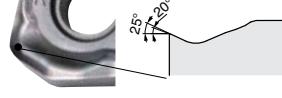
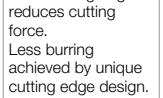
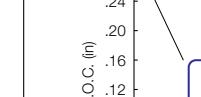
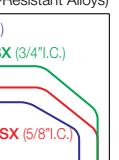
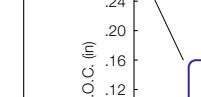
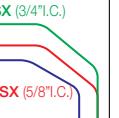
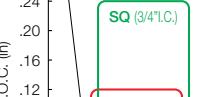
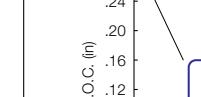
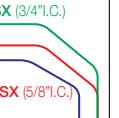


● Titanium Alloy

Applicable Chipbreaker Range
(D.O.C. Refers to Radial Depth of Cut)

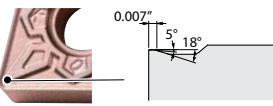
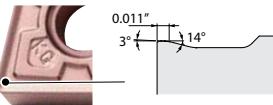
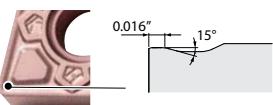


■ Heat-Resistant Alloy

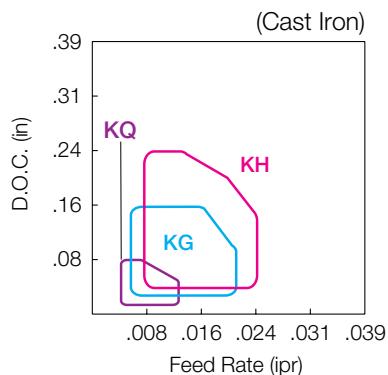
FINISHING-MEDIUM INSERTS	Finishing-Medium	SQ				Effective for burr suppression and reducing notching with positive cutting edge (inclined in (-) direction)
	Roughing	SG				Stable chip control during heavy machining applications and high-strength land with low cutting force design.
	Roughing (Single Sided)	SX				Slant cutting edge reduces cutting force. Less burring achieved by unique cutting edge design.
ROUGHING INSERTS	Finishing-Medium	SQ (1/2 I.C.)				(Heat-Resistant Alloys)
	Medium-Roughing	SQ (3/4 I.C.)				(Heat-Resistant Alloys)
	Medium-Roughing	SQ (5/8 I.C.)				(Heat-Resistant Alloys)
MEDIUM-ROUGHING INSERTS	Finishing-Medium	SX (1/2 I.C.)				(Heat-Resistant Alloys)
	Medium-Roughing	SX (3/4 I.C.)				(Heat-Resistant Alloys)
	Medium-Roughing	SX (5/8 I.C.)				(Heat-Resistant Alloys)

CHIPBREAKER SELECTION (NEGATIVE INSERTS)

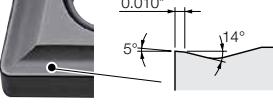
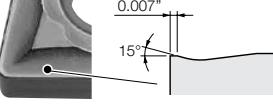
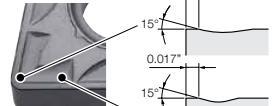
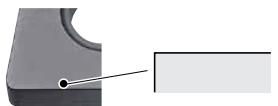
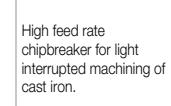
Cast Iron (K Series)

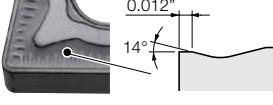
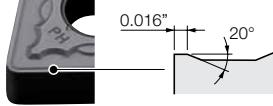
Sharp Cutting	KQ		 0.007" height, 5°, 18° angle	Sharp cutting chipbreaker. Edge geometry is great when requiring sharpness such as machining thin-walled workpieces.
Medium	KG		 0.011" height, 3°, 14° angle	Excellent balance of sharpness and strength. Excellent stability in continuous machining.
Medium-Roughing	KH		 0.016" height, 15° angle	Good for heavily interrupted machining. Strong edge chipbreaker. Improved locating/seating in the toolholder pocket, with high reliability.

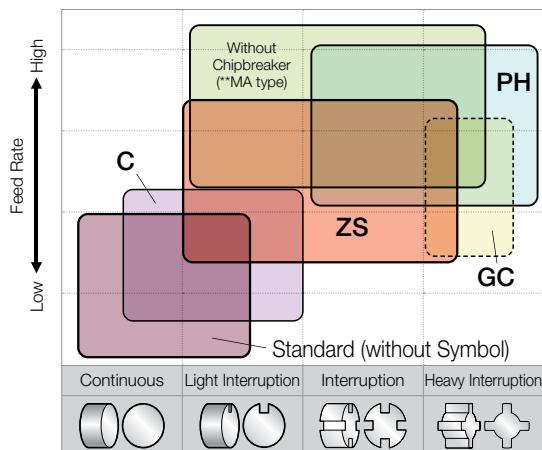
Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



Cast Iron

Without Chipbreaker	Standard		 0.010" height, 5°, 14° angle	Standard chipbreaker for continuous to light interrupted machining of cast iron. (Low cutting force)
With Chipbreaker	C		 0.007" height, 15° angle	High feed rate chipbreaker for continuous to light interrupted machining of cast iron.
With Chipbreaker	ZS		 0.017" height, 15° angle	Standard chipbreaker for light interrupted to interrupted machining of cast iron. (High stability)
With Chipbreaker				High feed rate chipbreaker for light interrupted machining of cast iron.

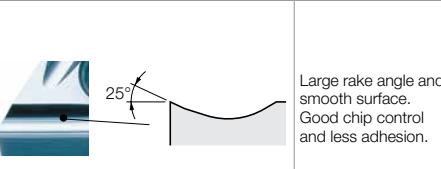
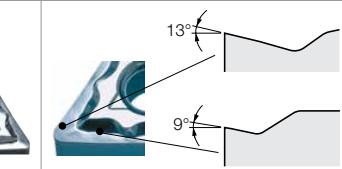
Without Chipbreaker (MA type)	GC		 0.012" height, 14° angle	Chipbreaker for heavy interrupted machining of cast iron. (Tough edge chipbreaker)
With Chipbreaker	PH		 0.016" height, 20° angle	Chipbreaker for roughing of cast iron and steel. Suitable for heavy interrupted machining and for workpieces with scale due to strong cutting edge.



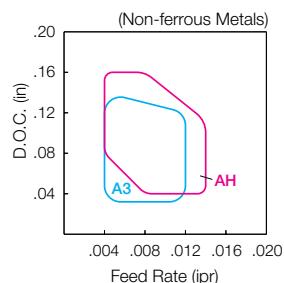
A INSERT GRADES	B TURNING INSERTS	C CBN/PCD TURNING HOLDERS	D TURNING SMALL HOLDERS	E SMALL TOOLS	F BORING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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CHIPBREAKER SELECTION (NEGATIVE INSERTS)

Non-ferrous Metals

B TURNING INSERTS	Finishing-Medium	A3		Large rake angle and smooth surface. Good chip control and less adhesion.	Medium-Roughing	AH		Polished chipbreaker. Smooth chip control and less adhesion. G Class: Sharp Edge Prep. M Class: Honed Edge Prep.
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Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



A3 Chipbreaker	
	D.O.C.= 0.08" $f= 0.008 \text{ ipr}$
	D.O.C.=0.08" $f= 0.012 \text{ ipr}$

AH Chipbreaker	
	D.O.C.= 0.08" $f= 0.008 \text{ ipr}$
	D.O.C.= 0.08" $f= 0.012 \text{ ipr}$

CHIPBREAKER SELECTION (NEGATIVE INSERTS)

Steel

2 Ground Chipbreaker

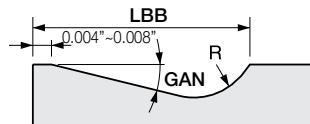
Sharp Cutting	S			Sharp edge and less cutting force. Good chip control and smooth chip evacuation.	
Medium	B			Suitable for general purpose machining at feed rate from 0.006 to 0.010 ipr.	

A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERT GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

Effectiveness of Ground Chipbreaker

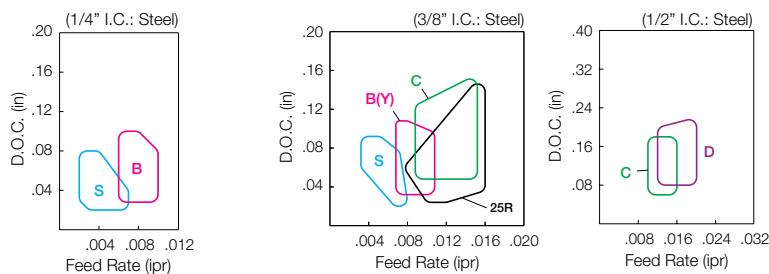
- (1) Lower cutting force and sharper cutting edge
- (2) Improved adhesion resistance
- (3) Improved dimensional accuracy and surface finish
- (4) Controlled chip flow

Specification of B, C, D and Parallel Ground Chipbreaker



Insert Type	I.C. Size	Chipbreaker Name	LBB (in)	GAN	R (in)
CNGG	3/8, 1/2	Without Indication (Similar to C)	0.087	14°	0.040
WNGG	3/8	Without Indication (Similar to C)	0.087	14°	0.040
TNGG	1/4, 3/8	B	0.060	14°	0.020
	3/8, 1/2	C	0.087	14°	0.040
DNGG	3/8, 1/2	Without Indication (Similar to C)	0.100	14°	0.080
VNGG	3/8	Without Indication (Similar to B)	0.060	14°	0.020
SNGG	3/8, 1/2	B	0.060	14°	0.020
	1/2	C	0.087	14°	0.040

Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



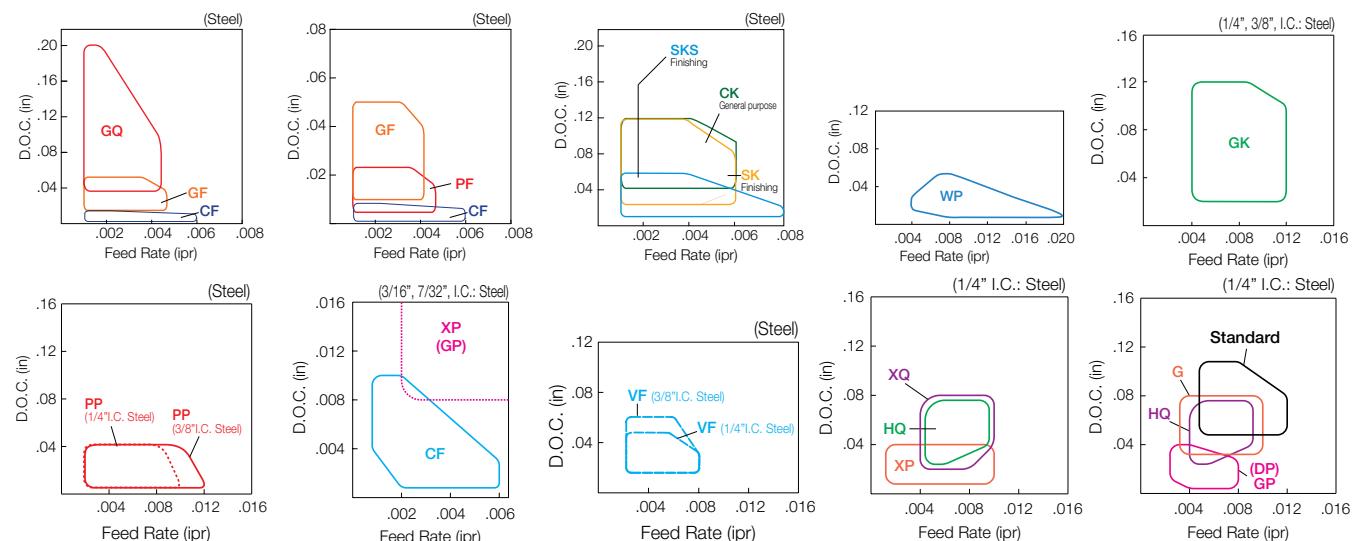
CHIPBREAKER SELECTION (POSITIVE INSERTS)

Steel

1 Molded Chipbreaker

	CF	Minute D.O.C.	Available for minute D.O.C. (0.0008" - 0.008") finishing.
Finishing	PF		Finishing chipbreaker for boring with D.O.C. of (0.006"~0.024")
Finishing	GF		Dot located close to ridge line of cutting edge on corner. Breaks chips into small pieces at low D.O.C.
Finishing-Medium	GQ		Enables cutting over a wide range of conditions by using the optimum chipbreaker width according to the cutting depth.
Finishing	SKS		Finishing chipbreaker with a D.O.C. of 0.2mm-1.5mm. Stable chip control with rake face, bottom face, and chipbreaker face design.
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 cutting on automatic lathe.
Finishing	WP		Dual-dot structure with one dot offering stabilized chip control at low feed rates, while a second dot controls chips at higher feed rates.
Finishing-Medium	GK	0.004"	Good chip evacuation at wide range by breaker dot and wide chip pocket.
Finishing	PP	0.002"	3-step Smart Dot structure is applicable to a wide range of feed rates in steel finishing. Smooth taper cutting edge reduces cutting forces.
Finishing	DP	14°	Consistent chip breaking performance for finishing.
Finishing	GP	20°	Good chip control at finishing. Applicable to sticky material like low carbon steel, pipe material.
Finishing	VF	13°	Good chip control for varied D.O.C. such as copying and undercutting.
Finishing-Medium	HQ	0.008"	General purpose chipbreaker for medium machining.
Medium	G	0.006"	Chipbreaker for short chips at medium machining.
Medium	Standard	0.008"	Strong edge chipbreaker for medium machining range.

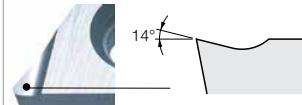
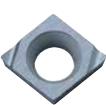
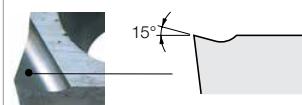
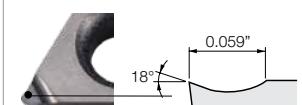
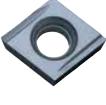
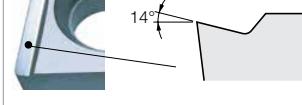
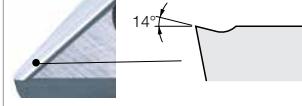
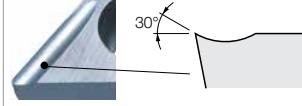
● Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)

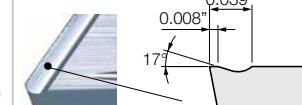
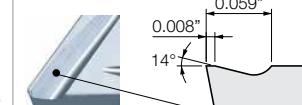
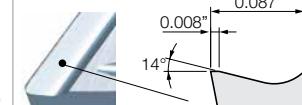
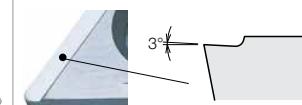


CHIPBREAKER SELECTION (POSITIVE INSERTS)

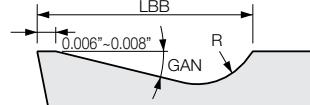
Steel

2 Ground Chipbreaker

	Finishing (Without Indication)			Good chip control during finishing to light machining with low cutting forces.
	Finishing F			Good chip control during finishing to light machining with low cutting forces.
	Finishing P			Chipbreaker smoothly breaks chips and directs them towards the outside of the workpiece when boring. Sharp cutting performance and good surface finish.
	Finishing-Medium Y			Sharp cutting performance and good surface finish.
Low Feed	J			Slant chipbreaker width provides chip control at various D.O.C..
Low Feed	U			Good chip control at low feed rates and varied D.O.C. with low cutting force. Suitable for automatic lathes.

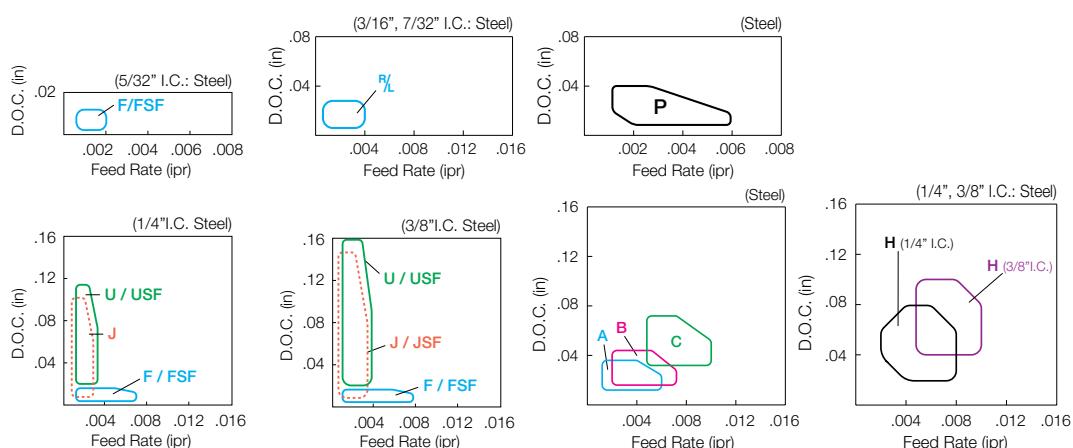
A	Finishing			Large rake angle and low cutting force. Narrow chipbreaker width and consistent chip control.
B	Finishing-Medium			General purpose chipbreaker for medium machining. Good balance between chip control and sharp cutting.
C	Medium			Applicable to high load machining. Good chip flow and less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

● Specification of A, B, C and parallel ground chipbreaker



Insert Type	Size	Chipbreaker Name	LBB (in)	GAN	R (in)
TPGR	1/4	A	0.040	17°	0.020
	1/4, 3/8	B	0.060	14°	0.020
	3/8	C	0.087	14°	0.040
SPGR	3/8	Without Indication (Similar to B)	0.060	14°	0.020
	1/2	Without Indication (Similar to C)	0.087	14°	0.040

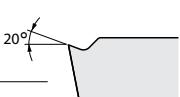
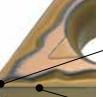
● Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



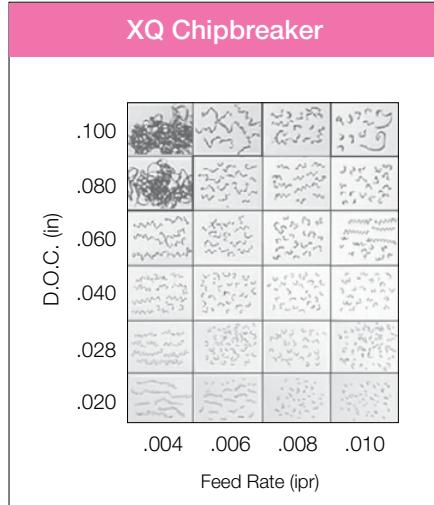
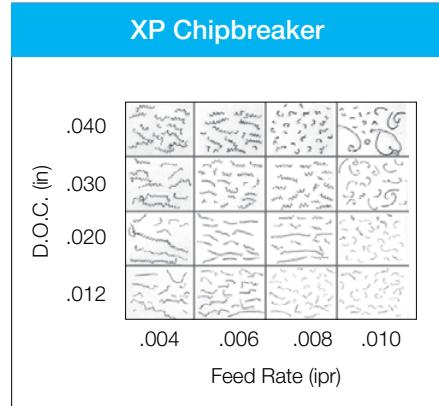
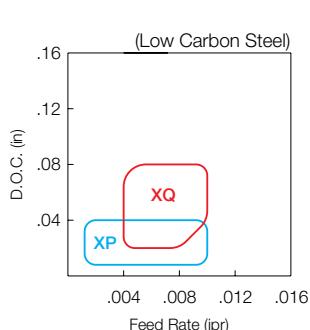
INSERT GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
A	B	C	D	E	F	G	H	J	K	M	N	P	R	T

CHIPBREAKER SELECTION (POSITIVE INSERTS)

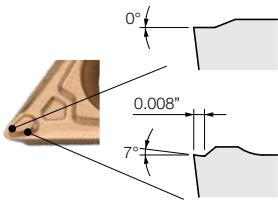
Low Carbon Steel (Pipe / Rolled Plate / Rolled Steel)

B TURNING INSERTS	Finishing	XP				Wide chip control range and sharp cutting performance. Suitable for low carbon steel and sticky material.	Finishing-Medium	XQ				Wide chip control range and sharp cutting performance. Suitable for low carbon steel and sticky material.
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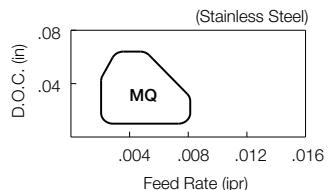
Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



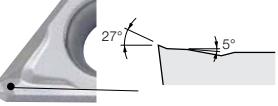
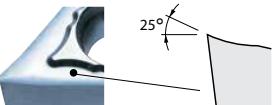
Stainless Steel

Finishing	MQ			Good chip evacuation when boring. Small curled chips. Prevents chip entanglement with toolholder and stabilizes surface roughness.
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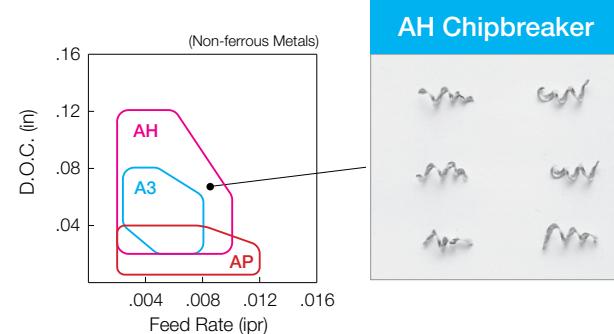
Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



Non-ferrous Metals

Finishing	AP			Stable chip evacuation and good surface finish when boring stainless steel with small curled chips evacuated towards the outside of the workpiece.
Finishing-Medium	AH			Positive chip groove and good chip control with low cutting forces. Polished surface reduces adhesion.

Applicable Chipbreaker Range (D.O.C. Refers to Radial Depth of Cut)



HOW TO READ INSERT PAGES

■ How to Read "Turning Inserts" Pages

- Refer below on how to read the "Indexable Turning Inserts" tables
- Section C contains similar content.

Classification of usage

- ✖ Interruption / 1st Choice
 - ✖ Interruption / 2nd Choice
 - Light Interruption / 1st Choice
 - Light Interruption / 2nd Choice
 - Continuous / 1st Choice
 - Continuous / 2nd Choice
- (For hardness under 45HRC)

Recommended grades for each application are shown here.

Insert Corner-R (RE)

Insert Shape

Insert Part Number ANSI / ISO

Application

Insert Appearance Image
Ref. Page B3 for Insert Color.

Applicable Chipbreaker Range No.

Purchase Unit Amounts

Available Stock Status

Applicable Toolholder and Cross Reference Page

Applicable Chipbreaker Map No.

Inserts' ISO Classification of Usage
(Workpiece materials are written on the right side)

Insert Dimensions

Insert Grades
(Red Fonts Are New Grades)

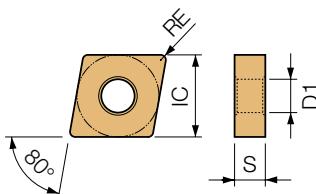
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How to read this page B15

80° Diamond

Negative Insert with Hole

B	TURNING INSERTS
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



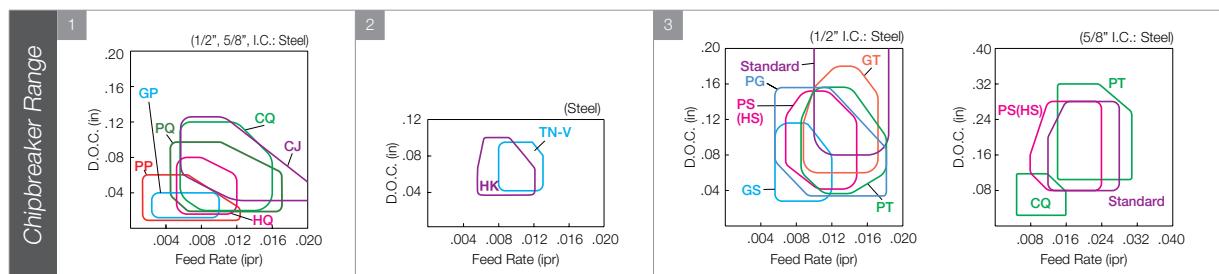
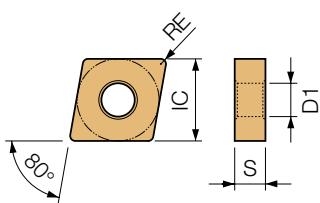
ANSI Part Number ISO Part Number

Finishing	CNMG 431WF	120404WF	1/64	P				M				K				N				S				H				Cermets				CVD Coated Carbide				MEGACOAT / MEGACOAT NANO PVD Coated Carbide				PVD Coated Carbide				DLC				Carbide				Toolholder Page				Chipbreaker Range																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
RE	TNG610	TNG620	TNG60	CCX	PV710	PV720	PV730	PV7005	PV700	PV/D Cermets	CA510	CA515	CA025P	CA525	CA530	CA5605	CA5615	CA5625	CA5635	CA6515	CA310	CA315	CA320	CA4505	CA4515	PR1705	PR1725	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR330	PR1005	PR1025	PR1125	PDL010	PDL025	KW10	SW05			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	8010	8011	8012	8013	8014	8015	8016	8017	8018	8019	8020	8021	8022	8023	8024	8025	8026	8027	8028	8029	8030	8031	8032	8033	8034	8035	8036	8037	8038	8039	8040	8041	8042	8043	8044	8045	8046	8047	8048	8049	8050	8051	8052	8053	8054	8055	8056	8057	8058	8059	8060	8061	8062	8063	8064	8065	8066	8067	8068	8069	8070	8071	8072	8073	8074	8075	8076	8077	8078	8079	8080	8081	8082	8083	8084	8085	8086	8087	8088	8089	8090	8091	8092	8093	8094	8095	8096	8097	8098	8099	80100	80101	80102	80103	80104	80105	80106	80107	80108	80109	80110	80111	80112	80113	80114	80115	80116	80117	80118	80119	80120	80121	80122	80123	80124	80125	80126	80127	80128	80129	80130	80131	80132	80133	80134	80135	80136	80137	80138	80139	80140	80141	80142	80143	80144	80145	80146	80147	80148	80149	80150	80151	80152	80153	80154	80155	80156	80157	80158	80159	80160	80161	80162	80163	80164	80165	80166	80167	80168	80169	80170	80171	80172	80173	80174	80175	80176	80177	80178	80179	80180	80181	80182	80183	80184	80185	80186	80187	80188	80189	80190	80191	80192	80193	80194	80195	80196	80197	80198	80199	80200	80201	80202	80203	80204	80205	80206	80207	80208	80209	80210	80211	80212	80213	80214	80215	80216	80217	80218	80219	80220	80221	80222	80223	80224	80225	80226	80227	80228	80229	80230	80231	80232	80233	80234	80235	80236	80237	80238	80239	80240	80241	80242	80243	80244	80245	80246	80247	80248	80249	80250	80251	80252	80253	80254	80255	80256	80257	80258	80259	80260	80261	80262	80263	80264	80265	80266	80267	80268	80269	80270	80271	80272	80273	80274	80275	80276	80277	80278	80279	80280	80281	80282	80283	80284	80285	80286	80287	80288	80289	80290	80291	8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How to read this page B15

80° Diamond

Negative Insert with Hole



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

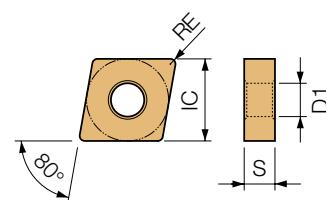
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Inserts sold in 10 piece boxes.

How to read this page B15

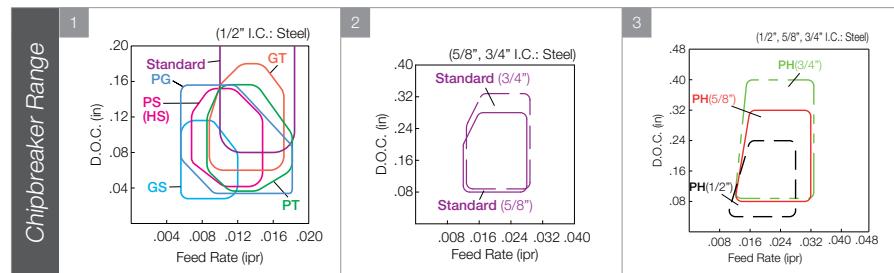
80° Diamond

Negative Insert with Hole



ANSI ISO
Part Number Part Number

		RE	TNG10	TNG20	TNG80	CCX	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
	Medium-Roughing															D8-D9 F87 F91 F92
			CNMG 432PT	120408PT	1/32											
			433PT	120412PT	3/64											
			CNMG 542PT	160608PT	1/32											
			543PT	160612PT	3/64											
			544PT	160616PT	1/16											
			CNMG 432GT	120408GT	1/32											
			433GT	120412GT	3/64											
			CNMG 643GT	190612GT	3/64											
	High Feed Rate															
	Medium-Roughing															
			CNMG 431	120404	1/64											
			432	120408	1/32											
			433	120412	3/64											
			434	120416	1/16											
			CNMG 542	160608	1/32											
			543	160612	3/64											
			544	160616	1/16											
			CNMG 642	190608	1/32											
			643	190612	3/64											
			644	190616	1/16											
	Roughing															
			CNMG 432PH	120408PH	1/32											
			433PH	120412PH	3/64											
			434PH	120416PH	1/16											
			CNMG 542PH	160608PH	1/32											
			543PH	160612PH	3/64											
			544PH	160616PH	1/16											
			CNMG 642PH	190608PH	1/32											
			643PH	190612PH	3/64											
			644PH	190616PH	1/16											
			646PH	190624PH	3/32											

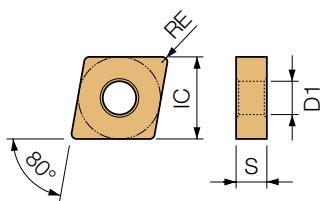


● : Standard Item △ : Phaseout Item (will be removed from next catalog)
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How to read this page B15

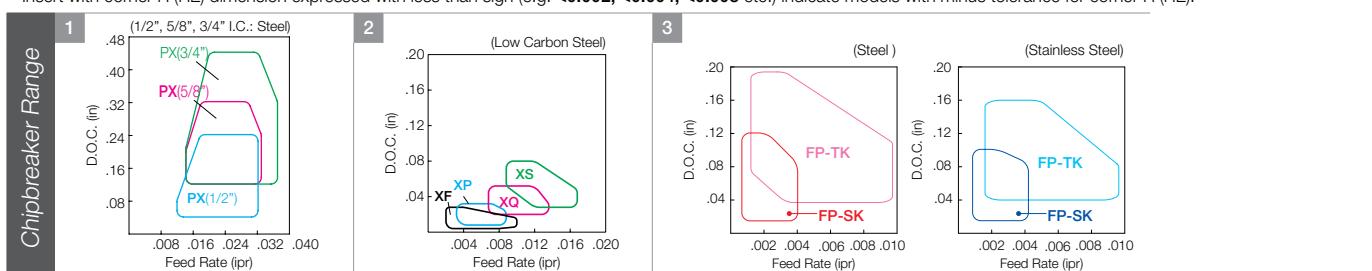
80° Diamond

Negative Insert with Hole



		ANSI Part Number	ISO Part Number
Single Sided / Roughing	A square-shaped carbide insert with a central hole and four cutting edges.	CNMM 432PX	120408PX
		433PX	120412PX
		434PX	120416PX
		CNMM 542PX	160608PX
		543PX	160612PX
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the one above but with a different profile.	544PX	160616PX
		CNMM 642PX	190608PX
		643PX	190612PX
		644PX	190616PX
		646PX	190624PX
High Feed Rate	A square-shaped carbide insert with a central hole and four cutting edges, featuring a larger chip clearance angle.		
		CNMG 431XF	120404XF
		Low Carbon Steel Small D.O.C.	432XF
			120408XF
Finishing	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNMG 431XP	120404XP
		Low Carbon Steel	432XP
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.		120408XP
		Low Carbon Steel	432XQ
Medium	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNMG 431XQ	120404XQ
		Low Carbon Steel	432XQ
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.		120408XQ
		Low Carbon Steel	432XS
Roughing	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNMG 432XS	120408XS
		Low Carbon Steel	
	A square-shaped carbide insert with a central hole and four cutting edges, featuring a larger chip clearance angle.		120402MFP-SK
		Sharp Edge / Polished	431MFP-SK
Finishing/Medium	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNGG 4305MFP-SK	120404MFP-SK
		Sharp Edge / Polished	431FP-TK
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.		120404FP-TK
		Sharp Edge / Polished	432FP-TK
Medium-Roughing	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNGG 431FP-TK	120408FP-TK
		Sharp Edge / Polished	432TK
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.		120404TK
		Sharp Edge / Stainless Steel / HRSA	432TK
Medium-Roughing	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNGG 431TK	120408TK
		Sharp Edge / Stainless Steel / HRSA	
	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.		120404TK
		Sharp Edge / Stainless Steel / HRSA	432TK
Medium-Roughing	A square-shaped carbide insert with a central hole and four cutting edges, similar to the finishing tool above but with a different profile.	CNMG 431TK	120408TK
		Sharp Edge / Stainless Steel / HRSA	

- Insert with corner B (RF) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner B (RF)



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology.

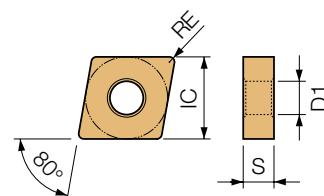
Inserts sold in 10 piece boxes.

How to read this page B15

80° Diamond

Negative Insert with Hole

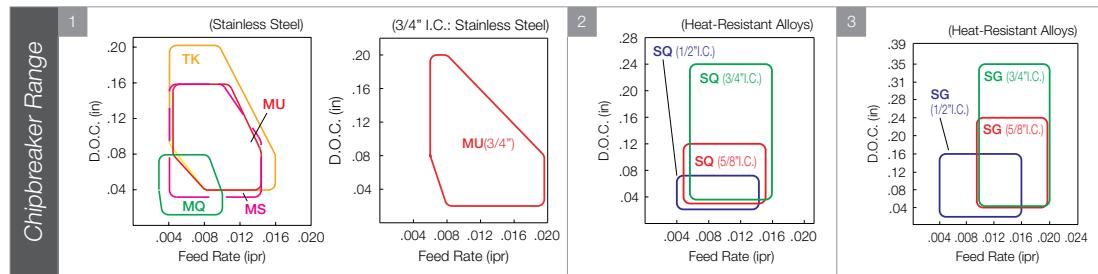
(in)				(in)			
Part Number	IC	S	D1	Part Number	IC	S	D1
CN_33_	3/8	3/16	0.150	CN_54_	5/8	1/4	1/4
CN_43_	1/2	3/16	0.203	CN_64_	3/4	1/4	5/16



Right-Hand
Shown
Where Applicable

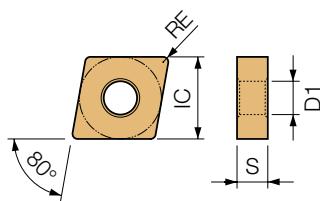
ANSI ISO
Part Number Part Number

For Heat-Resistant Alloys See **B8**



80° Diamond

Negative Insert with Hole

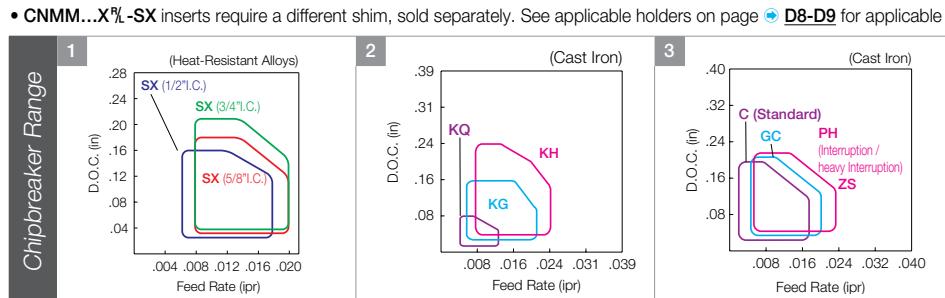


		ANSI Part Number	ISO Part Number
Roughing (Single Sided)		CNMM 43XR-SX 43XL-SX CNMM 54XR-SX 54XL-SX CNMM 64XR-SX 64XL-SX	1204XR-SX 1204XL-SX 1606XR-SX 1606XL-SX 1906XR-SX 1906XL-SX
Heat-Resistant Alloy			
Sharp Edge		CNMG 431KQ 432KQ 433KQ	120404KQ 120408KQ 120412KQ
Cast Iron			
Medium		CNMG 431KG 432KG 433KG	120404KG 120408KG 120412KG
Cast Iron			
Medium-Roughing		CNMG 432KH 433KH 434KH	120408KH 120412KH 120416KH
Cast Iron			
Roughing		CNMG 431C 432C 433C 434C CNMG 543C	120404C 120408C 120412C 120416C 160612C
Cast Iron			
Roughing		CNMG 432ZS 433ZS	120408ZS 120412ZS
Cast Iron			
Roughing		CNMG 432GC 433GC	120408GC 120412GC
Cast Iron			
Cast Iron		CNGA 431 432	120404 120408
		CNMA 431 432 433 434	120404 120408 120412 120416
		Without Chipbreaker	
		CNMA 543	160612

Part Number	IC	S	D1	(in)
CN_33_	3/8	3/16	0.150	
CN_43_	1/2	3/16	0.203	
CNMM_43X_	1/2	0.174	0.203	

Part Number	IC	S	D1
CN_54_	5/8	1/4	1/4
CNMM_54X_	5/8	0.235	1/4
CN_64_	3/4	1/4	5/16
CNMM_64X_	3/4	0.233	5/16

How to read this page ➔ B15



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

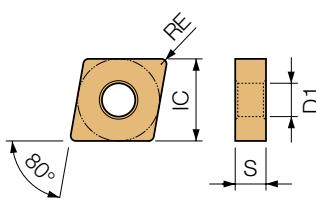
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

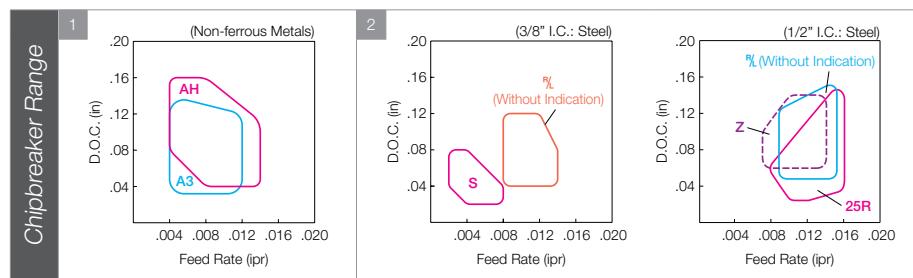
How to read this page B15

80° Diamond

Negative Insert with Hole



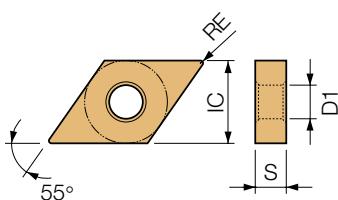
Right-Hand Shown where Applicable		ANSI Part Number	ISO Part Number	RE	TN610 TN620 CCX PV710 PV720 PV730 PV90 CA510 CA515 CA025P CA525 CA530 CA5505 CA5515 CA5525 CA5535 CA6515 CA6525 CA310 CA315 CA320 CA4505 CA4515 PR1705 PR1725 PR1425 PR1225 PR005S PR015S PR1305 PR1310 PR1325 PR1535 PR930 PR1005 PR1025 PR1125 PDL010 PDL025 KW10 SW05	Toolholders
Finishing-Medium	Sharp Edge / Non-ferrous Metals	CNGG 431R-A3	120404R-A3	1/64		
		431L-A3	120404L-A3	1/64		
		432R-A3	120408R-A3	1/32		
		432L-A3	120408L-A3	1/32		
Medium-Roughing	Sharp Edge / Non-ferrous Metals	CNGG 431AH	120404AH	1/64		
		432AH	120408AH	1/32		
		CNMG 431AH	120404AH	1/64		
		432AH	120408AH	1/32		
Medium-Roughing	Non-ferrous Metals	CNGG 3305R-S	090402R-S	0.008	● ● ● ●	
		3305L-S	090402L-S	0.008	● ● ● ●	
		331R-S	090404R-S	1/64	● ● ● ●	
		331L-S	090404L-S	1/64	● ● ● ●	
Finishing	Surface Roughness Oriented	CNGG 3305R-S	090408R-S	1/32	● ●	
		332R-S	090408L-S	1/32	● ●	
		CNGG 331L	090404L	1/64		
		332L	090408L	1/32		
Medium		CNGG 431R	120404R	1/64	● ● ● ●	
		431L	120404L	1/64	● ● ● ●	
		432R	120408R	1/32	● ● ● ●	
		432L	120408L	1/32	● ● △ ● ●	
Medium-Roughing	Low Cutting Force	CNGG 4302FR	120401FR	0.004	● ●	
		4302FL	120401FL	0.004	● ●	
		CNGG 431R-25R	120404R-25R	1/64	● ● ● ●	
		431L-25R	120404L-25R	1/64	● ● ● ●	
Medium-Roughing	Low Cutting Force	432R-25R	120408R-25R	1/32	● ● △ ● ●	
		432L-25R	120408L-25R	1/32	● ● △ ● ●	
		CNGG 431Z	120404Z	1/64	● ●	



How to read this page B15

55° Diamond

Negative Insert with Hole



ANSI ISO
Part Number Part Number

	Part Number	Part Number
Finishing	DNMX 431WF	150404WF
	432WF	150408WF
	433WF	150412WF
	DNMX 441WF	150604WF
	442WF	150608WF
Wiper Edge	443WF	150612WF

Finishing		DNMG 4305PP	150402PP
		431PP	150404PP
		432PP	150408PP
		433PP	150412PP
		DNMG 4405PP	150602PP
		441PP	150604PP
		442PP	150608PP
		443PP	150612PP

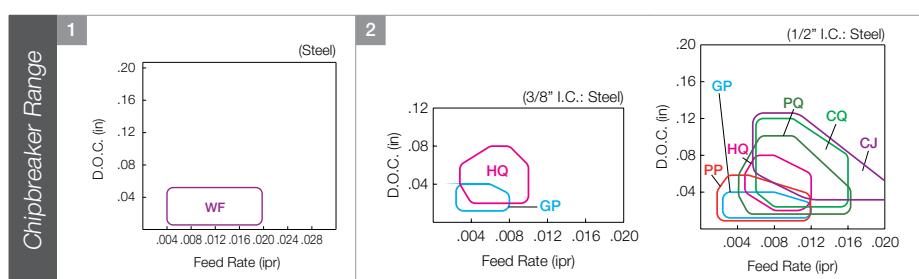
Finishing	DNMG 331GP	110404GP
	332GP	110408GP
	DNMG 4305GP	150402GP
	431GP	150404GP
	432GP	150408GP
	DNMG 4405GP	150602GP

	441GP	150604GP
	442GP	150608GP
shing-Medium	DNMG 431PQ	150404PQ
	432PQ	150408PQ
	433PQ	150412PQ
	DNMG 441PQ	150604PQ

	Finis	442PQ 150608PQ 443PQ 150612PQ	
	1	2	

Part Number	IC	S	D1	(in)
DN_33_	3/8	3/16	0.150	
DN_43_	1/2	3/16	0.203	

Part Number	IC	S	D1
DN_44_	1/2	1/4	0.203



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

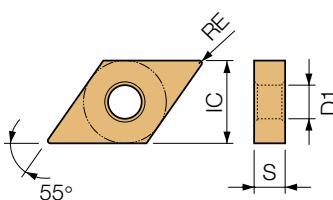
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

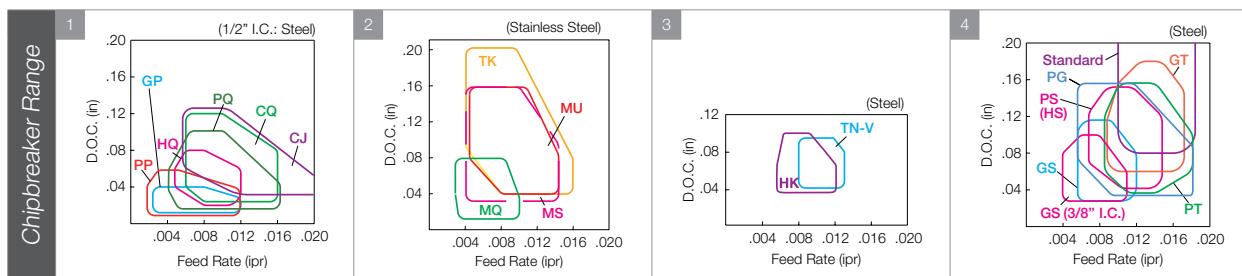
55° Diamond

Negative Insert with Hole



Part Number	IC	S	D1	(in)
DN_33_	3/8	3/16	0.150	
DN_43_	1/2	3/16	0.203	

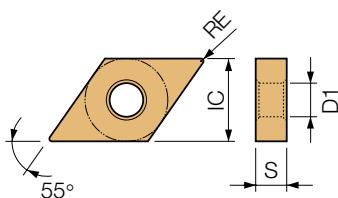
Part Number	IC	S	D1
DN_44_	1/2	1/4	0.203



How to read this page B15

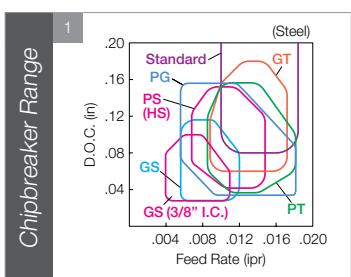
55° Diamond

Negative Insert with Hole



Part Number	IC	S	D1	(in)
DN_33_	3/8	3/16	0.150	
DN_43_	1/2	3/16	0.203	

<u>Part Number</u>	<u>IC</u>	<u>S</u>	<u>D1</u>
DN_44_	1/2	1/4	0.203



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

55° Diamond

Negative Insert with Hole

B
TURNING
INSERTS

NEGATIVE

C

D

R

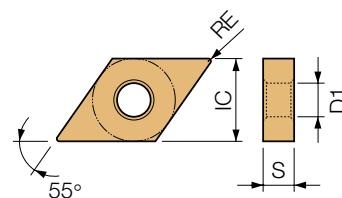
S

T

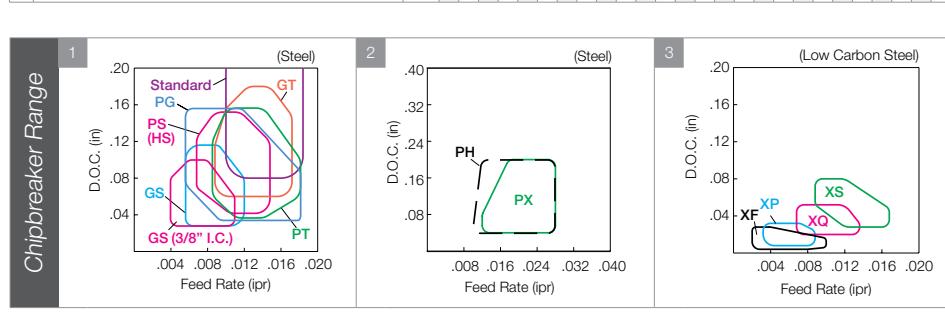
V

W

CERAMIC

ANSI ISO
Part Number Part Number

				Corner Radius (in)	Cermet		CVD Cermet		MEGA COAT Cermet		CVD Coated Carbide		MEGACOAT / MEGACOAT NANO PVD Coated Carbide		PVD Coated Carbide		DLC		Carbide		Toolholder Page	Chipbreaker Range																		
					RE	TNG610	TNG20	TNG60	CCX	PV710	PV720	PV730	PV7005	PV90	CA510	CA515	CA025P	CA525	CA530	CA5505	CA5515	CA5525	CA5535	CA6515	CA310	CA315	CA320	PR1705	PR1725	PR1425	PR1225	PR005S	PR015S	PR1305	PR1310	PR1325	PR1535	PR330	PR1005	PR1025
	Roughing		DNMG 431	1/64	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	1				
CERAMIC	Roughing		DNMG 432	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	1				
	Roughing		DNMG 433	3/64																											D12	D13	F88	F94	F95	1				
	Roughing		DNMG 441	1/64																													D12	D13	F88	F94	F95	1		
	Roughing		DNMG 442	1/32																													D12	D13	F88	F94	F95	1		
	Roughing		DNMG 443	3/64																													D12	D13	F88	F94	F95	1		
	Roughing		DNMG 443PH	1/16																													D12	D13	F88	F94	F95	1		
	Roughing		DNMG 442PH	1/32																												D12	D13	F88	F94	F95	1			
	Roughing		DNMG 443PH	3/64																												D12	D13	F88	F94	F95	1			
	Roughing		DNMG 444PH	1/16																												D12	D13	F88	F94	F95	1			
	Roughing		DNMM 432PX	1/32																												D12	D13	F88	F94	F95	2			
	Roughing		DNMM 433PX	3/64																												D12	D13	F88	F94	F95	2			
	Roughing		DNMM 434PX	1/16																												D12	D13	F88	F94	F95	2			
	Roughing	Single Sided High Feed Rate	DNMM 442PX	1/32																												D12	D13	F88	F94	F95	2			
	Roughing	Single Sided High Feed Rate	DNMM 443PX	3/64																												D12	D13	F88	F94	F95	2			
	Roughing	Single Sided High Feed Rate	DNMM 444PX	1/16																												D12	D13	F88	F94	F95	2			
	Finishing		DNMG 431XF	1/64	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Finishing	Small D.O.C. Low Carbon Steel	DNMG 432XF	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Finishing		DNMG 431XP	1/64	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Finishing		DNMG 432XP	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Finishing	Low Carbon Steel	DNMG 441XP	1/64	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Finishing	Low Carbon Steel	DNMG 442XP	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3						
	Medium		DNMG 431XQ	1/64	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3							
	Medium		432XQ	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3							
	Medium	Low Carbon Steel	DNMG 442XQ	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3							
	Roughing	Low Carbon Steel	DNMG 432XS	1/32	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	D12	D13	F88	F94	F95	3							

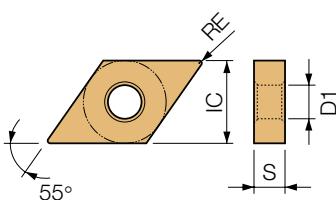


● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

How to read this page ➔ B15

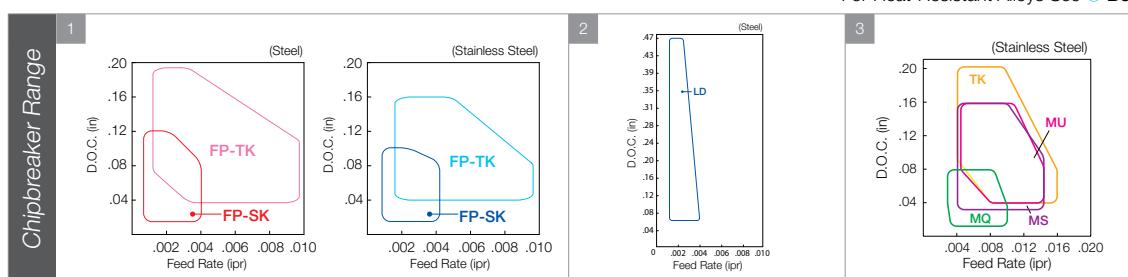
55° Diamond

Negative Insert with Hole



ANSI ISO
Part Number Part Number

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

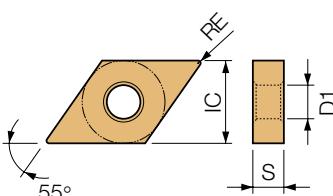
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page ➔ B15

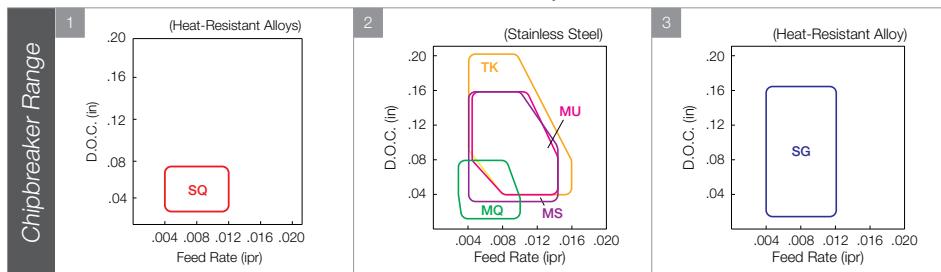
55° Diamond

Negative Insert with Hole



	ANSI Part Number	ISO Part Number	RE	TN610 TN620 TN60 CCX PV710 PV720 PV730 PV7005 PV90 CA510 CA515 CA025P CA525 CA530 CA5505 CA5515 CA5525 CA5535 CA6515 CA6625 CA310 CA315 CA320 CA4505 CA4515 PR1705 PR1725 PR1425 PR1225 PR015S PRI305 PR1310 PR1315 PR1320 PR1325 PR1535 PR980 PR1005 PR1025 PR1125 PDL010 PDL025 KW10 SW05	Toolbox Page	Chipbreak Range
Finishing-Medium	Heat-Resistant Alloy	DNMG 431SQ	150404SQ	1/64		D12 D13 F88 F94 F95
		432SQ	150408SQ	1/32		
		433SQ	150412SQ	3/64		
		DNMG 441SQ	150604SQ	1/64		
		442SQ	150608SQ	1/32		
		443SQ	150612SQ	3/64		
	Stainless Steel / HRSA	DNMG 431MS	150404MS	1/64	● ●	D12 D13 F88 F94 F95
		432MS	150408MS	1/32	● ●	
		433MS	150412MS	3/64	● ●	
		DNMG 441MS	150604MS	1/64	● ●	
		442MS	150608MS	1/32	● ●	
Medium-Roughing	Stainless Steel / HRSA	443MS	150612MS	3/64	● ●	
		DNMG 431MU	150404MU	1/64	● ●	D12 D13 F88
		432MU	150408MU	1/32	● ●	D12 D13 F88 F94 F95
		DNMG 441MU	150604MU	1/64	● ●	D12 D13 F88
		442MU	150608MU	1/32	● ●	D12 D13 F88
	Roughing	DNMG 432SG	150408SG	1/32	● ●	D12 D13 F88 F94 F95
		433SG	150412SG	3/64	● ●	
		DNMG 442SG	150608SG	1/32	● ●	
		443SG	150612SG	3/64	● ●	

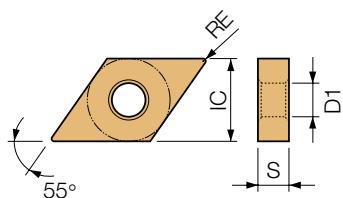
For Heat-Resistant Alloys See B8



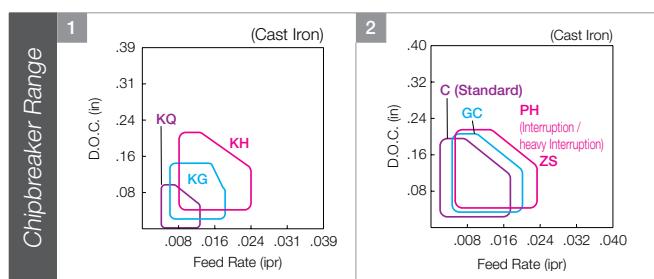
How to read this page B15

55° Diamond

Negative Insert with Hole

ANSI ISO
Part Number Part Number

Sharp Edge	Cast Iron	DNMG 431KQ	150404KQ	1/64	P	RE	Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Free-Cutting Steel
		432KQ	150408KQ	1/32	M	TIN610	TIN620	TIN60	CCX	PV710	PV720	PV730	PV7005	Carbon/Alloy Steel
Medium	Cast Iron	DNMG 441KQ	150604KQ	1/64	K	CA510	CA515	CA525	CA530	CA5505	CA5515	CA5525	CA5535	Stainless Steel
		442KQ	150608KQ	1/32	N	CA310	CA315	CA320	CA4505	CA4515	CA4525	CA4535	CA4545	Gray Cast Iron
Medium-Roughing	Cast Iron	DNMG 431KG	150404KG	1/64	S	PR1725	PR1735	PR1745	PR1755	PR1765	PR1775	PR1785	PR1795	Nodular Cast Iron
		432KG	150408KG	1/32	H	PR1225	PR1305	PR1325	PR1335	PR1345	PR1355	PR1365	PR1375	Non-ferrous Metals
Roughing	Cast Iron	DNMG 441KG	150604KG	1/64	P	PR005S	PR015S	PR025S	PR030S	PR040S	PR050S	PR060S	PR070S	HRSA
		442KG	150608KG	1/32	M	PR1005	PR1025	PR1125	PR1225	PR1325	PR1425	PR1525	PR1625	Titanium Alloy
Roughing	Cast Iron	DNMG 441KH	150612KG	3/64	K	PR1105	PR1205	PR1305	PR1405	PR1505	PR1605	PR1705	PR1805	Hard materials
		442KH	150608KH	1/32	N	PR1125	PR1225	PR1325	PR1425	PR1525	PR1625	PR1725	PR1825	
Roughing	Cast Iron	DNMG 432KH	150408KH	1/32	S	PR1135	PR1235	PR1335	PR1435	PR1535	PR1635	PR1735	PR1835	
		433KH	150412KH	3/64	H	PR1145	PR1245	PR1345	PR1445	PR1545	PR1645	PR1745	PR1845	
Roughing	Cast Iron	DNMG 442KH	150612KH	3/64	P	PR1155	PR1255	PR1355	PR1455	PR1555	PR1655	PR1755	PR1855	
		443KH	150612KH	3/64	M	PR1165	PR1265	PR1365	PR1465	PR1565	PR1665	PR1765	PR1865	
Roughing	Cast Iron	DNMG 431C	150404C	1/64	K	PR1175	PR1275	PR1375	PR1475	PR1575	PR1675	PR1775	PR1875	
		432C	150408C	1/32	N	PR1185	PR1285	PR1385	PR1485	PR1585	PR1685	PR1785	PR1885	
Roughing	Cast Iron	DNMG 433C	150412C	3/64	S	PR1195	PR1295	PR1395	PR1495	PR1595	PR1695	PR1795	PR1895	
		433C	150604C	1/64	H	PR1205	PR1305	PR1405	PR1505	PR1605	PR1705	PR1805	PR1905	
Roughing	Cast Iron	DNMG 441C	150608C	1/32	P	PR1215	PR1315	PR1415	PR1515	PR1615	PR1715	PR1815	PR1915	
		442C	150608C	1/32	M	PR1225	PR1325	PR1425	PR1525	PR1625	PR1725	PR1825	PR1925	
Roughing	Cast Iron	DNMG 441ZS	150408ZS	1/32	K	PR1235	PR1335	PR1435	PR1535	PR1635	PR1735	PR1835	PR1935	
		433ZS	150412ZS	3/64	N	PR1245	PR1345	PR1445	PR1545	PR1645	PR1745	PR1845	PR1945	
Roughing	Cast Iron	DNMG 442ZS	150608ZS	1/32	S	PR1255	PR1355	PR1455	PR1555	PR1655	PR1755	PR1855	PR1955	
		443ZS	150612ZS	3/64	H	PR1265	PR1365	PR1465	PR1565	PR1665	PR1765	PR1865	PR1965	
Roughing	Cast Iron	DNMG 432GC	150408GC	1/32	P	PR1275	PR1375	PR1475	PR1575	PR1675	PR1775	PR1875	PR1975	
		433GC	150412GC	3/64	M	PR1285	PR1385	PR1485	PR1585	PR1685	PR1785	PR1885	PR1985	
Roughing	Cast Iron	DNMG 442GC	150608GC	1/32	K	PR1295	PR1395	PR1495	PR1595	PR1695	PR1795	PR1895	PR1995	
		443GC	150612GC	3/64	N	PR1305	PR1405	PR1505	PR1605	PR1705	PR1805	PR1905	PR2005	

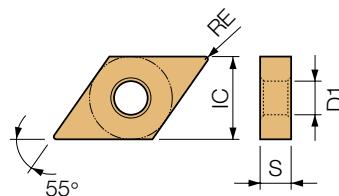


A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERTS GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

How to read this page B15

55° Diamond

Negative Insert with Hole

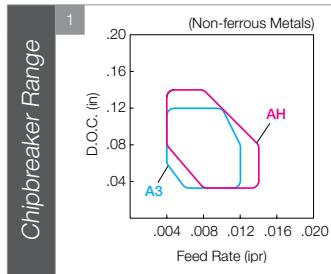
B
TURNING
INSERTS**N**
NEGATIVE**C****D****R****S****T****V****W****CERAMIC**

Part Number	IC	S	D1
DN_33_	3/8	3/16	0.150
DN_43_	1/2	3/16	0.203

Part Number	IC	S	D1
DN_44_	1/2	1/4	0.203

Right-Hand
Shown
where ApplicableANSI
Part NumberISO
Part Number

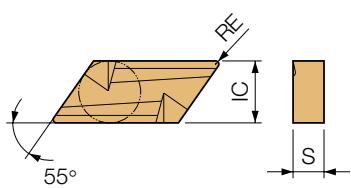
Material Type	Corner Radius (in)	Cermets	CVD Cermets	MEGA COAT Cermets	PVD Cermets	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
Cast Iron	DNMA 431	150404	1/64									
	432	150408	1/32	●	●			●	●	●	●	●
Without Chipbreaker	DNMA 441	150604	1/64									
	442	150608	1/32									
Sharp Edge Non-ferrous Metals	DNGG 431R-A3	150404R-A3	1/64									
	431L-A3	150404L-A3	1/64									
Sharp Edge Non-ferrous Metals	432R-A3	150408R-A3	1/32									
	432L-A3	150408L-A3	1/32									
Medium-Roughing	DNGG 431AH	150404AH	1/64									
	432AH	150408AH	1/32									
Sharp Edge Non-ferrous Metals	DNGG 441AH	150604AH	1/64									
	442AH	150608AH	1/32									
Medium-Roughing	DNMG 431AH	150404AH	1/64									
	432AH	150408AH	1/32									
Non-ferrous Metals	DNMG 441AH	150604AH	1/64									
	442AH	150608AH	1/32									
Finishing	DNGG 3305R-S	110402R-S	0.008	●				●				
	3305L-S	110402L-S	0.008	●								
Surface Roughness Oriented	331R-S	110404R-S	1/64	●				●				
	331L-S	110404L-S	1/64	●				●				
Medium	332R-S	110408R-S	1/32	●				●				
	332L-S	110408L-S	1/32	△				●				
	DNGG 331R	110404R	1/64	●	●	●	●	●	●	●	●	
	331L	110404L	1/64	●	●	●	●	●	●	●	●	
	332R	110408R	1/32	△	●	●	●	●	●	●	●	
	DNGG 431R	150404R	1/64	●	●	●	●	●	●	●	●	
	431L	150404L	1/64	●	●	●	●	●	●	●	●	
	432R	150408R	1/32	●	●	●	●	●	●	●	●	
	432L	150408L	1/32	●	●	●	●	●	●	●	●	



How to read this page ➔ B15

55° Parallelogram

Negative Insert without Hole

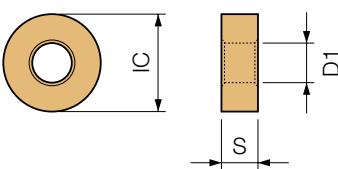


ANSI ISO
Part Number Part Number

Medium-Roughing	 KNMX 160405R-1 160405R-1 160405L-1 160405L-1 160410R 160410R-1 160410L 160410L-1
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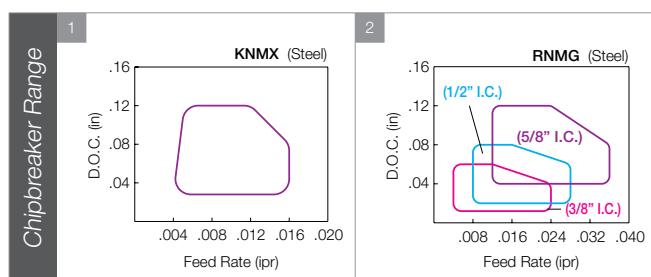
Round

Negative Insert with Hole



ANSI ISO
Part Number Part Number

	Part Number	
Medium-Roughing	RNMG 32	090300
	RNMG 43	120400
	RNMG 54	150600



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

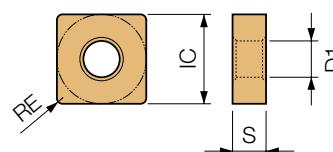
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

90° Square

Negative Insert with Hole



Part Number	IC	S	D1
SN_32_	3/8	1/8	0.150
SN_43_	1/2	3/16	0.203

Part Number	IC	S	D1
SN_54_	5/8	1/4	1/4
SN_64_	3/4	1/4	5/16

ANSI ISO

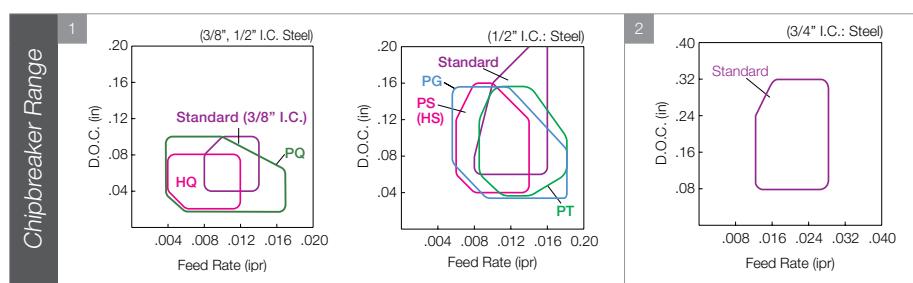
	Finishing-Medium	SNMG 431PQ	120404PQ	1/64	● ● ● ● ● ● ● ●	TN610	TN620	TN60	CCX	Cermet	MEGA COAT Cermet	PVD Cermet	PV90	PV710	PV720	PV730	PV7005	CVD Coated Carbide	CA510	CA515	CA025P	CA525	CA5505	CA5515	CA5525	CA5535	CA6515	CA6525	CA4505	CA4515	PR105S	PR110S	PR1125	PR11705	PR11725	PR11425	PR11225	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
		432PQ	120408PQ	1/32	● ● ● ● ● ● ● ●																																						
		433PQ	120412PQ	3/64																																							
		SNMG 431HQ	120404HQ	1/64	● ● ● ● ● ● ● ●																																						
		432HQ	120408HQ	1/32	● ● ● ● ● ● ● ●																																						
		433HQ	120412HQ	3/64	● ● ● ● ● ● ● ●																																						
		SNMG 432PG	120408PG	1/32	● ● ● ● ● ● ● ●																																						
		433PG	120412PG	3/64	● ● ● ● ● ● ● ●																																						
		434PG	120416PG	1/16	● ● ● ● ● ● ● ●																																						
		SNMG 432PS	120408PS	1/32																																							
		433PS	120412PS	3/64																																							
		434PS	120416PS	1/16																																							
		SNMG 432PT	120408PT	1/32																																							
		433PT	120412PT	3/64																																							
		SNMG 321	090304	1/64	● ● ● ● ● ● ● ●																																						
		322	090308	1/32	● ● ● ● ● ● ● ●																																						
		SNMG 431	120404	1/64	● ● ● ● ● ● ● ●																																						
		432	120408	1/32	● ● ● ● ● ● ● ●																																						
		433	120412	3/64	● ● ● ● ● ● ● ●																																						
		434	120416	1/16	● ● ● ● ● ● ● ●																																						
		435	120420	5/64	● ● ● ● ● ● ● ●																																						
		SNMG 643	190612	3/64																																							
		644	190616	1/16																																							

D14
D15
F97

1

D14
D15
F97

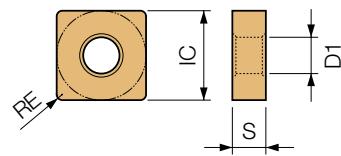
2



How to read this page B15

90° Square

Negative Insert with Hole

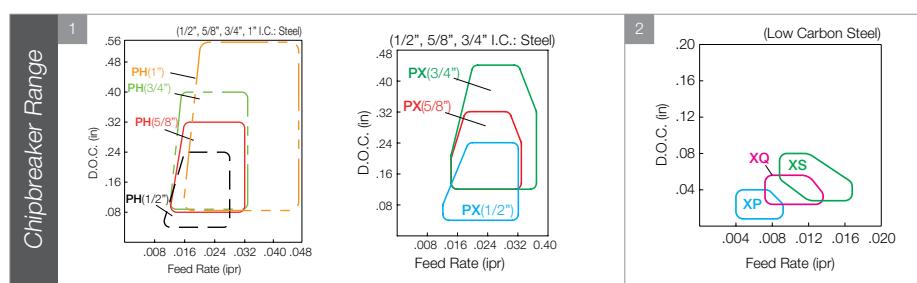


ANSI Part Number ISO Part Number

Roughing		SNMG 432PH	120408PH	1/32	TN610 TN820 TN60 CCX PV710 PV720 PV730 PV7005 PV80	RE Cermet CVD/Cermet MEGA COAT Cermet CVD PVD/Cermet	CA510 CA515 CA025P CA525 CA530 CA5505 CA5525 CA5535 CA6515 CA6525 CA310 CA315 CA320 CA4505 CA4515 PR1725 PR1425 PR1225 PR005S PR015S PR1305 PR1310 PR1325 PR1535 PR930 PR1005 PR1025 PR1125 PD1010 PD1025 KW10 SW05	Corner Radius (in) Cermet CVD/Cermet MEGA COAT Cermet CVD PVD/Cermet	(in) 3/8 1/8 0.150 1/2 3/16 0.203 5/8 1/4 1/4 3/4 1/4 5/16 1 3/8 0.359	Part Number SN_32_ SN_43_ SN_54_ SN_64_ SN_86_	IC 3/8 1/2 5/8 3/4 1 1/8 3/16 1/4 3/8 1/4 1/4 3/8 0.150 0.203 0.359	S D1 0.150 0.203 0.359
Roughing		SNMG 543PH	150612PH	3/64								
		544PH	150616PH	1/16								
		SNMG 643PH	190612PH	3/64								
		644PH	190616PH	1/16								
		646PH	190624PH	3/32								
		SNMG 866PH	250924PH	3/32								
Roughing		SNMM 432PX	120408PX	1/32								
		433PX	120412PX	3/64								
		434PX	120416PX	1/16								
Roughing		SNMM 543PX	150612PX	3/64								
		544PX	150616PX	1/16								
		SNMM 643PX	190612PX	3/64								
		644PX	190616PX	1/16								
		Single Sided High Feed Rate	646PX	3/32								
Finishing		SNMG 432XP	120408XP	1/32	● ● ● ● ●	● ● ●	● ● ●					
		Low Carbon Steel										
Medium		SNMG 432XQ	120408XQ	1/32	● ● △ ● ● ● ●	●	● ● ●	● ● ●				
		Low Carbon Steel										
Roughing		SNMG 432XS	120408XS	1/32	● ● ● ● ●	● ● ● ●	● ● ●	●				
		Low Carbon Steel										

Part Number	IC	S	D1	Part Number	IC	S	D1	Part Number	IC	S	D1	Part Number	IC	S	D1
SN_32_	3/8	1/8	0.150	SN_54_	5/8	1/4	1/4	SN_64_	3/4	1/4	5/16	SN_86_	1	3/8	0.359
SN_43_	1/2	3/16	0.203												

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T



● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

SNMG866PH sold in 5 piece boxes.

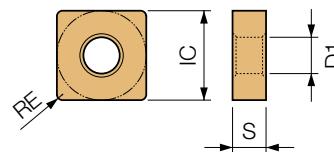
Inserts sold in 10 piece boxes.



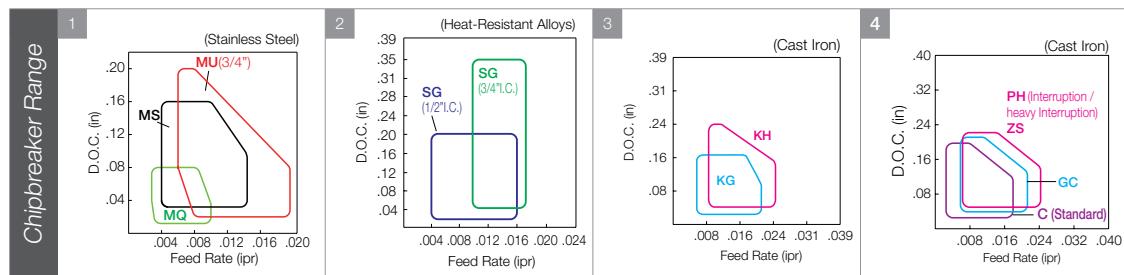
How to read this page B15

90° Square Negative Insert

B	TURNING INSERTS
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



		ANSI Part Number	ISO Part Number	RE	TNG610	TNG20	TNG60	CCX	PV710	PV720	PV730	PV7005	PV90	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	KW10	SW05	Toolholder Page	Chipbreaker Range
Finishing-Medium		SNMG 431MQ	120404MQ	1/64																						
	Stainless Steel / HRSA	432MQ	120408MQ	1/32																						
Medium-Roughing		SNMG 431MS	120404MS	1/64																						
	Stainless Steel / HRSA	432MS	120408MS	1/32																						
	433MS	120412MS	3/64																							
	434MS	120416MS	1/16																							
Medium-Roughing		SNMG 643MU	190612MU	3/64																						
	Stainless Steel / HRSA	644MU	190616MU	1/16																						
Roughing		SNMG 432SG	120408SG	1/32																						
	433SG	120412SG	3/64																							
	Heat-Resistant Alloy	SNMG 643SG	190612SG	3/64																						
	644SG	190616SG	1/16																							
Medium		SNMG 432KG	120408KG	1/32															● ● ●							
	Cast Iron	433KG	120412KG	3/64															● ● ●							
Medium-Roughing		SNMG 432KH	120408KH	1/32															● ● ●							
	Cast Iron	433KH	120412KH	3/64															● ● ●							
	434KH	120416KH	1/16																● ● ●							
Roughing		SNMG 432C	120408C	1/32															● ● ●	●						
	Cast Iron	433C	120412C	3/64															● ● ●	●						
Roughing		SNMG 432ZS	120408ZS	1/32															●	● ● ● ●						
	Cast Iron	433ZS	120412ZS	3/64															● ● ●	●						
Roughing		SNMG 432GC	120408GC	1/32															● ● ●	●						
	Cast Iron	433GC	120412GC	3/64															●	● ● ●	●					

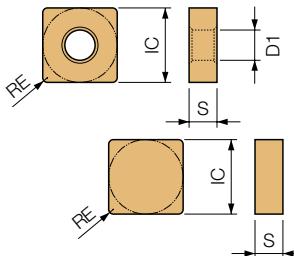


For Heat-Resistant Alloys See B8

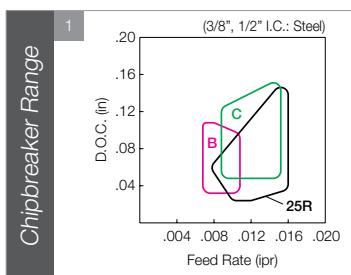
How to read this page B15

90° Square

Negative Insert with & without Hole



ANSI ISO
Right-Hand Shown where Applicable Part Number Part Number



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

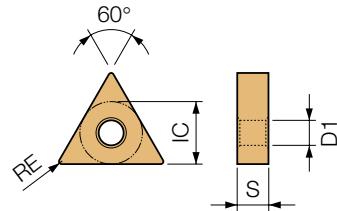
Inserts sold in 10 piece boxes.

How to read this page B15

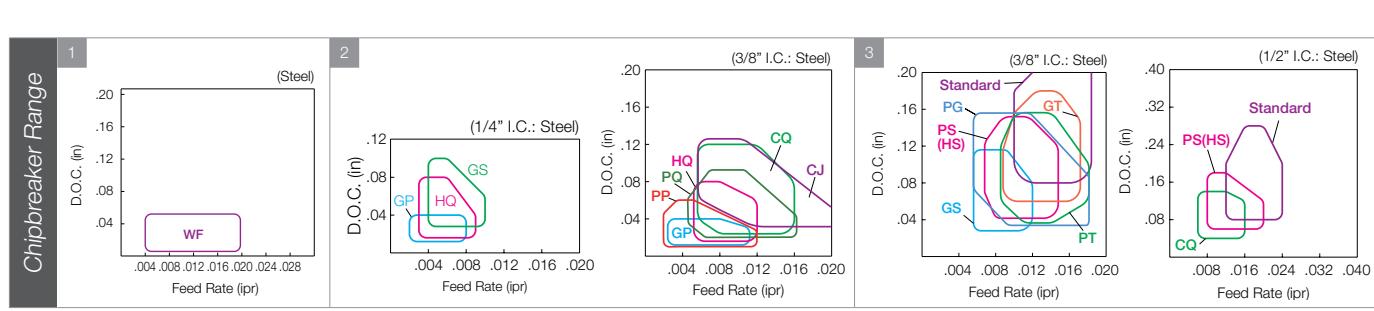
60° Triangle

Negative Insert with Hole

B	Turning Inserts
N	Negative
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



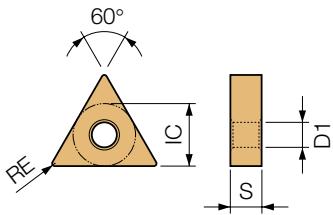
	ANSI Part Number	ISO Part Number	Corner Radius (in)	RE	TN610	TN820	CCX	PV710	PV720	PV730	PV705	PV80	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range		
Finishing	TNMX 331WF	160404WF	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16	D17	
	332WF	160408WF	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F98	F98
	333WF	160412WF	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1425	PR1225	PR0155
Finishing	TNMG 3305PP	160402PP	0.008	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F98
	331PP	160404PP	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F98	F99
	332PP	160408PP	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1425	PR1225	PR0155
	333PP	160412PP	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	PR1425	PR1225
Finishing	TNMG 231GP	110404GP	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	232GP	110408GP	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
Finishing-Medium	TNMG 3305GP	160402GP	0.008	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F98
	331GP	160404GP	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
	332GP	160408GP	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F98
Finishing-Medium	TNMG 331PQ	160404PQ	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	332PQ	160408PQ	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
	333PQ	160412PQ	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
Finishing-Medium	TNMG 231HQ	110404HQ	1/64	● ●	● ●	● ●	● ●	● △	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	232HQ	110408HQ	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
Finishing-Medium	TNMG 331HQ	160404HQ	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
	332HQ	160408HQ	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
	333HQ	160412HQ	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
Finishing-Medium	TNMG 331CQ	160404CQ	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	332CQ	160408CQ	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
	333CQ	160412CQ	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
Up Facing	TNMG 432CQ	220408CQ	1/32											CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	433CQ	220412CQ	3/64											CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
Medium-Roughing	TNMG 231GS	110404GS	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D17	F99
	232GS	110408GS	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
Medium-Roughing	TNMG 331GS	160404GS	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
	332GS	160408GS	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
Medium-Roughing	TNMG 331PG	160404PG	1/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99
	332PG	160408PG	1/32	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1725	F99	F99
	333PG	160412PG	3/64	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	CA515	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	D16-D18	F99



How to read this page B15

60° Triangle

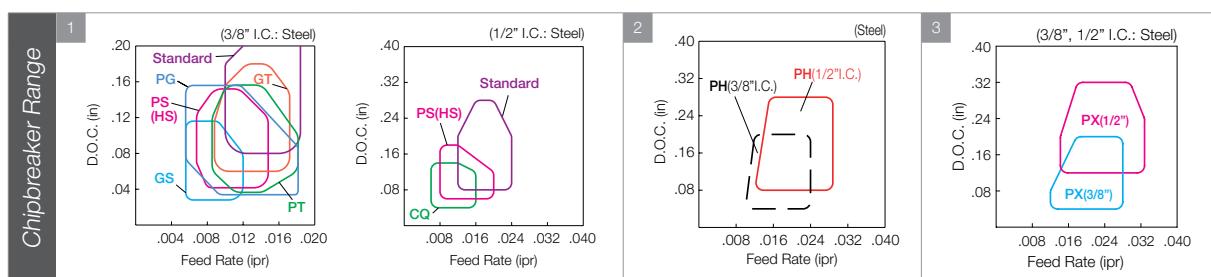
Negative Insert with Hole

ANSI ISO
Part Number Part Number

Medium-Roughing	TNMG 331PS	160404PS	1/64	
	332PS	160408PS	1/32	
	333PS	160412PS	3/64	
Medium-Roughing	TNMG 431PS	220404PS	1/64	
	432PS	220408PS	1/32	
	433PS	220412PS	3/64	
	434PS	220416PS	1/16	
Medium-Roughing	TNMG 332PT	160408PT	1/32	
	333PT	160412PT	3/64	
Medium-Roughing	TNMG 332GT	160408GT	1/32	
	333GT	160412GT	3/64	
Roughing	TNMG 331	160404	1/64	
	332	160408	1/32	
	333	160412	3/64	
	334	160416	1/16	
	335	160420	5/64	
Medium-Roughing	TNMG 431	220404	1/64	
	432	220408	1/32	
	433	220412	3/64	
Medium-Roughing	TNMG 332PH	160408PH	1/32	
	333PH	160412PH	3/64	
	TNMG 432PH	220408PH	1/32	
	433PH	220412PH	3/64	
	434PH	220416PH	1/16	

	Part Number	IC	S	D1	(in)		Part Number	IC	S	D1	(in)
	TN_22_	1/4	1/8	0.089			TN_32_	3/8	1/8	0.150	
	TN_23_	1/4	3/16	0.089			TN_33_	3/8	3/16	0.150	
							TN_43_	1/2	3/16	0.203	

A	INSERT GRADES	B	TURNING INSERTS	C	CBN/PCD INSERTS	D	TURNING HOLDERS	E	SMALL TOOLS	F	BORING	G	GROOVING	H	CUT-OFF	J	THREADING	K	DRILLING	M	MILLING	N	QUICK-CHANGE TOOLING	P	SPARE PARTS	R	TECHNICAL	T	INDEX
---	---------------	---	-----------------	---	-----------------	---	-----------------	---	-------------	---	--------	---	----------	---	---------	---	-----------	---	----------	---	---------	---	----------------------	---	-------------	---	-----------	---	-------



How to read this page → B15

60° Triangle

Negative Insert with Hole

B
TURNING
INSERTS

NEGATIVE

C

D

R

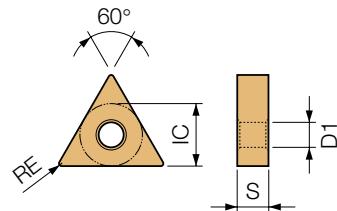
S

T

V

W

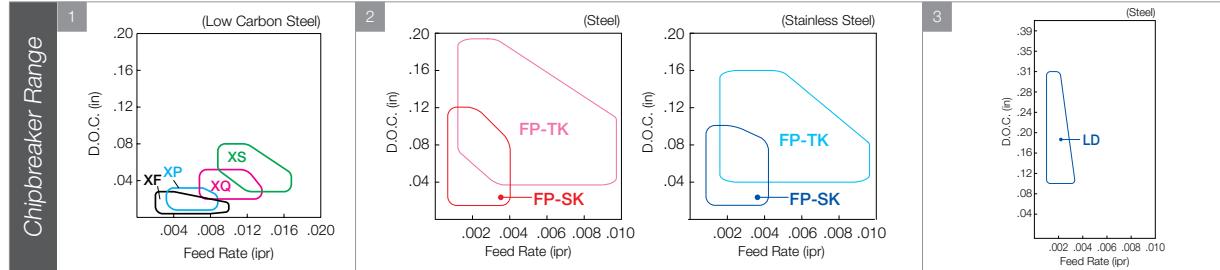
CERAMIC



Part Number	IC	S	D1	(in)	Part Number	IC	S	D1	(in)
TN_22_	1/4	1/8	0.089		TN_33_	3/8	3/16	0.150	
TN_23_	1/4	3/16	0.089		TN_43_	1/2	3/16	0.203	
TN_32_	3/8	1/8	0.150		TN_66_	3/4	3/8	0.312	

Process	Insert Type	Material	Corner Radius (in)												Toolholder Page	Chipbreaker Range		
			RE	TN610	TN820	CCX	PV710	PV720	PV730	PV705	PV80	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide		
Roughing	Single Sided High Feed Rate	TNMM 332PX	1/32									CA510	CA515	CA525	CA530	CA505	D16-D18	F88
		333PX	1/64									CA515	CA525	CA530	CA535	CA550		See B38
	Single Sided High Feed Rate	TNMM 432PX	1/32									CA515	CA525	CA530	CA535	CA550		
		433PX	3/64									CA515	CA525	CA530	CA535	CA550		
		434PX	1/16									CA515	CA525	CA530	CA535	CA550		
Finishing	Small D.O.C. Low Carbon Steel	TNMG 331XF	1/64	●●	●●●●●							CA515	CA525	CA530	CA535	CA550	D16-D18	F88
		332XF	1/32	●●	●●●●●							CA515	CA525	CA530	CA535	CA550		See B38
Finishing	Low Carbon Steel	TNMG 331XP	1/64	●●●●●●●●●●								CA515	CA525	CA530	CA535	CA550	D16-D18	F88
		332XP	1/32	●●	●●●●●●●●●●							CA515	CA525	CA530	CA535	CA550		3
Medium	Low Carbon Steel	TNMG 331XQ	1/64	●●●●●●●●●●								CA515	CA525	CA530	CA535	CA550	D16-D18	F88
		332XQ	1/32	●●●●●●●●●●								CA515	CA525	CA530	CA535	CA550		F98
Roughing	Low Carbon Steel	TNMG 332XS	1/32	●●	●●	●●	●●●●●●●●●●					CA515	CA525	CA530	CA535	CA550	D16-D18	F88
Finishing-Medium	Sharp Edge / Polished	TNGG 3302MFP-SK	<0.004				●					CA515	CA525	CA530	CA535	CA550	D16-D18	F98
		3305MFP-SK	<0.008				●					CA515	CA525	CA530	CA535	CA550		F99
Large D.O.C.	Sharp Edge / Polished	331MFP-SK	<1/64				●					CA515	CA525	CA530	CA535	CA550	D16-D18	E51
		TNMG 3305R-LD	0.008									CA515	CA525	CA530	CA535	CA550		F88
		331R-LD	1/64									CA515	CA525	CA530	CA535	CA550		F99

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



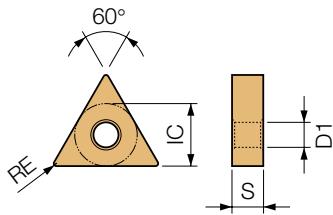
TURNING INSERTS (NEGATIVE)

Cermet / Coated Carbide / Carbide

How to read this page ➔ B15

60° Triangle

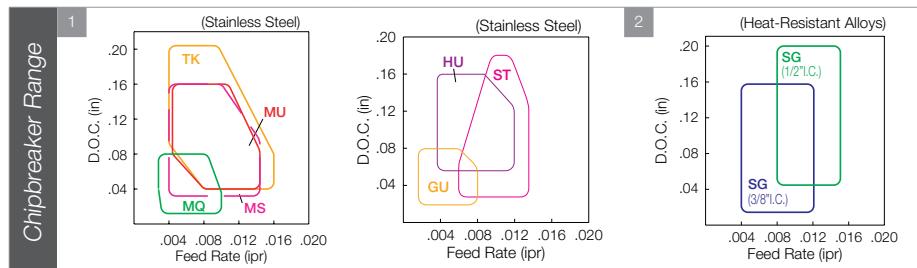
Negative Insert with Hole



Right-Hand
Shown
where Ap-

ANSI ISO
Part Number Part Number

Medium-Roughing		TNGG	331FP-TK	160404FP-TK	1/64															●△●		●		D16-D18	
			332FP-TK	160408FP-TK	1/32															●△●		●		E51 F88 F98 F99	
Medium-Roughing		TNGG	331TK	160404TK	1/64																△△		●		
			332TK	160408TK	1/32															△△		●			
Medium-Roughing		TNMG	331TK	160404TK	1/64														●●		●	△			
			332TK	160408TK	1/32														●●		●	△			
Finishing/Medium		TNMG	331MQ	160404MQ	1/64														●●	●●△△△●	●	△			
			332MQ	160408MQ	1/32														●●	●●△△△●	●	△			
Medium-Roughing		TNMG	331MS	160404MS	1/64														●●	●●△△△●	●	△		D16-D18	
			332MS	160408MS	1/32														●●	●●△△△●	●	△		F88 F98 F99	
			333MS	160412MS	3/64														●●	●●△△●	●	△			
Medium-Roughing		TNMG	331MU	160404MU	1/64														●●	●●△△△●	●	△			
			332MU	160408MU	1/32														●●	●●△△△●	●	△			
Medium-Roughing		TNMG	331R-ST	160404R-ST	1/64	●●●●	●●●●												●●		●	△			
			331L-ST	160404L-ST	1/64	●●●●	●●●●												●●		●	△			
			332R-ST	160408R-ST	1/32	●●●●	●●●●												●●		●	△			
			332L-ST	160408L-ST	1/32	●●●●	●●●●												●●		●	△			
Roughing		TNMG	332SG	160408SG	1/32														●●		●	●			
			333SG	160412SG	3/64														●●		●	●		D16 D17	
		TNMG	432SG	220408SG	1/32														●●		●	●		F98	
			433SG	220412SG	3/64														●●		●	●			



For Heat-Resistant
Alloys See B8

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

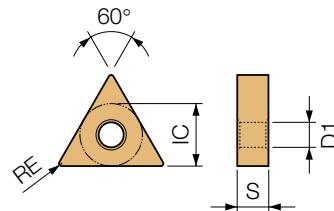
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page ➔ B15

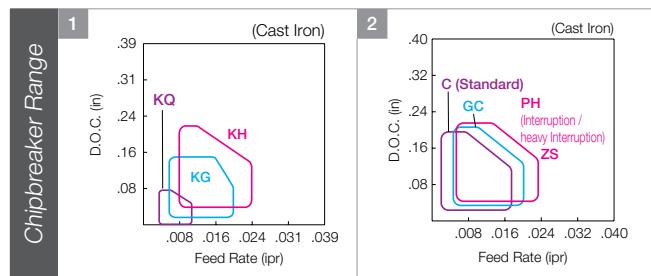
60° Triangle

Negative Insert with Hole



Part Number	IC	S	D1	(in)
TN_22_	1/4	1/8	0.089	
TN_23_	1/4	3/16	0.089	

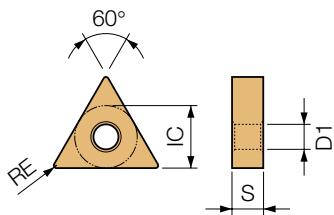
Part Number	IC	S	D1
TN_32_	3/8	1/8	0.150
TN_33_	3/8	3/16	0.150
TN_43_	1/2	3/16	0.203



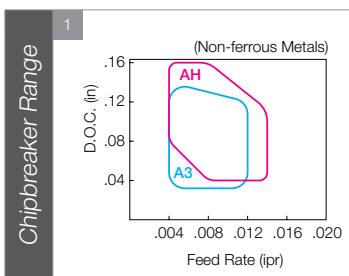
How to read this page ➔ B15

60° Triangle

Negative Insert with Hole



		ANSI Part Number	ISO Part Number
	Right-Hand Shown where Applicable		
Finishing-Medium		TNGG 331R-A3 331L-A3 332R-A3 332L-A3	160404R-A3 160404L-A3 160408R-A3 160408L-A3
	Sharp Edge Non-ferrous Metals		
Medium-Roughing		TNGG 331AH 332AH	160404AH 160408AH
	Sharp Edge Non-ferrous Metals		
Medium-Roughing		TNMG 331AH 332AH	160404AH 160408AH
	With Honing Non-ferrous Metals		



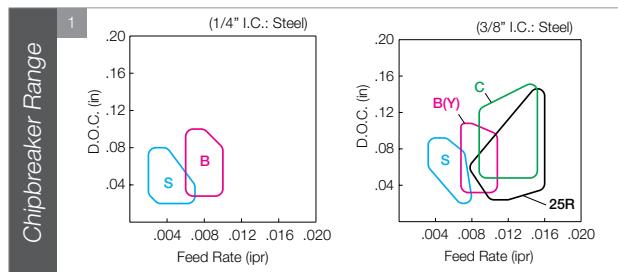
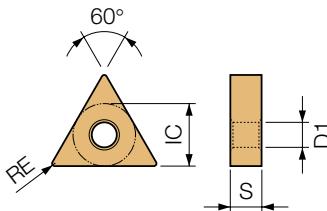
Part Number	IC	S	D1	(in)
TN_22_	1/4	1/8	0.089	
TN_23_	1/4	3/16	0.089	

Part Number	IC	S	D1	(in)
TN_32_	3/8	1/8	0.150	
TN_33_	3/8	3/16	0.150	
TN_43_	1/2	3/16	0.203	

How to read this page ➔ B15

60° Triangle

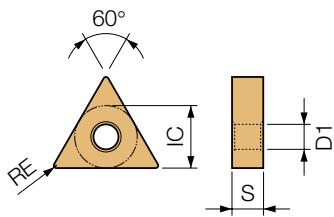
Negative Insert with Hole



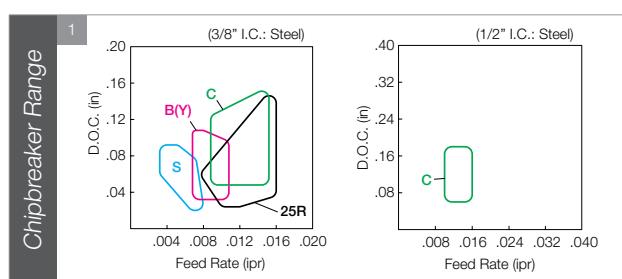
How to read this page ➔ B15

60° Triangle

Negative Insert with Hole



Right-Hand Shown
where Applicable



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

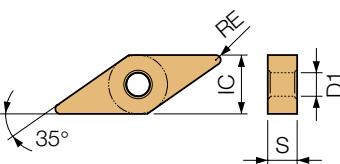
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page ➔ B15

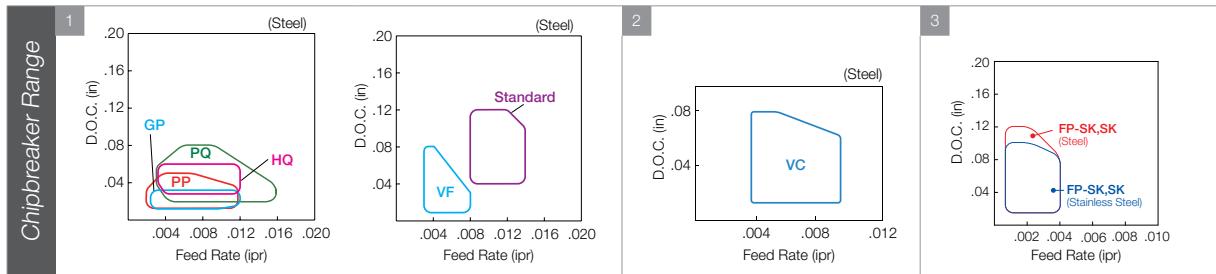
35° Diamond

Negative Insert with Hole



Right-Hand Shown

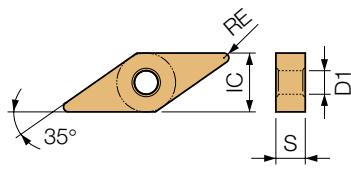
ANSI ISO
Part Number Part Number



How to read this page B15

35° Diamond

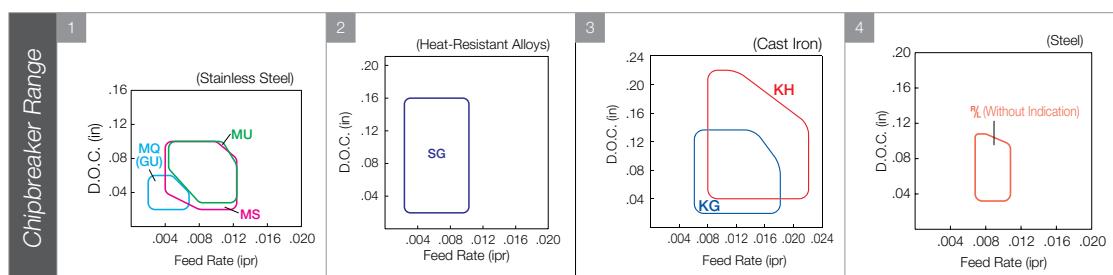
Negative Insert with Hole



ANSI ISO
Part Number Part Number

Finishing-Medium	VNMG 331MQ	160404MQ	1/64													●●		●●△△△●		△		●	
Stainless Steel / HRSA	332MQ	160408MQ	1/32													●●		●●△△△●		△		●	
Medium-Roughing	VNMG 331MS	160404MS	1/64													●●		●●△△△●		△		●	
Stainless Steel / HRSA	332MS	160408MS	1/32													●●		●●△△△●		△		●	
Medium-Roughing	333MS	160412MS	3/64													●●		●●△△●		△			
Medium-Roughing	VNGG 3302MU	160401MU	0.004																●●				
Stainless Steel / HRSA	3305MU	160402MU	0.008																●●				
Medium-Roughing	VNMG 331MU	160404MU	1/64													●●		●●△△△●		△		●	
Stainless Steel / HRSA	332MU	160408MU	1/32													●●		●●△△△●		△		●	
Roughing	VNMG 331SG	160404SG	1/64															●●		●●		●	
Heat-Resistant Alloy	332SG	160408SG	1/32															●●		●●		●	
Medium-Roughing	VNMG 332KH	160408KH	1/32															●●●●					
Cast Iron	333KH	160412KH	3/64															●●●●					
Medium-Roughing	VNMG 332KG	160408KG	1/32															●●●●					
Cast Iron	333KG	160412KG	3/64															●●●●					
Cast Iron	VNGA 331	160404	1/64							●												●	
Without Chipbreaker	332	160408	1/32						●													●	
Medium	VNGG 3305R	160402R	0.008	●●●●	●●●●				●●●●	●●●●								●					
	3305L	160402L	0.008	●●●●	●●●●				●●●●	●●●●								●					
	331R	160404R	1/64	●●●●	●●●●				●●●●	●●●●								●				●	
	331L	160404L	1/64	●●●●	●●●●				●●●●	●●●●								●				●	
	332R	160408R	1/32	●●●●	●●●●				●●●●	●●●●								●				●	
	332L	160408L	1/32	●●●●	●●●●				●●●●	●●●●								●				●	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

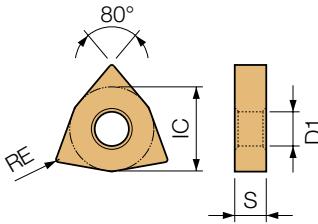


How to read this page B15

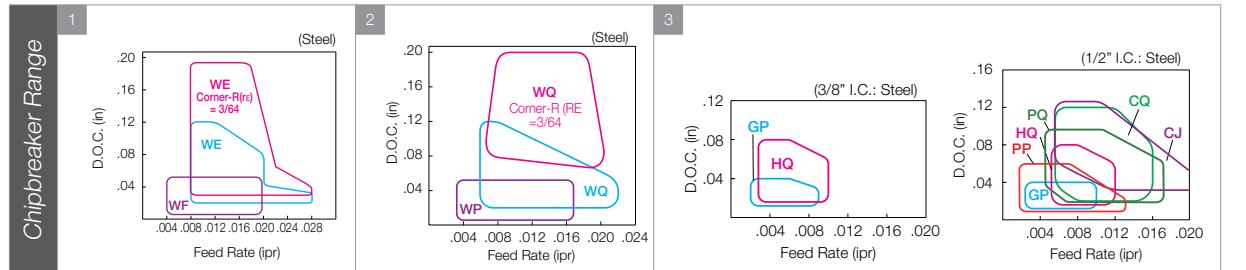
80° Trigon

Negative Insert with Hole

B	Turning Inserts
NEGATIVE	
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



	ANSI Part Number	ISO Part Number	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
Finishing	WNMG 431WF	080404WF	1/64	● ●	● ●	● ● ● ●								1
	432WF	080408WF	1/32	● ●	● ●	● ● ● ●								
Finishing	WNMG 431WP	080404WP	1/64	● ●	● ●	● ● ● ●								2
	432WP	080408WP	1/32	● ●	● ●	● ● ● ● ● ●								
Finishing-Medium	WNMG 431WE	080404WE	1/64	● ●	● ●	● ● ● ●								D26
	432WE	080408WE	1/32	● ●	● ●	● ● ● ●								D27
	433WE	080412WE	3/64	● ●	● ●	● ● ● ●								F101
Finishing-Medium	WNMG 431WQ	080404WQ	1/64	● ●	● ●	● ● ● ●	●	● ● ● ●	● ●					1
	432WQ	080408WQ	1/32	● ●	● ●	● ● ● ●	●	● ● ● ●	● ●					2
	433WQ	080412WQ	3/64	●	●	● ● ● ●	●	● ● ● ●	● ●					
Finishing	WNMG 4305PP	080402PP	0.008	● ●	● ●	● ● ● ●	● ●	● ● ● ●	● ●					
	431PP	080404PP	1/64	● ●	● ●	● ● ● ●	● ●	● ● ● ●	● ●					
	432PP	080408PP	1/32	● ●	● ●	● ● ● ●	● ●	● ● ● ●	● ●					
	433PP	080412PP	3/64	● ●	● ●	● ● ● ●	● ●	● ● ● ●	● ●					
Finishing	WNMG 331GP	060404GP	1/64	● ●	● ●	● ● ● ●	●	●						D26-D27
	332GP	060408GP	1/32	● △	● △	● ● ● ●	●	●						F100
Finishing-Medium	WNMG 431GP	080404GP	1/64	● ●	● ●	● ● ● ●	●	●						D26
	432GP	080408GP	1/32	● ●	● ●	● ● ● ●	●	●						D27
	433GP	080412GP	3/64	● ●	● ●	● ● ● ●	●	●						F101
Finishing-Medium	WNMG 431PQ	080404PQ	1/64	● ●	● ●	● ● ● ●	● ●	● ● ● ●	●					3
	432PQ	080408PQ	1/32	● ●	● ●	● ● ● ●	● ●	● ● ● ●	●					
	433PQ	080412PQ	3/64	● ●	● ●	● ● ● ●	● ●	● ● ● ●	●					
Finishing-Medium	WNMG 3251HQ	06T304HQ	1/64	● ●	● ●	● ● ● ●	● ●	● ● ● ●	● ●					-
	3252HQ	06T308HQ	1/32	△	△	● ● ● ●	● ●	● ● ● ●	● ●					
Finishing-Medium	WNMG 331HQ	060404HQ	1/64	● ● ●	● ● ●	● ● ● ●	● ●	● ● ● ●	● ●					D26-D27
	332HQ	060408HQ	1/32	● ● ●	● ● ●	● ● ● ●	● ●	● ● ● ●	● ●					F100
Finishing-Medium	WNMG 431HQ	080404HQ	1/64	● ● ●	● ● ●	● ● ● ●	● ●	● ● ● ●	● ●	●	△			D26
	432HQ	080408HQ	1/32	● ● ●	● ● ●	● ● ● ●	● ●	● ● ● ●	● ●	●	△			D27
	433HQ	080412HQ	3/64	● ● △	● ● ●	● ● ● ●	● ●	● ● ● ●	● ●	●	△			F101
														F102

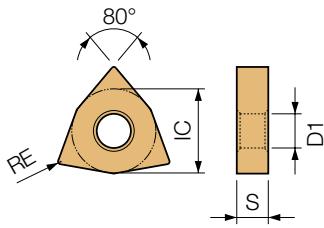


● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

How to read this page ➔ B15

80° Trigon

Negative Insert with Hole

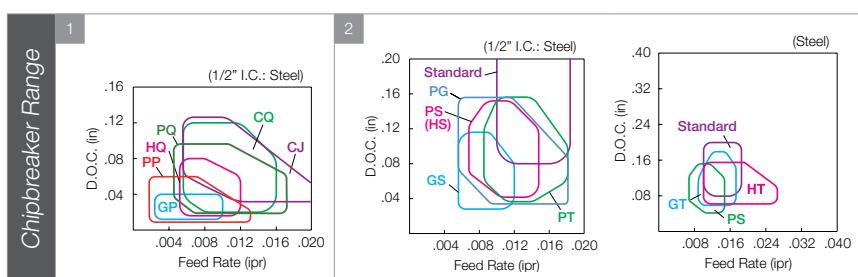


ANSI ISO
Part Number Part Number

	Finishing-Medium	WNMG 431CQ	080404CQ
		432CQ	080408CQ
Up Facing		433CQ	080412CQ
	Finishing-Medium	WNMG 432CJ	080408CJ
		433CJ	080412CJ
Up Facing		WNMG 331GS	060404GS
	Medium-Roughing	332GS	060408GS
		WNMG 431GS	080404GS
		432GS	080408GS
		433GS	080412GS
	Medium-Roughing	WNMG 431PG	080404PG
		432PG	080408PG
		433PG	080412PG
		434PG	080416PG
	Medium-Roughing	WNMG 431PS	080404PS
		432PS	080408PS
		433PS	080412PS
		434PS	080416PS
	Medium-Roughing	WNMG 432PT	080408PT
		433PT	080412PT
High Feed Rate		WNMG 432GT	080408GT
	Medium-Roughing	433GT	080412GT
High Feed Rate		WNMG 433HT	080412HT
	Medium-Roughing	WNMG 431	80404
		432	80408
		433	80412
Roughing			

Part Number	IC	S	D1	(in)
WN_325_	3/8	5/32	0.150	
WN_33_	3/8	3/16	0.150	

Part Number	IC	S	D1
WN_43_	1/2	3/16	0.203



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

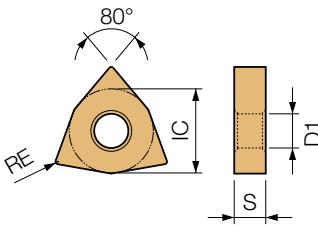
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Inserts sold in 10 piece boxes.

How to read this page B15

80° Trigon

Negative Insert with Hole

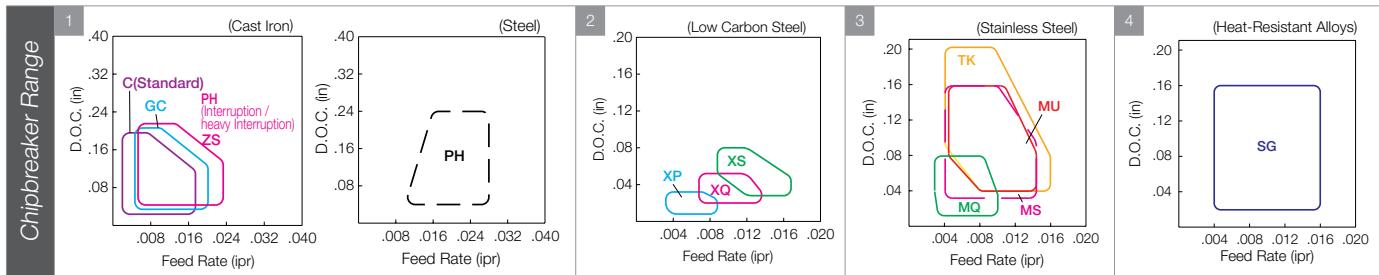
B
TURNING
INSERTS**N**
NEGATIVE**C****D****R****S****T****V****W****CERAMIC**

Part Number	IC	S	D1
WN_325_	3/8	5/32	0.150
WN_33_	3/8	3/16	0.150

Part Number	IC	S	D1
WN_43_	1/2	3/16	0.203

ANSI ISO
Part Number Part Number

		RE	TNG610	TNG20	TCX	PV710	PV720	PV730	PV7005	PV80	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range			
Roughing			WNMG 432PH	080408PH	1/32						● ● ● ● ●	CA510	CA515	CA525	CA5505	CA5515	CA5525	CA5535	CA4515	PR1705	PR1005	PR1025	1	
			433PH	080412PH	3/64						● ● ● ● ●	CA025P	CA530	CA565	CA6515	CA6525	CA310	CA315	CA320	CA4505	PR1725	PR0055	PR0155	
Finishing			WNMG 431XP	080404XP	1/64	● ● △	● ● ● ●				● ● ● ●	CA515	CA515	CA525	CA6515	CA6525	CA310	CA315	CA320	CA4515	PR1425	PR1305	PR1310	
	Low Carbon Steel		432XP	080408XP	1/32	● ● △	● ● ● ●				● ● ● ●	CA515	CA515	CA525	CA6515	CA6525	CA310	CA315	CA320	CA4515	PR1705	PR1005	PR1025	
Medium			WNMG 431XQ	080404XQ	1/64	● ●	● ● ● ●				● ● ● ●	CA515	CA515	CA525	CA6515	CA6525	CA310	CA315	CA320	CA4515	PR1725	PR0055	PR0155	
	Low Carbon Steel		432XQ	080408XQ	1/32	● ● △	● ● ● ●				● ● ● ●	CA515	CA515	CA525	CA6515	CA6525	CA310	CA315	CA320	CA4515	PR1705	PR1005	PR1025	
Roughing			WNMG 432XS	080408XS	1/32	●	● ●	●	● ● ● ●	● ●														
Low Carbon Steel																								
Medium-Roughing			WNGG 431TK	080404TK	1/64														△△					
Sharp Edge			432TK	080408TK	1/32														△△					
Medium-Roughing			WNMG 431TK	080404TK	1/64														△△	●	△	D26		
Stainless Steel / HRSA			432TK	080408TK	1/32														△△△△	●	△	D27		
Finishing/Medium			WNMG 431MQ	080404MQ	1/64														●●△△△△	●	△	F101		
Stainless Steel / HRSA			432MQ	080408MQ	1/32														●●△△△△	●	△	F102		
Medium-Roughing			WNMG 431MS	080404MS	1/64														●●△△△△	●	△			
Stainless Steel / HRSA			432MS	080408MS	1/32														●●△△△△	●	△			
Medium-Roughing			WNMG 431MS	080412MS	3/64														●●△△△△	●	△			
Stainless Steel / HRSA			433MS	080412MS	3/64														●●△△△△	●	△			
Medium-Roughing			WNMG 431MU	080404MU	1/64														●●△△△△	●	△			
Stainless Steel / HRSA			432MU	080408MU	1/32														●●△△△△	●	△			
Medium-Roughing			WNMG 431MU	080404MU	1/64														●●△△△△	●	△			
Stainless Steel / HRSA			432MU	080408MU	1/32														●●△△△△	●	△			
Roughing			WNMG 432SG	080408SG	1/32														●●	●	●			
Heat-Resistant Alloy			433SG	080412SG	3/64														●●	●	●			



For Heat-Resistant Alloys See B8

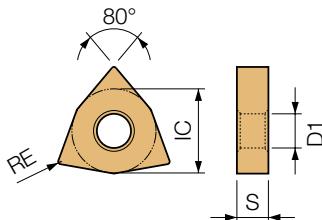
● : Standard Item △ : Phaseout Item (will be removed from next catalog)

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How to read this page ➔ B15

80° Trigon

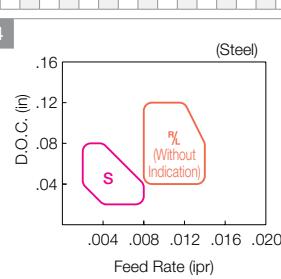
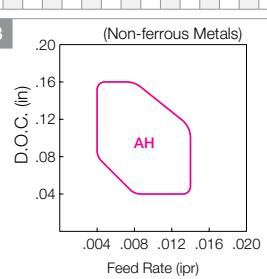
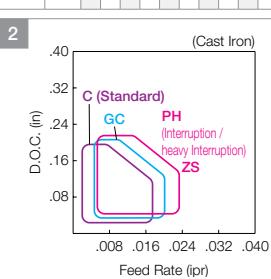
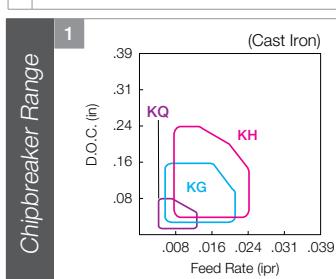
Negative Insert with Hole



		ANSI Part Number	ISO Part Number
Sharp Edge		WNMG 431KQ	080404KQ
		432KQ	080408KQ
	Cast Iron	433KQ	080412KQ
Medium		WNMG 431KG	080404KG
		432KG	080408KG
	Cast Iron	433KG	080412KG
Medium-Roughing		WNMG 432KH	080408KH
		433KH	080412KH
	Cast Iron	434KH	080416KH
Roughing		WNMG 431C	080404C
		432C	080408C
	Cast Iron	433C	080412C
Roughing		WNMG 432ZS	080408ZS
		433ZS	080412ZS
	Cast Iron		
Roughing		WNMG 432GC	080408GC
		433GC	080412GC
	Cast Iron		
Cast Iron		WNMA 432	080408
	Without Chipbreaker	433	080412
Medium-Roughing		WNGG 431AH	080404AH
	Sharp Edge Non-Ferrous	432AH	080408AH
Finishing		WNGG 3305R-S	060402R-S
		3305L-S	060402L-S
		331R-S	060404R-S
		331L-S	060404L-S
	Surface Roughness Oriented	332R-S	060408R-S
		332L-S	060408L-S
Medium		WNGG 331R	060404R
		331L	060404L

Part Number	IC	S	D1	(in)
WN_325_	3/8	5/32	0.150	
WN_33_	3/8	3/16	0.150	

Part Number	IC	S	D1
WN_43_	1/2	3/16	0.203



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

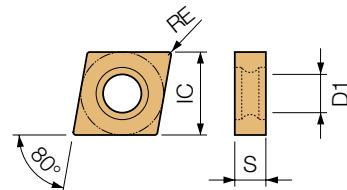
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

Small Double-Sided / 80° Diamond

Turning Inserts



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

- Small Double-Sided Tool Identification System

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

- If a minus tolerance is specified for the corner-R (RE) as shown in Fig.1, using an insert with corner-R = 0.008" may result in larger radius than specified.
 - Use an insert whose corner-R (RE) has a minus tolerance.

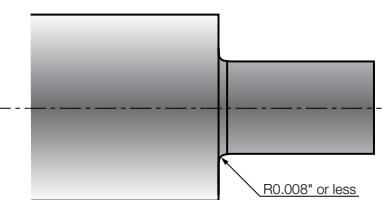
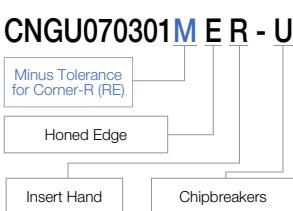
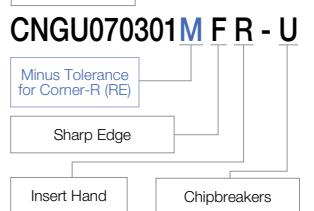
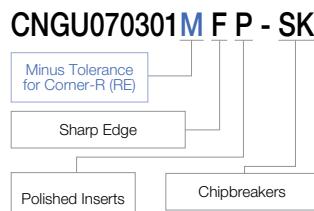


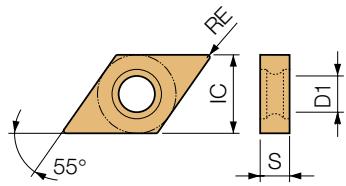
Fig.1 Example of a specified corner-R in drawing

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

How to read this page B15

Small Double-Sided / 55° Diamond

Turning Inserts



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

■ Chipbreaker Selection (Negative Inserts)

Cutting Range	Name	Cross-Section	Advantages
Finishing-Medium	SK		A low cutting force chipbreaker designed for chip control in steel and stainless steel. Cutting performance is similar to comparably sized positive inserts.
Medium-Roughing	GK		Chipbreaker "dot" and pocket design provide chip control at multiple depths of cut and feed rates.
Finishing	F		Controlled chip evacuation direction with low cutting forces.
Low Feed	U		Good chip control at low feed rates and varied depths of cut with low cutting forces.

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

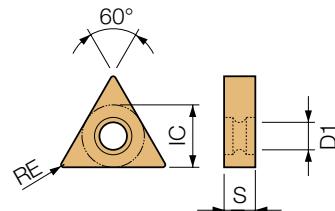
Inserts sold in 10 piece boxes.

How to read this page B15

Part Number	IC	S	D1
TN_182_	7/32	1/8	0.118

Small Double-Sided / 60° Triangle

Turning Inserts

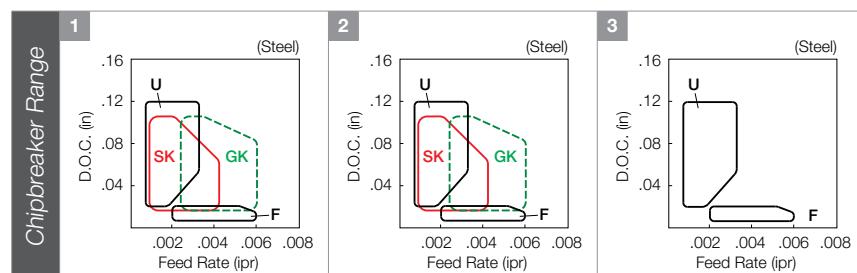


Right-Hand Shown where Applicable
ANSI Part Number ISO Part Number

			Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range	
		RE	TN610	TN820	TN60	CCX	PV710	PV720	PV730	PV705	CA510	CA515	CA025P	CA525	Free-Cutting Steel
											CA5505	CA5515	CA5525	CA5535	Carbon/Alloy Steel
											CA6515	CA6525	CA6535	CA310	Stainless Steel
											CA315	CA320	CA4505	CA4515	Gray Cast Iron
											CA4515	PR1725	PR1425	PR1055	Nodular Cast Iron
											PR1725	PR1225	PR1305	PR1310	Non-ferrous Metals
											PR1425	PR1225	PR1325	PR1325	HRSA
											PR1055	PR1125	PR1025	PR1125	Titanium Alloy
											PR1305	PR1310	PR1325	PR1325	Hard materials
											PR1325	PR1535	PR930	PR1005	
											PR1535	PR1125	PR1025	PR1125	
											PR1125	PDL010	PDL025	KW10	
											PDL010	PDL025	SW05	SW05	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

E49 3

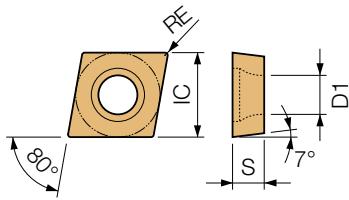


● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

80° Diamond

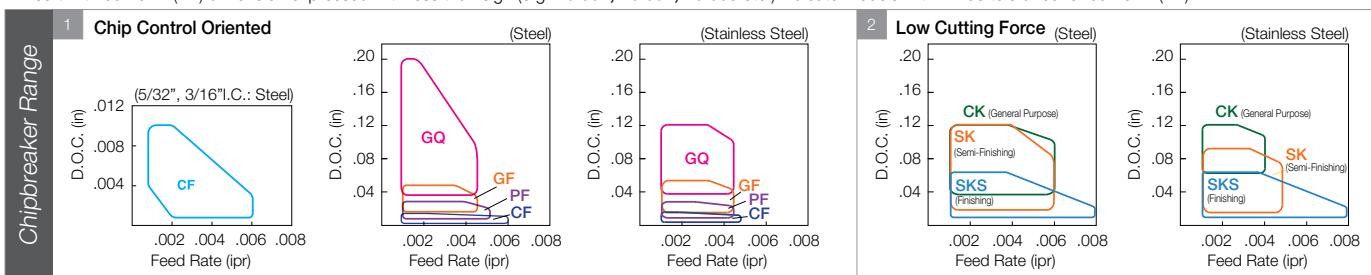
Positive Insert with Hole



ANSI ISO
Part Number Part Number

			Part Number	Part Name
	Minute D.O.C.	Minute D.O.C.		
	Sharp Edge	CCGT 110902MF-CF 110905MF-CF	030101MF-CF 030102MF-CF	
	Sharp Edge / Polished	CCGT 141102MF-CF 141105MF-CF	040101MF-CF 040102MF-CF	
	Finishing	CCGT 110902MP-CF 110905MP-CF	030101MP-CF 030102MP-CF	
	Sharp Edge / Polished	CCGT 141102MP-CF 141105MP-CF	040101MP-CF 040102MP-CF	
	Finishing	CCGT 110902MFP-PF 110905MFP-PF	030101MFP-PF 030102MFP-PF	
	Sharp Edge / Polished	CCGT 141102MFP-PF 141105MFP-PF	040101MFP-PF 040102MFP-PF	
	Finishing	CCGT 21502MF-PFP 21505MFP-PF	060201MF-PFP 060202MFP-PF	
	Sharp Edge / Polished	CCGT 2151MFP-PF	060204MF-PFP	
	Finishing	CCGT 21502MF-GF 21505MF-GF	060201MF-GF 060202MF-GF	
	Sharp Edge	CCGT 32502MF-GF 32505MF-GF	09T301MF-GF 09T302MF-GF	
	Finishing	CCGT 21502MF-GF 21505MFP-GF	060201MF-GF 060202MFP-GF	
	Sharp Edge / Polished	CCGT 32502MFP-GF 32505MFP-GF	09T301MF-GF 09T302MFP-GF	
	Finishing	CCGT 215013MF-SKS 21502MFP-SKS	0602005MF-SKS 060201MF-SKS	
	Sharp Edge / Polished	CCGT 21505MFP-SKS	060202MFP-SKS	
	Finishing	CCGT 325013MF-SKS 32502MFP-SKS	09T3005MF-SKS 09T301MF-SKS	
	Sharp Edge / Polished	CCGT 32505MFP-SKS 3251MFP-SKS	09T302MF-SKS 09T304MF-SKS	
	Finishing	CCGT 21502MF-SK 21505MFP-SK	060201MF-SK 060202MFP-SK	
	Sharp Edge / Polished	CCGT 2151MFP-SK	060204MF-SK	
	Finishing	CCGT 21502MFP-SK 21505MFP-SK	09T301MF-SK 09T302MFP-SK	
	Sharp Edge / Polished	CCGT 3251MFP-SK	09T304MF-SK	
	Finishing	CCGT 21502MP-CK 21505MP-CK	060201MP-CK 060202MP-CK	
	Sharp Edge / Polished	CCGT 32502MP-CK 32505MP-CK	09T301MP-CK 09T302MP-CK	
	Finishing-Medium	CCGT 21502MF-GQ 21505MF-GQ	060201MF-GQ 060202MF-GQ	
	Sharp Edge	CCGT 2151MFP-GQ	060204MF-GQ	
	Finishing-Medium	CCGT 32502MF-GQ 32505MF-GQ	09T301MF-GQ 09T302MF-GQ	
	Sharp Edge	CCGT 3251MFP-GQ	09T304MF-GQ	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

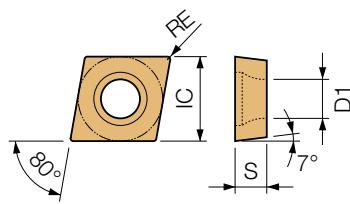
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

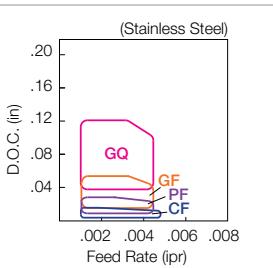
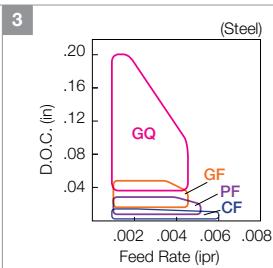
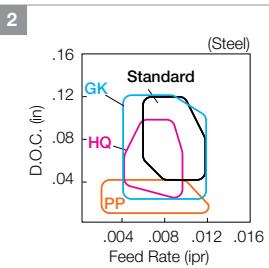
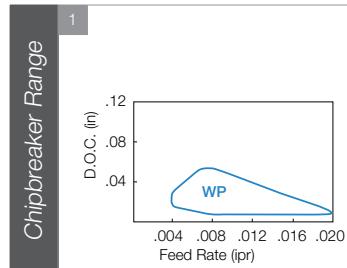
How to read this page B15

80° Diamond

Positive Insert with Hole



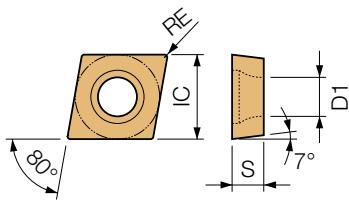
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

80° Diamond

Positive Insert with Hole



Left-Hand
Shown
where Ap-
plicable

Left-Hand Shown where Ap- plicable	ANSI <i>Part Number</i>	ISO <i>Part Number</i>
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Material	Sharp Edge	3251MF	09T304MF
Finishing-Medium		CCMT 3251MQ	09T304MQ
Stainless Steel / HRC51		3252MQ	09T308MQ



Finish: Stainless Steel / 3252MQ 09T308MQ
HRSA

Super Fine	CCET	110901R-FSF	0301003R-FSF
		110901L-FSF	0301003L-FSF
		110902R-FSF	030101R-FSF
		110902L-FSF	030101L-FSF
		110905R-FSF	030102R-FSF

 Finishing	CCET	141101-FSF	0401003L-FSF
		141102R-FSF	040101R-FSF
		141102L-FSF	040101L-FSF
		141105R-FSF	040102R-FSF
		141105L-FSF	040102L-FSF
		141111L-FSF	040104L-FSF
	CCET	1109013MR-FSF	0301005MR-FSF

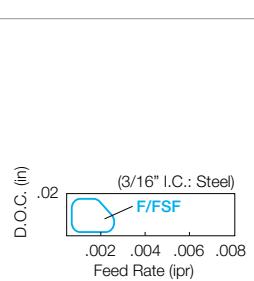
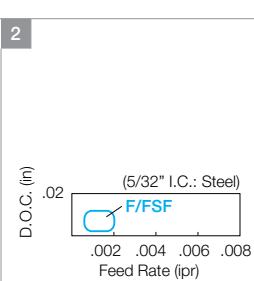
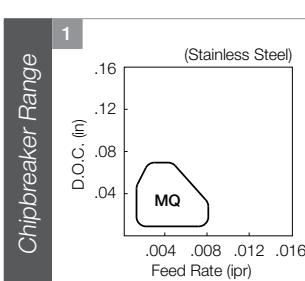
110902ML-FSF	030101ML-FSF
110905MR-FSF	030102MR-FSF
110905ML-FSF	030102ML-FSF
11091MR-FSF	030104MR-FSF
11091ML-FSF	030104ML-FSF

	141105MR-FSF	040102MH-FSF
	141105ML-FSF	040102ML-FSF
Sharp Edge / Precision	14111MR-FSF	040104MR-FSF
	14111ML-FSF	040104ML-FSF



A graph with 'Range' on the y-axis and two vertical bars representing the range for 'Stainless Steel'. The y-axis has tick marks at .12 and .16. The first bar (labeled 1) starts at .12 and ends at .16. The second bar (labeled 2) starts at .12 and ends at .16.

Range	Start	End
1	.12	.16
2	.12	.16



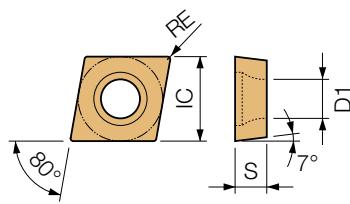
Part Number	Applicable Toolholder Page
CC..215	E24-E26, E45, E52, F29, F47, F49
CC..325	E24-E26, E45, E52, F47, F89

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

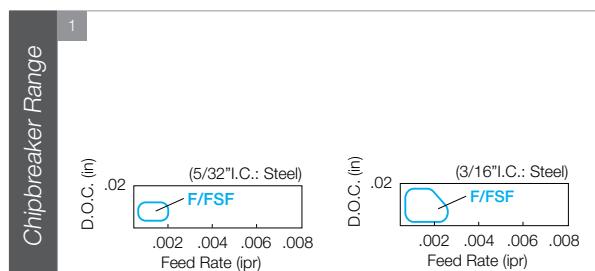
How to read this page B15

80° Diamond

Positive Insert with Hole



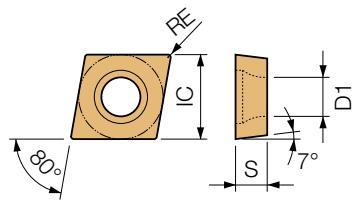
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

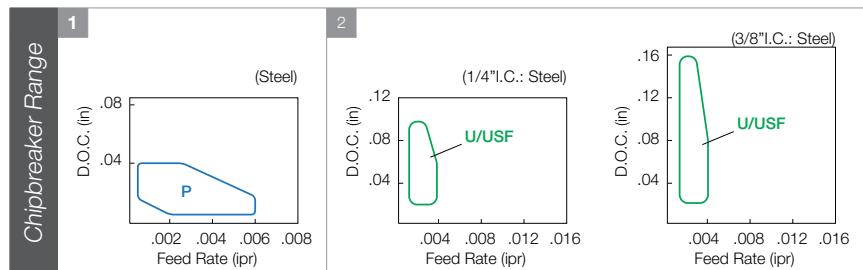
80° Diamond

Positive Insert with Hole



	Left-Hand Shown where Applicable	ANSI <i>Part Number</i>	ISO <i>Part Number</i>
B		CCET 32502MR-P 32502ML-P	09T301MR-P 09T301ML-P

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



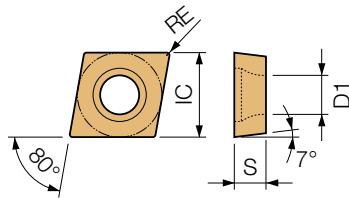
<u>Part Number</u>	<u>Applicable Toolholder Page</u>
CC..215	<u>E24~E26, E45, E52, F29, F47, F49</u>
CC..325	<u>E24~E26, E45, E52, F47, F89</u>

How to read this page B15

80° Diamond

Positive Insert with Hole

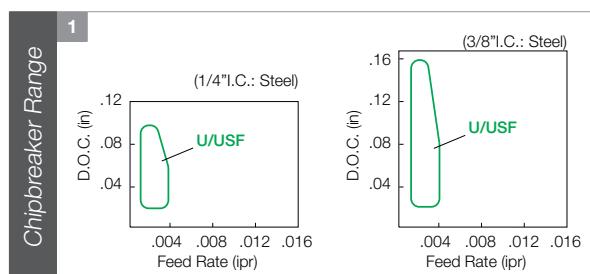
B	TURNING INSERTS
POSITIVE	
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



P	M	K	N	S	H	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Free-Cutting Steel	
																	Carbon/Alloy Steel
																	Stainless Steel
																	Gray Cast Iron
																	Nodular Cast Iron
																	Non-ferrous Metals
																	HRSA
																	Titanium Alloy
																	Hard materials

	ANSI Part Number	ISO Part Number	RE	TNG10	TNG20	CCX	PV710	PV720	PV730	PV7005	PV90	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
CCGT 21501FR-U	0602003FR-U	0.001																				
21501FL-U	0602003FL-U	0.001																				
21502FR-U	060201FR-U	0.004	●●																			
21502FL-U	060201FL-U	0.004	●●																			
21505FR-U	060202FR-U	0.008		●																		
21505FL-U	060202FL-U	0.008		●																		
CCGT 32501FR-U	09T3003FR-U	0.001		●																		
32501FL-U	09T3003FL-U	0.001																				
32502FR-U	09T301FR-U	0.004	●●																			
32502FL-U	09T301FL-U	0.004		●																		
32505FR-U	09T302FR-U	0.008		●																		
32505FL-U	09T302FL-U	0.008		●																		
CCGT 215013MFR-U	0602005MFR-U	<0.002																				
215013MFL-U	0602005MFL-U	<0.002																				
21502MFR-U	060201MFR-U	<0.004																				
21502MFL-U	060201MFL-U	<0.004																				
21505MFR-U	060202MFR-U	<0.008																				
21505MFL-U	060202MFL-U	<0.008																				
2151MFR-U	060204MFR-U	<1/64																				
2151MFL-U	060204MFL-U	<1/64																				
CCGT 325013MFR-U	09T3005MFR-U	<0.002																				
325013MFL-U	09T3005MFL-U	<0.002																				
32502MFR-U	09T301MFR-U	<0.004																				
32502MFL-U	09T301MFL-U	<0.004																				
32505MFR-U	09T302MFR-U	<0.008																				
32505MFL-U	09T302MFL-U	<0.008																				
3251MFR-U	09T304MFR-U	<1/64																				
3251MFL-U	09T304MFL-U	<1/64																				
Sharp Edge																						

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

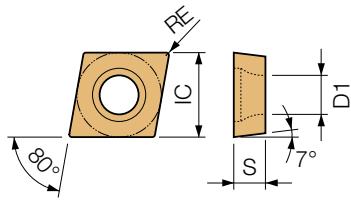


Part Number	Applicable Toolholder Page
CC..215	E24-E26, E45, E52, F29, F47, F49
CC..325	E24-E26, E45, E52, F47, F89

How to read this page B15

80° Diamond

Positive Insert with Hole

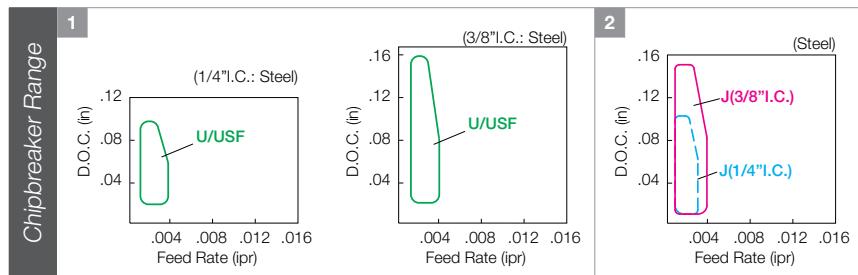


Left-Hand Shown where Applicable

ANSI Part Number ISO Part Number

		P	M	K	N	S	H	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range	
	RE	TIN610 TIN620 TIN80 CCX PV710 PV720 PV730 PV7005 PV90	CA515 CA025P CA525 CA530 CA5505 CA5515 CA5525 CA5535 CA6515 CA6525 CA310 CA315 CA320 CA4505 CA4515 PR1705 PR1725 PR1225 PR015S PR1425 PR1305 PR1310 PR1325 PR1535 PR830 PR1005 PR1025 PR1125 PDL010 PDL025 KW10 SW05															
Low Feed	CCGT 21502ER-U	060201ER-U	0.004	●				●										
	21502EL-U	060201EL-U	0.004	●●●●	●●●●													
	21505ER-U	060202ER-U	0.008	●●●●	●●●●													
	21505EL-U	060202EL-U	0.008	●●●●	●●●●													
	2151ER-U	060204ER-U	1/64	●●●●	●●●●													
	2151EL-U	060204EL-U	1/64	●●●●	●●●●													
	CCGT 32502ER-U	09T301ER-U	0.004	●●●●	●●●●													
	32502EL-U	09T301EL-U	0.004	●●●●	●●●●													
	32505ER-U	09T302ER-U	0.008	●●●●	●●●●													
	32505EL-U	09T302EL-U	0.008	●●●●	●●●●													
	3251ER-U	09T304ER-U	1/64	●●●●	●●●●													
	3251EL-U	09T304ER-U	1/64	●●●●	●●●●													
Honed Edge	CCGT 21505MER-U	060202MER-U	<0.008															
	21505MEL-U	060202MEL-U	<0.008															
	2151MER-U	060204MER-U	<1/64															
	2151MEL-U	060204MEL-U	<1/64															
	CCGT 32502MER-U	09T301MER-U	<0.004															
	32505MER-U	09T302MER-U	<0.008															
	32505MEL-U	09T302MEL-U	<0.008															
	3251MER-U	09T304MER-U	<1/64															
	3251MEL-U	09T304MEL-U	<1/64															
Sharp Edge	CCET 215013MFR-J	0602005MFR-J	<0.002															
	21502MFR-J	060201MFR-J	<0.004															
	21502MFL-J	060201MFL-J	<0.004															
	21505MFR-J	060202MFR-J	<0.008															
	21505MFL-J	060202MFL-J	<0.008															
	CCET 32502MFR-J	09T301MFR-J	<0.004															
	32502MFL-J	09T301MFL-J	<0.004															
	32505MFR-J	09T302MFR-J	<0.008															
	32505MFL-J	09T302MFL-J	<0.008															
	3251MFR-J	09T304MFR-J	<1/64															
	3251MFL-J	09T304MFL-J	<1/64															

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



Part Number	Applicable Toolholder Page
CC..215	E24-E26, E45, E52, F29, F47, F49
CC..325	E24-E26, E45, E52, F47, F89

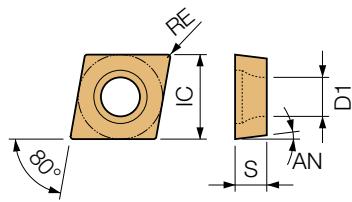
A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERTS GRADES	TURNING INSERTS	CBN/PCD INSERTS	HOLDERS TURNING	SMALL BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX	
INSERTS	CBN/PCD	INSERTS	HOLDERS	SMALL	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX	
GRADE S	GRADE C	GRADE D	GRADE E	GRADE F	GRADE G	GRADE H	GRADE J	GRADE K	GRADE M	GRADE N	GRADE P	GRADE R	GRADE T	
Free Cutting Steel	Carbon/Alloy Steel	Stainless Steel	Gray Cast Iron	Nodular Cast Iron	Non-ferrous Metals	HRSA	Titanium Alloy	Hard materials						

How to read this page B15

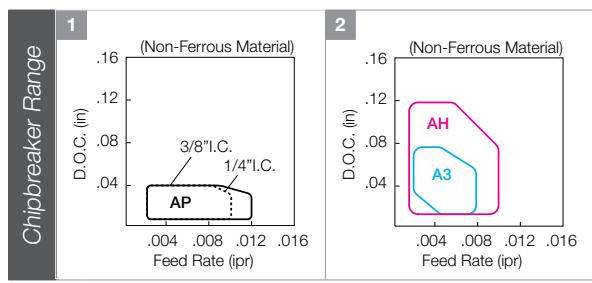
80° Diamond

Positive Insert with Hole

B	TURNING INSERTS
POSITIVE	
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



	ANSI Part Number	ISO Part Number	Left-Hand Shown where Applicable	Finishing-Medium	Sharp Edge / Polished
CCGT	21505AP	060202AP		RE	TN610
	2151AP	060204AP			TN820
CCGT	32505AP	09T302AP		RE	CCX
	3251AP	09T304AP			PV710
	3252AP	09T308AP			PV720
					PV730
					PV7005
					CA510
					CA515
					CA025P
					CA530
					CA5605
					CA5615
					CA5625
					CA5635
					CA6515
					CA6525
					CA6535
					CA310
					CA315
					CA320
					CA4505
					CA4515
					PR1705
					PR1725
					PR1425
					PR1225
					PR005S
					PR015S
					PR1305
					PR1310
					PR1325
					PR1535
					PR930
					PR1005
					PR1025
					PR1125
					PDL010
					PDL025
					KW10
					SW05



Part Number	IC	S	D1	(in)	AN	Part Number	IC	S	D1	(in)	AN
CC_215_	1/4	3/32	0.110		7°	CP_215_	1/4	3/32	0.110		
CC_325_	3/8	5/32	0.173			CP_325_	3/8	5/32	0.123		11°
CC_43_	1/2	3/16	0.217								

P											Free-Cutting Steel
M											Carbon/Alloy Steel
K											Stainless Steel
N											Gray Cast Iron
S											Nodular Cast Iron
H											Non-ferrous Metals
											HRSA
											Titanium Alloy
											Hard materials

Reference Table Below

1

2

E26

Reference Table Below

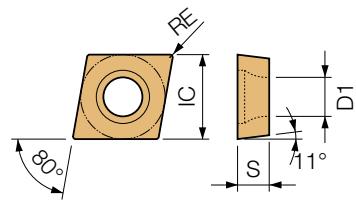
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Part Number	Applicable Toolholder Page
CC_215	E24~E26, E45, E52, F29, F47, F49
CC_325	E24~E26, E45, E52, F47, F89

How to read this page B15

80° Diamond

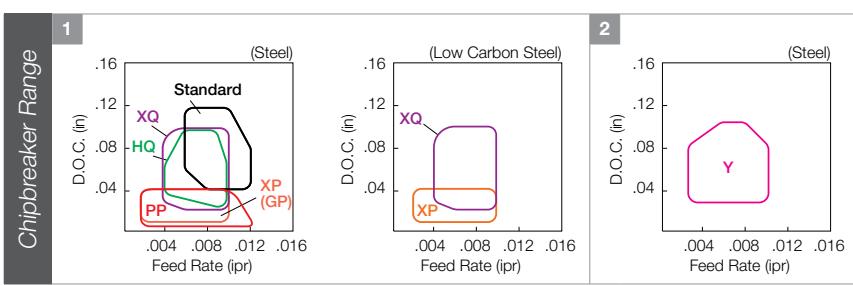
Positive Insert with Hole


 Left-Hand Shown where Applicable
ANSI Part Number **ISO** Part Number

		Finishing	Finishing	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
CPMT 251505PP	080202PP	0.008	TNG610	CA515	CA515	CA515	CA515	PR1725	PR1425	PR005S	PR80	1	
25151PP	080204PP	1/64	TNG20	TN60	CCX	PV710	PV720	PR1225	PR1025	PR015S	PR1005		
CPMT 3205PP	090302PP	0.008			CA530	PV730	PV7005	CA5505	CA5525	CA5535	CA5535		
321PP	090304PP	1/64						CA5515	CA5525	CA5535	CA5535		
322PP	090308PP	1/32						CA5615	CA5625	CA310	CA310		
CPMT 25151GP	080204GP	1/64						CA315	CA320	CA4505	CA4515		
CPMT 321GP	090304GP	1/64						CA4515	CA4515	PR1705	PR1535		
322GP	090308GP	1/32						PR1705	PR1725	PR1425	PR1225		
CPMH 25151HQ	080204HQ	1/64						PR1705	PR1725	PR1425	PR1225		
25152HQ	080208HQ	1/32						CA515	CA515	CA515	CA515		
CPMH 321HQ	090304HQ	1/64						CA515	CA515	CA515	CA515		
322HQ	090308HQ	1/32						CA515	CA515	CA515	CA515		
CPMH 25151	080204	1/64						CA515	CA515	CA515	CA515		
25152	080208	1/32						CA515	CA515	CA515	CA515		
CPMH 321	090304	1/64						CA515	CA515	CA515	CA515		
322	090308	1/32						CA515	CA515	CA515	CA515		
CPMT 25151XP	080204XP	1/64						CA515	CA515	CA515	CA515		
CPMT 321XP	090304XP	1/64						CA515	CA515	CA515	CA515		
Low Carbon Steel	322XP	090308XP	1/32					CA515	CA515	CA515	CA515		
CPMT 321XQ	090304XQ	1/64						CA515	CA515	CA515	CA515		
Low Carbon Steel	322XQ	090308XQ	1/32					CA515	CA515	CA515	CA515		
CPMH 25151R-Y	080204R-Y	1/64						CA515	CA515	CA515	CA515		
25151L-Y	080204L-Y	1/64						CA515	CA515	CA515	CA515		
25152L-Y	080208L-Y	1/32						CA515	CA515	CA515	CA515		
CPMH 321R-Y	090304R-Y	1/64						CA515	CA515	CA515	CA515		
321L-Y	090304L-Y	1/64						CA515	CA515	CA515	CA515		
322R-Y	090308R-Y	1/32						CA515	CA515	CA515	CA515		
322L-Y	090308L-Y	1/32						CA515	CA515	CA515	CA515		
CPMB 251505	080202	0.008						CA515	CA515	CA515	CA515		
25151	080204	1/64						CA515	CA515	CA515	CA515		
25152	080208	1/32						CA515	CA515	CA515	CA515		
CPMB 3205	090302	0.008						CA515	CA515	CA515	CA515		
321	090304	1/64						CA515	CA515	CA515	CA515		
322	090308	1/32						CA515	CA515	CA515	CA515		

F51
F53

2



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

KYOCERA

B61

INSER GRAD ES	TURN ING INSET S	CBN/CD INSET S	TURN ING HOLDER S	SMALL BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
A	B	C	D	E	F	G	H	J	K	M	N	P	R
INSER GRAD ES	TURN ING INSET S	CBN/CD INSET S	TURN ING HOLDER S	SMALL BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
INSER GRAD ES	TURN ING INSET S	CBN/CD INSET S	TURN ING HOLDER S	SMALL BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
INSER GRAD ES	TURN ING INSET S	CBN/CD INSET S	TURN ING HOLDER S	SMALL BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

How to read this page B15

55° Diamond

Positive Insert with Hole

B
TURNING
INSERTS
POSITIVE

C

D

R

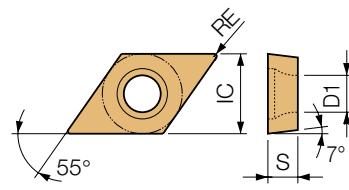
S

T

V

W

CERAMIC



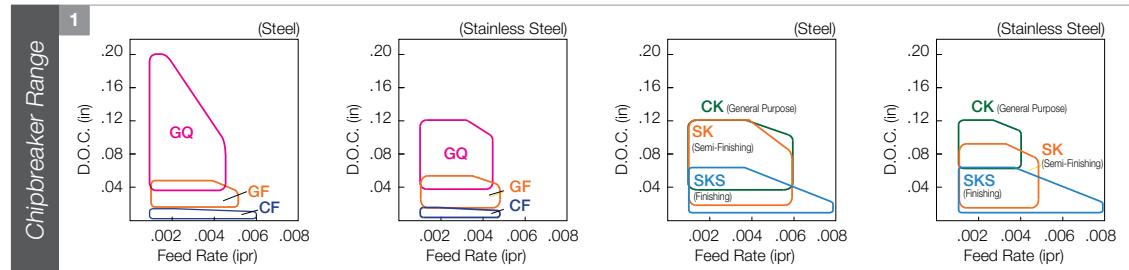
Part Number	Applicable Toolholder Page	Part Number	I	S	D1
DC..215	E27~E33, E46, E52, F55~F59	DC..215_	1/4	3/32	0.110
DC..325	E22, E27~E33, E46, E52, F55~F59, F89	DC..325_	3/8	5/32	0.173

	P	M	K	N	S	H	Free-Cutting Steel
	RE	TN610	TN820	TN60	CCX	Cermet	Carbon/Alloy Steel
Corner Radius (in)	RE	TN610	TN820	TN60	CCX	Cermet	Stainless Steel
Material							Gray Cast Iron
							Nodular Cast Iron
							Non-ferrous Metals
							HRSA
							Titanium Alloy
							Hard materials
Toolholder Page							Chipbreaker Range

Reference Table Above

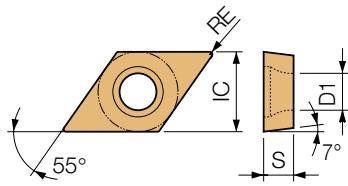
1

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



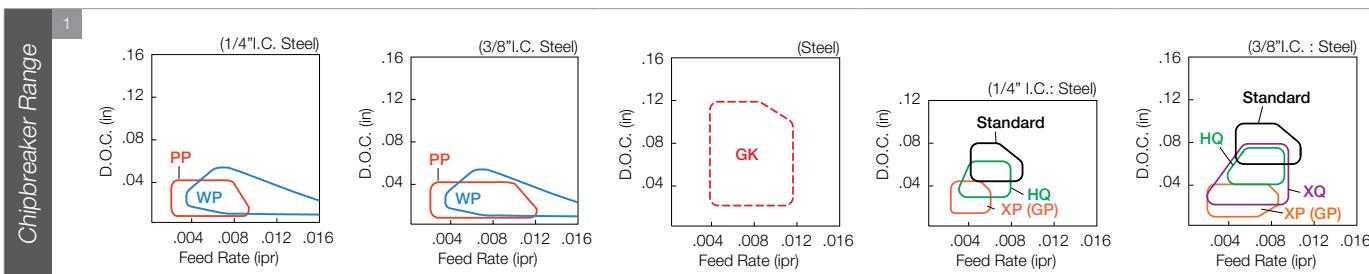
55° Diamond

Positive Insert with Hole



	Left-Hand Shown where Applicable	ANSI Part Number	ISO Part Number	Applicable Toolholder Page										(in)
				DC..215	E27-E33, E46, E52, F55-F59		DC..325	E22, E27-E33, E46, E52, F55-F59, F89		Part Number	IC	S	D1	
Finishing	DCGT	21502MP-CK	070201MP-CK	<0.004	TNG610	Cermet	RE	TNG20	CCX	CA510	CA515	CA515	CA515	Free-Cutting Steel
	DCGT	21505MP-CK	070202MP-CK	<0.008	TNG60	CVD/Cermet		PV710	PV720	CA505	CA505	CA505	CA505	Carbon/Alloy Steel
Finishing-Medium	DCGT	32502MP-CK	11T301MP-CK	<0.004	PV730	MEGA COAT Cermet		PV705	PV80	CA5525	CA5525	CA5525	CA5525	Stainless Steel
	DCGT	32505MP-CK	11T302MP-CK	<0.008						CA6515	CA6515	CA6515	CA6515	Gray Cast Iron
Finishing-Medium	DCGT	21502MF-GQ	070201MF-GQ	<0.004						CA310	CA315	CA320	CA4505	Nodular Cast Iron
	DCGT	21505MF-GQ	070202MF-GQ	<0.008						CA315	CA320	CA4515	CA4515	Non-ferrous Metals
	DCGT	2151MF-GQ	070204MF-GQ	<1/64						CA310	CA315	CA320	CA320	HRSA
Finishing-Medium	DCGT	32502MF-GQ	11T301MF-GQ	<0.004						CA315	CA320	CA4515	CA4515	Titanium Alloy
	DCGT	32505MF-GQ	11T302MF-GQ	<0.008						CA315	CA320	CA4515	CA4515	Hard materials
	DCGT	3251MF-GQ	11T304MF-GQ	<1/64										
Finishing	DCGT	21502MFP-GQ	070201MFP-GQ	<0.004										
	DCGT	21505MFP-GQ	070202MFP-GQ	<0.008										
	DCGT	2151MFP-GQ	070204MFP-GQ	<1/64										
Finishing	DCGT	32502MFP-GQ	11T301MFP-GQ	<0.004										
	DCGT	32505MFP-GQ	11T302MFP-GQ	<0.008										
	DCGT	3251MFP-GQ	11T304MFP-GQ	<1/64										
Finishing	DCMX	21505WP	070202WP	0.008	●●	●●	●●	●●●●●●●●●●●●			●△△	●△△	●△△	
	DCMX	2151WP	070204WP	1/64	●●	●●	●●	●●●●●●●●●●●●			●△△	●△△	●△△	
	DCMX	2152WP	070208WP	1/32	●●	●●	●●	●●●●●●●●●●●●			●△△	●△△	●△△	
Finishing	DCMX	32505WP	11T302WP	0.008	●●	●●	●●	●●●●●●●●●●●●			●△●	●△●	●△●	
	DCMX	3251WP	11T304WP	1/64	●●	●●	●●	●●●●●●●●●●●●			●△●	●△●	●△●	
	DCMX	3252WP	11T308WP	1/32	●●	●●	●●	●●●●●●●●●●●●			●△△	●△△	●△△	
Finishing	DCMX	2151R-WP	070204R-WP	1/64						●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
	DCMX	2151L-WP	070204L-WP	1/64						●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
Finishing	DCMX	3251R-WP	11T304R-WP	1/64						●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
	DCMX	3251L-WP	11T304L-WP	1/64						●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
Finishing	DCMT	21505PP	070202PP	0.008	●●●	●●●	●●●●●●	●●●●●●●●●●●●			●△●	●△●	●△●	
	DCMT	2151PP	070204PP	1/64	●●●	●●●	●●●●●●	●●●●●●●●●●●●			●△●	●△●	●△●	
Finishing	DCMT	32505PP	11T302PP	0.008	●●●	●●●	●●●●●●	●●●●●●●●●●●●			●△●	●△●	●△●	
	DCMT	3251PP	11T304PP	1/64	●●●	●●●	●●●●●●	●●●●●●●●●●●●			●△●	●△●	●△●	
	DCMT	3252PP	11T308PP	1/32	●●●	●●●	●●●●●●	●●●●●●●●●●●●			●△●	●△●	●△●	
Finishing	DCMT	21505GP	070202GP	0.008	●●●●●●	●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●			●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
	DCMT	2151GP	070204GP	1/64	●●●●●●	●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●			●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
	DCMT	3251GP	11T304GP	1/64	●●●●●●	●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●			●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	
	DCMT	3252GP	11T308GP	1/32	●●●●●●	●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●			●●●●●●●●●●●●	●●●●●●●●●●●●	●●●●●●●●●●●●	

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



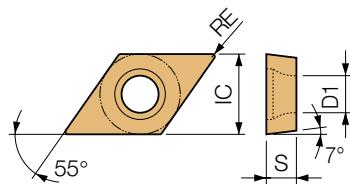
A INSERTS GRADES	B TURNING INSERTS	C CBN/CVD INSERTS	D TURNING HOLDERS	E SMALL TOOLS	F BORING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK-CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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How to read this page B15

55° Diamond

Positive Insert with Hole

B	TURNING INSERTS
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



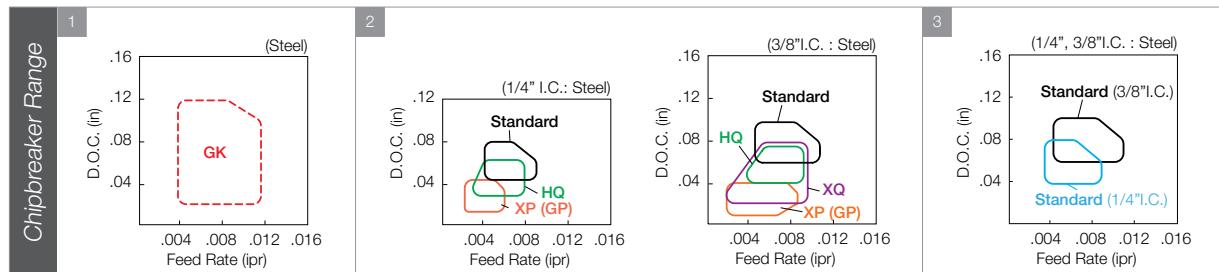
Part Number	Applicable Toolholder Page											
	DC..215 E27-E33, E46, E52, F55-F59											
	DC..325 E22, E27-E33, E46, E52, F55-F59, F89											

Part Number	IC	S	D1
DC..215	1/4	3/32	0.110
DC..325	3/8	5/32	0.173

	P	M	K	N	S	H	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
RE	●	●	●	○	○												
TN610	●	●	●	●	●			△	CA510	CA515	CA025P	CA530	CA4515	PR1725	PR1425	PR930	PR1005
TN820	●	●	●	●	●				CA515	CA515	CA525	CA310	CA315	PR1225	PR1225	PR1125	PR1025
TN60	●	●	●	●	●				CA515	CA515	CA525	CA320	CA4505	PR0155	PR0155	PDL010	PDL025
CCX	●	●	●	○	○				CA515	CA515	CA525	CA6525	CA4515	PR1305	PR1310	KW10	SW05
PV710	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1325	PR1325		
PV720	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
PV730	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
PV80	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
PV/D Cermet	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
MEGA COAT Cermet	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
CVD Coated Carbide	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
MEGACOAT / MEGACOAT NANO PVD Coated Carbide	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
PVD Coated Carbide	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
DLC	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
Carbide	●	●	●	●	●				CA515	CA515	CA525	CA6525	CA4515	PR1535	PR1535		
Toolholder Page																	
1																	
2																	
3																	

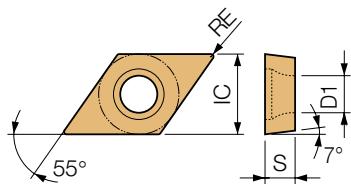
Reference Table Above

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



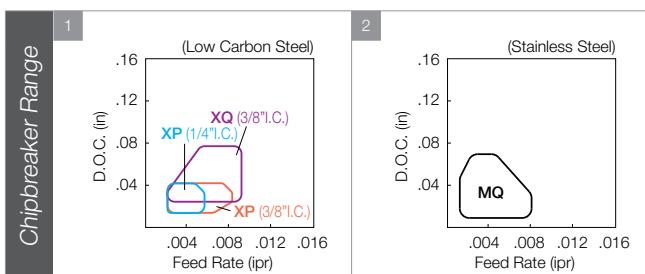
55° Diamond

Positive Insert with Hole



		ANSI	ISO
		Part Number	Part Number
Finishing		DCMT 2151XP	070204XP
		DCMT 32505XP	11T302XP
Low Carbon Steel		3251XP	11T304XP
		3252XP	11T308XP
Finishing-Medium		DCMT 3251XQ	11T304XQ
		3252XQ	11T308XQ
Finishing-Medium		DCMT 21505MQ	070202MQ
		2151MQ	070204MQ
Stainless Steel / HRSA		DCMT 32505MQ	11T302MQ
		3251MQ	11T304MQ
		3252MQ	11T308MQ

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

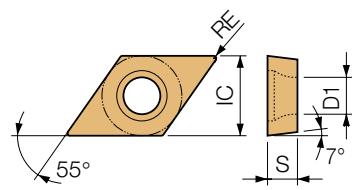


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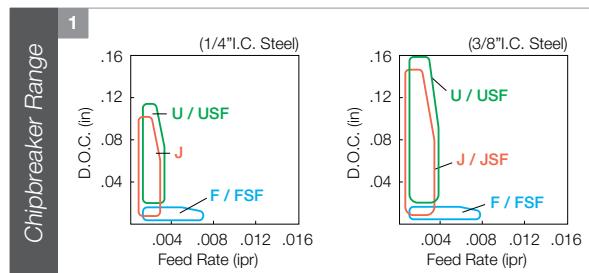
55° Diamond

Positive Insert with Hole

Part Number	Applicable Toolholder Page	Part Number	IC	S	D1
DC..215	<u>E27~E33, E46, E52, F55~F59</u>	DC_215_	1/4	3/32	0.110
DC..325	<u>E22, E27~E33, E46, E52, F55~F59, F89</u>	DC_325_	3/8	5/32	0.173



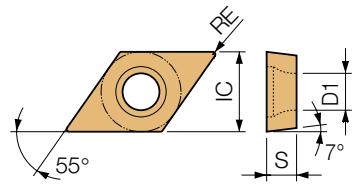
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

55° Diamond

Positive Insert with Hole



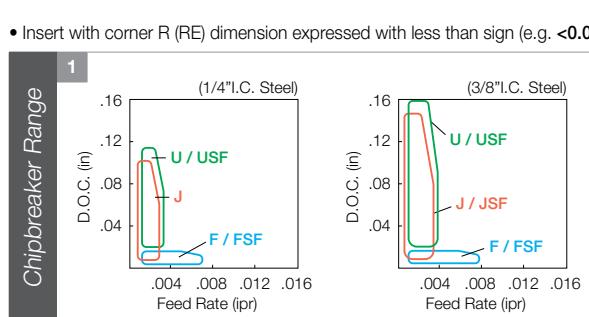
Part Number	Applicable Toolholder Page
DC..215	E27-E33, E46, E52, F55-F59
DC..325	E22, E27-E33, E46, E52, F55-F59, F89

(in)	Part Number	IC	S	D1
	DC_215_	1/4	3/32	0.110
	DC_325_	3/8	5/32	0.173

Left-Hand Shown where Applicable	ANSI Part Number	ISO Part Number	Corner Radius (in)	Toolholder Page																		
				RE	TNG610	TNG20	CCX	PV710	PV720	PV730	PV7005	PV80	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Chipbreaker Range				
	DCGT 21505R-FS	070202R-FS	0.008	●	CA510	CA515	CA515	CA025P	CA525	CA530	CA5605	CA5525	CA5525	CA4505	CA4515	PR1225	PR005S	PR015S	KW10	SW05		
	DCGT 21505L-FS	070202L-FS	0.008	●	●	●	△	●	●	●	CA5605	CA5535	CA6515	CA6525	CA310	CA315	PR1725	PR1705	PR1305	PR1310	PR1325	
	DCGT 2151R-FS	070204R-FS	1/64	●	●	●	●	●	●	●	CA5535	CA6515	CA6525	CA310	CA320	CA4505	CA4515	PR1425	PR1535	PR1005	PR1025	
	DCGT 2151L-FS	070204L-FS	1/64	●	●	●	●	●	●	●	CA6515	CA6525	CA310	CA315	CA320	CA4505	CA4515	PR1125	PR1125	PR1125	PR1125	
	DCGT 32505R-FS	11T302R-FS	0.008	●	●	●	●	●	●	●	CA310	CA315	CA320	CA320	CA320	CA320	CA320	CA320	PR1535	PR1005	PR1025	
	DCGT 32505L-FS	11T302L-FS	0.008	●	●	●	●	●	●	●	CA315	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	PR1535	PR1005	PR1025
	DCGT 3251R-FS	11T304R-FS	1/64	●	●	●	●	●	●	●	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320
	DCGT 3251L-FS	11T304L-FS	1/64	●	●	●	●	●	●	●	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320
	DCGT 3252L-FS	11T308L-FS	1/32	△	●	●	●	●	●	●	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320	CA320
Finishing-Medium	DCGT 21501R-F	0702003R-F	0.001	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	DCGT 21501L-F	0702003L-F	0.001	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21502R-F	070201R-F	0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21502L-F	070201L-F	0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21505R-F	070202R-F	0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21505L-F	070202L-F	0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 2151R-F	070204R-F	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 2151L-F	070204L-F	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32501R-F	11T3003R-F	0.001	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32501L-F	11T3003L-F	0.001	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32505R-F	11T302R-F	0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32505L-F	11T302L-F	0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 3251R-F	11T304R-F	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 3251L-F	11T304L-F	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 215013MR-F	0702005MR-F	<0.002	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 215013ML-F	0702005ML-F	<0.002	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21502MR-F	070201MR-F	<0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21502ML-F	070201ML-F	<0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21505MR-F	070202MR-F	<0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 21505ML-F	070202ML-F	<0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 2151MR-F	070204MR-F	<1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 2151ML-F	070204ML-F	<1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 325013MR-F	11T3005MR-F	<0.002	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 325013ML-F	11T3005ML-F	<0.002	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32502MR-F	11T301MR-F	<0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32502ML-F	11T301ML-F	<0.004	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32505MR-F	11T302MR-F	<0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 32505ML-F	11T302ML-F	<0.008	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 3251MR-F	11T304MR-F	<1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DCGT 3251ML-F	11T304ML-F	<1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sharp Edge																						

Reference Table Above

1



● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

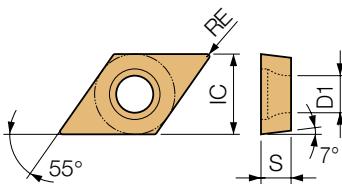
B67

A GRADERS	B TURNING INSERTS	C CBN/PCD INSERTS	D TURNING HOLDERS	E SMALL BORING	F GROOVING	G CUT-OFF	H THREADING	K DRILLING	M MILLING	N QUICK CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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55° Diamond

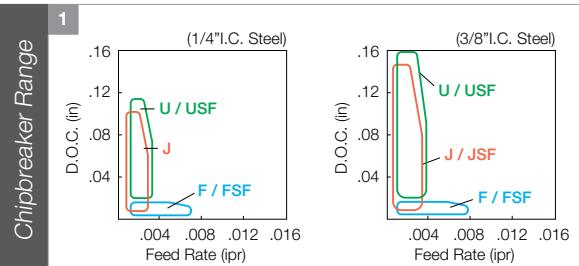
Positive Insert with Hole

Part Number	Applicable Toolholder Page	Part Number	IC	S	D1
DC..215	<u>E27~E33, E46, E52, F55~F59</u>	DC_215_	1/4	3/32	0.110
DC..325	<u>E22, E27~E33, E46, E52 F55~F59, F89</u>	DC_325_	3/8	5/32	0.173



Left-Hand Shown

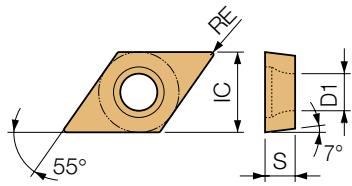
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



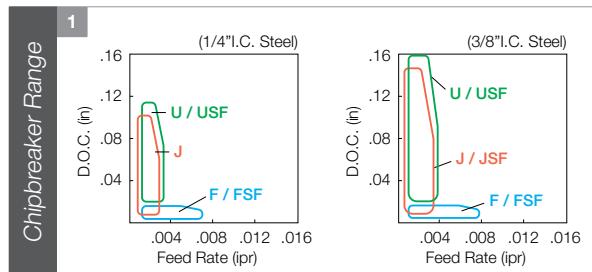
How to read this page B15

55° Diamond

Positive Insert with Hole



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

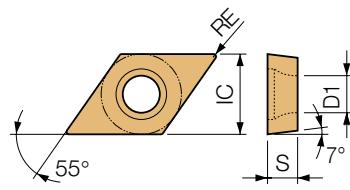
Inserts sold in 10 piece boxes.

How to read this page B15

55° Diamond

Positive Insert with Hole

B	Turning Inserts
C	
D	
R	
S	
T	
V	
W	
CERAMIC	

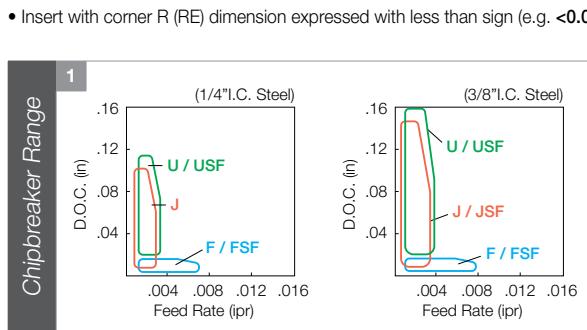


Part Number	Applicable Toolholder Page	Part Number	I	S	D1
DC..215	E27~E33, E46, E52, F55~F59	DC..215_	1/4	3/32	0.110
DC..325	E22, E27~E33, E46, E52, F55~F59, F89	DC..325_	3/8	5/32	0.173

		ANSI Part Number	ISO Part Number	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
Left-Hand Shown where Applicable		RE	TNG610	TNG20	TNG60	CCX	PV710	PV720	PV730	PV705	CA510	CA515	CA525	PR830	
Super Fine	DCET	32501FR-JSF	11T3003FR-JSF	0.001							CA505	CA515	CA525	PR1005	PR1026
		32501FL-JSF	11T3003FL-JSF	0.001							CA525	CA530	CA535	PR1125	PR1125
		32502FR-JSF	11T301FR-JSF	0.004							CA5505	CA5515	CA5525	PR1225	PR0155
		32502FL-JSF	11T301FL-JSF	0.004							CA5535	CA6515	CA6525	PR1305	PR1310
		32505FR-JSF	11T302FR-JSF	0.008							CA310	CA315	CA320	PR1325	PR1535
		32505FL-JSF	11T302FL-JSF	0.008							CA4505	CA4515	CA4525	PR1425	PR1705
Low Feed	DCET	325013MFR-JSF	11T3005MFR-JSF	<0.002											
		325013MFL-JSF	11T3005MFL-JSF	<0.002											
		32502MFR-JSF	11T301MFR-JSF	<0.004											
		32502MFL-JSF	11T301MFL-JSF	<0.004											
		32505MFR-JSF	11T302MFR-JSF	<0.008											
		32505MFL-JSF	11T302MFL-JSF	<0.008											
Sharp Edge / Precision	DCET	325013MFR-JSF	11T3005MFR-JSF	<0.008											
		325013MFL-JSF	11T3005MFL-JSF	<0.008											
Low Feed	DCET	215013MFR-J	0702005MFR-J	<0.002											
		21502MFR-J	070201MFR-J	<0.004											
		21502MFL-J	070201MFL-J	<0.004											
		21505MFR-J	070202MFR-J	<0.008											
		21505MFL-J	070202MFL-J	<0.008											
Sharp Edge / Precision	DCET	325013MFR-J	11T3005MFR-J	<0.002											
		32502MFR-J	11T301MFR-J	<0.004	●										
		32502MFL-J	11T301MFL-J	<0.004	●										
		32505MFR-J	11T302MFR-J	<0.008	●										
		32505MFL-J	11T302MFL-J	<0.008	●										
Low Feed	DCET	325013MFR-J	11T3005MFR-J	<0.002											
		32502MFR-J	11T301MFR-J	<0.004	●										
		32502MFL-J	11T301MFL-J	<0.004	●										
		32505MFR-J	11T302MFR-J	<0.008	●										
		32505MFL-J	11T302MFL-J	<0.008	●										
Sharp Edge	DCGT	32501FR-J	11T3003FR-J	0.001											
		32505FR-J	11T302FR-J	0.008		●									
		32505FL-J	11T302FL-J	0.008		●									
Low Feed	DCGT	325013MFR-J	11T3005MFR-J	<0.002											
		325013MFL-J	11T3005MFL-J	<0.002											
		32502MFR-J	11T301MFR-J	<0.004											
		32502MFL-J	11T301MFL-J	<0.004											
		32505MFR-J	11T302MFR-J	<0.008											
		32505MFL-J	11T302MFL-J	<0.008											
Sharp Edge	DCGT	3251MFR-J	11T304MFR-J	<1/64											
		3251MFL-J	11T304MFL-J	<1/64											

Reference Table Above

1



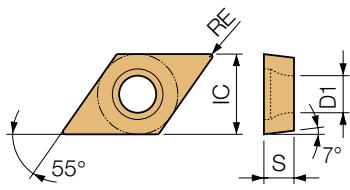
• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
 Contact your local Kyocera sales engineer to upgrade old products to new technology

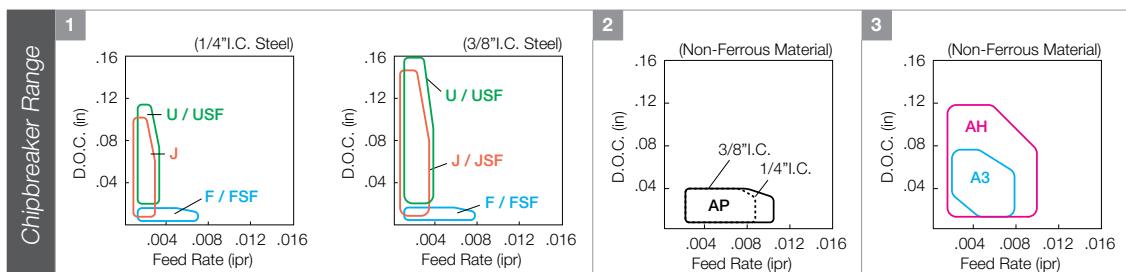
How to read this page B15

55° Diamond

Positive Insert with Hole



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

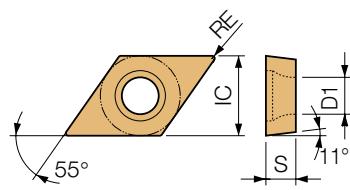
Inserts sold in 10 piece boxes.

How to read this page B15

55° Diamond

Positive Insert with Hole

B	TURNING INSERTS
C	
D	
R	
S	
T	
V	
W	
CERAMIC	

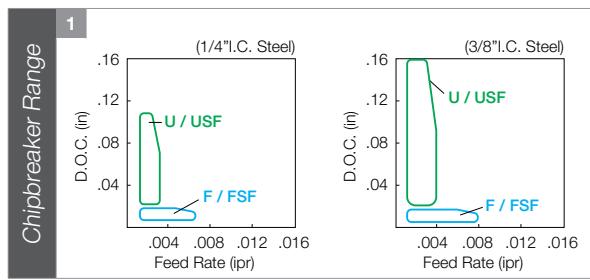


Left-Hand Shown where Applicable
ANSI Part Number **ISO Part Number**

			Corner Radius (in)	Cermet		MEGA COAT Cermet		CVD Coated Carbide		MEGACOAT / MEGACOAT NANO PVD Coated Carbide		PVD Coated Carbide		DLC Carbide		Toolholder Page	Chipbreaker Range
				RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	RE	
Finishing	Super Fine	DPET 21501R-FSF	0702003R-FSF	0.001													
		21502R-FSF	070201R-FSF	0.004													
		21505R-FSF	070202R-FSF	0.008													
		21505L-FSF	070202L-FSF	0.008													
		DPET 32501R-FSF	11T3003R-FSF	0.001													
	DPET	32502R-FSF	11T301R-FSF	0.004													
		32505R-FSF	11T302R-FSF	0.008													
		32505L-FSF	11T302L-FSF	0.008													
		DPET 21505MR-FSF	070202MR-FSF	<0.008													
	Sharp Edge / Precision	21505ML-FSF	070202ML-FSF	<0.008													
		DPET 325013MR-FSF	11T305MR-FSF	<0.002													
		32502MR-FSF	11T301MR-FSF	<0.004													
		32505MR-FSF	11T302MR-FSF	<0.008													
		DPET 21501FR-USF	0702003FR-USF	0.001													
Low Feed	Super Fine	21502FR-USF	070201FR-USF	0.004													
		21502FL-USF	070201FL-USF	0.004													
		21505FR-USF	070202FR-USF	0.008													
		21505FL-USF	070202FL-USF	0.008													
		DPET 32501FR-USF	11T3003FR-USF	0.001													
	DPET	32502FR-USF	11T301FR-USF	0.004													
		32502FL-USF	11T301FL-USF	0.004													
		32505FR-USF	11T302FR-USF	0.008													
		32505FL-USF	11T302FL-USF	0.008													
	DPET	215013MFR-USF	0702005MFR-USF	<0.002													
		21502MFR-USF	070201MFR-USF	<0.004													
		21505MFR-USF	070202MFR-USF	<0.008													
	DPET	325013MFR-USF	11T3005MFR-USF	<0.002													
		32502MFR-USF	11T301MFR-USF	<0.004													
		32505MFR-USF	11T302MFR-USF	<0.008													

E34

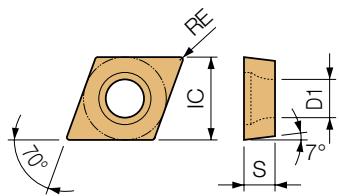
1



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

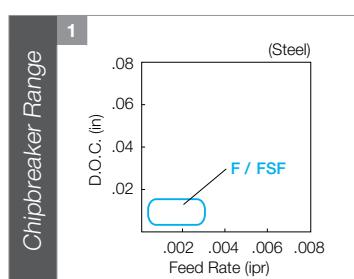
70° Diamond

Positive Insert with Hole



ANSI Part Number	ISO Part Number
Left-Hand Shown where Applicable	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



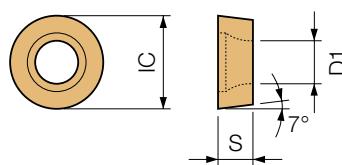
● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

Round

Positive Insert with Hole

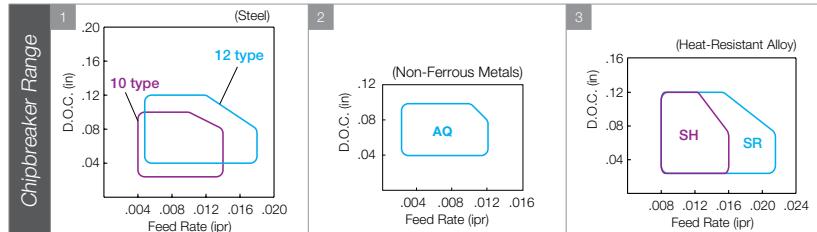


ANSI ISO
Part Part
Number Number

Medium		RCMX 1003M0	1003M0	-	●●	●●	●●●●	●●●●●	●●●●●●
		RCMX 1204M0	1204M0	-	●●	●●	●●●●	●●●●●	●●●●●●
Finishing-Medium		RCGX 1003M0-AQ	1003M0-AQ	-					
Non-ferrous Metals									
Finishing-Medium		RCMT 43SR	120400SR	-					
		RCMT 43SH	120400SH	-					

Part Number	IC	S	D1	(in)
RC_1003_	0.394	1/8	0.142	
RC_1204	0.472	3/16	0.165	

Part Number	IC	S	D1
RCMT43..	0.500	3/16	0.173

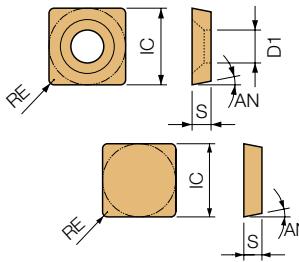


*Chipbreaker shape of RCMX... varies by grade (cermet / PVD coated cermet / CVD coated carbide)

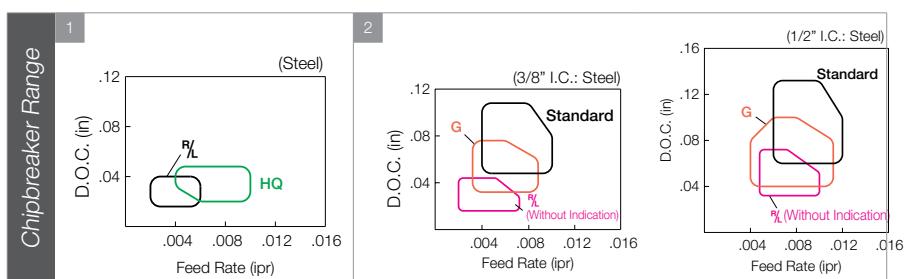
How to read this page B15

90° Square

Positive Insert



ANSI ISO
Part Number Part Number



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

How to read this page B15

Part Number	IC	S	D1
TB_121_	5/32	1/16	0.091

60° Triangle

Positive Insert with Hole

B
TURNING
INSERTS

POSITIVE

C

D

R

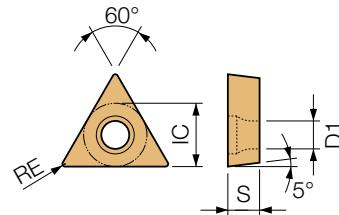
S

T

V

W

CERAMIC

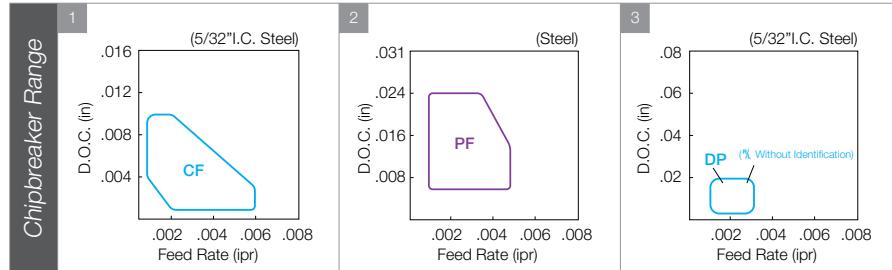

ANSI **ISO**
 Part Number Part Number

		Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide			MEGACOAT / MEGACOAT NANO PVD Coated Carbide		PVD Coated Carbide	DLC	Carbide	Toolholder	Chipbreaker Range
Left-Hand Shown where Applicable		RE	TNG610	TNG620	TN60	CCX	PV710	PV720	PV730	PV7005	PV80	CA510	CA515	CA525P	CA530	
Minute D.O.C.	TBGT	12105CF	060102CF	0.008								CA505	CA505	CA515	PR1705	
Sharp Edge	TBGT	12102M-CF	060101M-CF	<0.004								CA505	CA515	CA525	PR1725	
		12105M-CF	060102M-CF	<0.008								CA515	CA525	CA530	PR1225	
Minute D.O.C.	TBGT	12102MP-CF	060101MP-CF	<0.004								CA515	CA525	CA530	PR005S	
Sharp Edge / Polished		12105MP-CF	060102MP-CF	<0.008								CA515	CA525	CA530	PR105S	
Finishing	TBGT	12102MFP-PF	060101MFP-PF	<0.004								CA515	CA525	CA530	PR1305	
Sharp Edge / Polished		12105MFP-PF	060102MFP-PF	<0.008								CA515	CA525	CA530	PR1310	
	TBGT	1211MFP-PF	060104MFP-PF	<1/64								CA515	CA525	CA530	PR1325	
Finishing	TBMT	12105DP	060102DP	0.008	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530	PR1535	
		1211DP	060104DP	1/64	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530	PR805	
Finishing	TBET	121013MR	0601005MR	<0.002								CA515	CA525	CA530	PR1005	
		121013ML	0601005ML	<0.002								CA515	CA525	CA530	PR1025	
	TBGT	12102MR	0601011MR	<0.004								CA515	CA525	CA530	PR1125	
		12102ML	0601011ML	<0.004								CA515	CA525	CA530	PDL010	
	TBGT	12105MR	060102MR	<0.008								CA515	CA525	CA530	PDL025	
		12105ML	060102ML	<0.008								CA515	CA525	CA530	KW10	
	TBGT	1211MR	060104MR	<1/64								CA515	CA525	CA530	SW05	
		1211ML	060104ML	<1/64								CA515	CA525	CA530		
Finishing	TBGT	12101L	0601003L	0.001								CA515	CA525	CA530		
		12102R	060101R	0.004								CA515	CA525	CA530		
		12102L	060101L	0.004								CA515	CA525	CA530		
	TBGT	12105R	060102R	0.008	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530		
		12105L	060102L	0.008	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530		
	TBGT	1211R	060104R	1/64	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530		
		1211L	060104L	1/64	● ● ● ● ● ● ●		● ● ● ● ● ● ●	● ● ● ● ● ● ●	● ● ● ● ● ● ●			CA515	CA525	CA530		
	TBGT	12102ML	060101ML	<0.004								CA515	CA525	CA530		
		12105MR	060102MR	<0.008								CA515	CA525	CA530		
		12105ML	060102ML	<0.008								CA515	CA525	CA530		
	TBGT	1211MR	060104MR	<1/64								CA515	CA525	CA530		
		1211ML	060104ML	<1/64								CA515	CA525	CA530		
Cast Iron	TBGW	12105	060102	0.008		●						CA515	CA525	CA530		
		1211	060104	1/64		●						CA515	CA525	CA530		

F30
F63
F65
F67

3

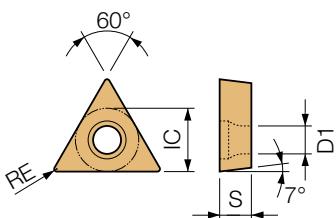
• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)
 Contact your local Kyocera sales engineer to upgrade old products to new technology

60° Triangle

Positive Insert with Hole



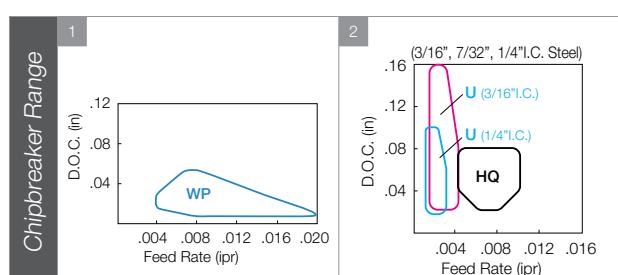
Left-Hand Shown
where Applicable

Left-Hand Shown where Applicable		ANSI Part Number	ISO Part Number
Finishing		TCMX 18151WP	090204WP
		TCMX 2151WP	110204WP
		TCMT 181505HQ	090202HQ
		18151HQ	090204HQ
		TCMT 21505HQ	110202HQ
		2151HQ	110204HQ
		2152HQ	110208HQ
		TCMT 3251HQ	16T304HQ
		3252HQ	16T308HQ
		3253HQ	16T312HQ
Finishing-Medium		TCET 151501FR-USF	0802003FR-USF
		151501FL-USF	0802003FL-USF
		151502FR-USF	080201FR-USF
		151505FR-USF	080202FR-USF
		TCET 2201FR-USF	1103003FR-USF
		2201FL-USF	1103003FL-USF
		2202FR-USF	110301FR-USF
		2202FL-USF	110301FL-USF
		2205FR-USF	110302FR-USF
		2205FL-USF	110302FL-USF
Low Feed		TCET 22013MFR-USF	1103005MFR-USF
		2202MFR-USF	110301MFR-USF
		2205MFR-USF	110302MFR-USF
	Sharp Edge / Precision		

How to read this page ➔ B15

Part Number	IC	S	D1	(in)
TC_1515_	3/16	3/32	0.091	
TC_1815_	7/32	3/32	0.098	

Part Number	IC	S	D1
TC_215_	1/4	3/32	0.110
TC_325_	3/8	5/32	0.173



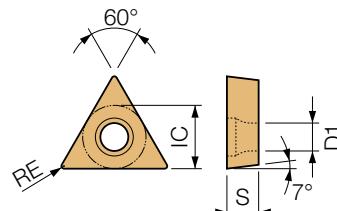
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

How to read this page B15

60° Triangle

Positive Insert with Hole

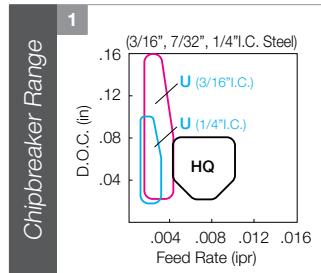
B	TURNING INSERTS
POSITIVE	
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



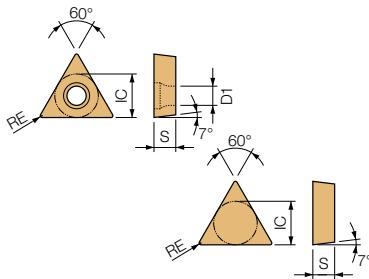
Left-Hand Shown where Applicable

		ANSI Part Number	ISO Part Number	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC Carbide	Toolholder Page	Chipbreaker Range	
		TCGT 151502FR-U	080201FR-U	0.004	●	TN610	TN820	TN60	CCX	PV710	PV720	PV730	PV705	PR900	Free-Cutting Steel
		151502FL-U	080201FL-U	0.004	△				PV80	CA510	CA515	CA525	CA530	PR1005	Carbon/Alloy Steel
		151505FR-U	080202FR-U	0.008	●				CA025P	CA515	CA525	CA535	CA545	PR1025	Stainless Steel
		151505FL-U	080202FL-U	0.008	●				CA5505	CA5515	CA5525	CA5535	CA6515	PR1125	Gray Cast Iron
		TCGT 2201FR-U	1103003FR-U	0.001					CA6525	CA6535	CA6545	CA6555	CA7515	PR1155	Nodular Cast Iron
		2202FR-U	110301FR-U	0.004	●				CA8510	CA8515	CA8525	CA8535	CA9515	PR1225	Non-ferrous Metals
		2202FL-U	110301FL-U	0.004	△				CA8530	CA8535	CA8540	CA8550	CA9535	PR1305	HRSA
		2205FR-U	110302FR-U	0.008	●				CA9510	CA9515	CA9520	CA9530	CA9540	PR1310	Titanium Alloy
		2205FL-U	110302FL-U	0.008	●				CA9535	CA9540	CA9550	CA9560	CA9570	PR1325	Hard materials
		TCGT 151502MFR-U	080201MFR-U	<0.004										KW10	
		151505MFR-U	080202MFR-U	<0.008										SW05	
		151505MFL-U	080202MFL-U	<0.008											
		TCGT 22013MFR-U	1103005MFR-U	<0.002											
		22013MFL-U	1103005MFL-U	<0.002											
		2202MFR-U	110301MFR-U	<0.004											
		2202MFL-U	110301MFL-U	<0.004											
		2205MFR-U	110302MFR-U	<0.008											
		2205MFL-U	110302MFL-U	<0.008											
		221MFR-U	110304MFR-U	<1/64											
		221MFL-U	110304MFL-U	<1/64											
		TCGT 151505SER-U	080202ER-U	0.008	●										
		151505EL-U	080202EL-U	0.008	●										
		TCGT 2202ER-U	110301ER-U	0.004	●										
		2205ER-U	110302ER-U	0.008	●										
		2205EL-U	110302EL-U	0.008	●										
		221ER-U	110304ER-U	1/64	●										
		221EL-U	110304EL-U	1/64	●										
		TCGT 151505MER-U	080202MER-U	<0.008							●				
		TCGT 2205MER-U	110302MER-U	<0.008							●				
		2205MEL-U	110302MEL-U	<0.008							●				
		221MER-U	110304MER-U	<1/64							●				

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



60° Triangle Positive Insert

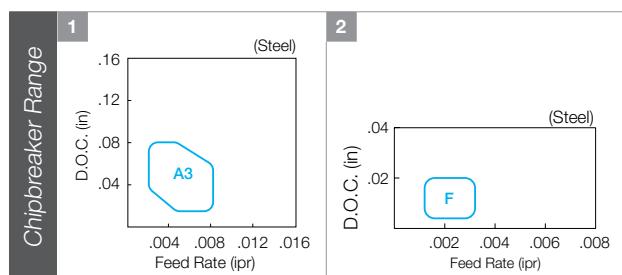


Left-Hand Shown where Applicable

	ANSI Part Number	ISO Part Number	Finishing	
TCGT	21505R	110202R	0.008	
	21505L	110202L	0.008	
	2151R	110204R	1/64	
	2151L	110204L	1/64	
Finishing Medium Sharp Edge / Non-ferrous Metals	TCGT	2205R-A3	110302R-A3	0.008
		2205L-A3	110302L-A3	0.008
		221R-A3	110304R-A3	1/64
		221L-A3	110304L-A3	1/64
		222R-A3	110308R-A3	1/32
		222L-A3	110308L-A3	1/32
Cast Iron Without Chipbreaker	TCGW	151502	080201	0.004
		151505	080202	0.008
	TCGW	2202	110301	0.004
		2205	110302	0.008
Finishing Sharp Edge	TCGR	12105L-F	060102L-F	0.008
		1211L-F	060104L-F	1/64
				△
Cast Iron Without Chipbreaker	TCG	1211	060104	1/64
				△

	P	M	K	N	S	H	RE	Cermet	CVD Cermet	MEGA COAT Cermet	PV/D Cermet	Corner Radius (in)	Part Number	IC	S	D1	(in)	

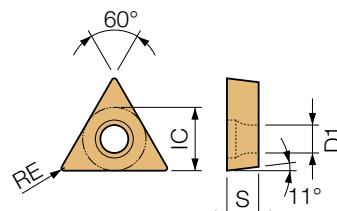
A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX	
GRIDES	CBN/PCD	TURNING	SMALL	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX	



How to read this page ➔ B15

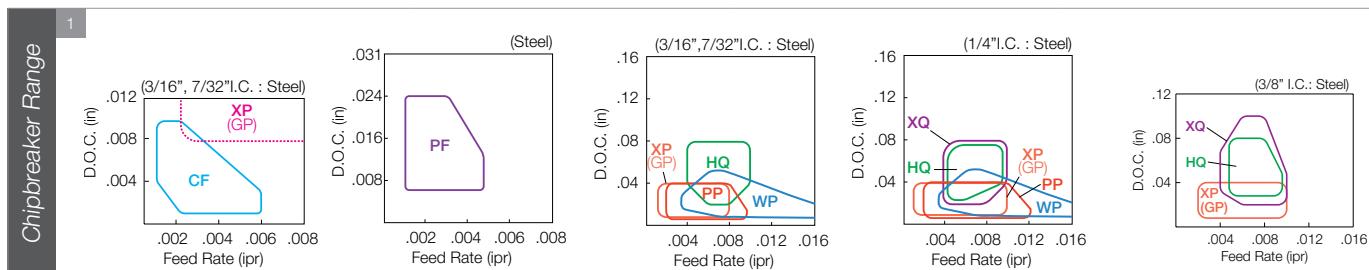
60° Triangle

Positive Insert with Hole



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

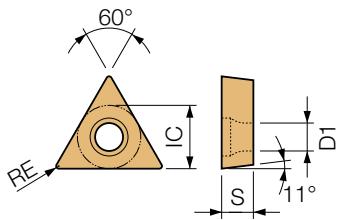
Part Number	Applicable Toolholder Page
TP_1515_	E35 , F59 , F63 , F65 , F67
TP_1815_	E35 , F28 , F63 , F65 , F67
TP_22_	E35 , F63 , F65 , F66
TP_32_	F63 , F66



How to read this page B15

60° Triangle

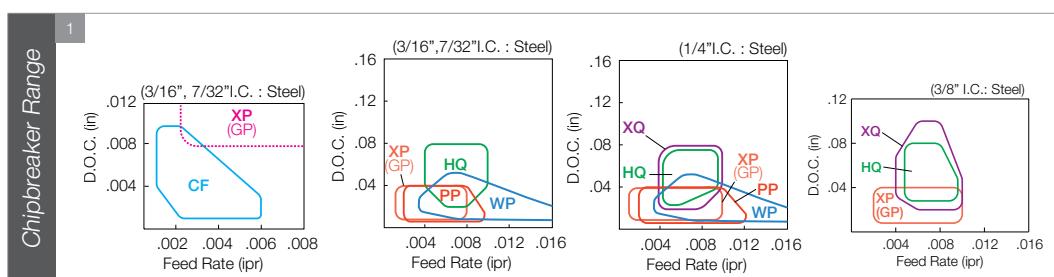
Positive Insert with Hole



Left-Hand Shown
where Applicable

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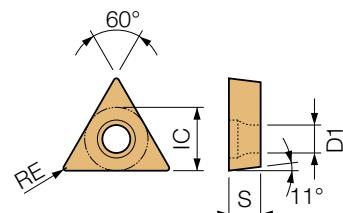
Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32	F63, F66

How to read this page B15

60° Triangle

Positive Insert with Hole

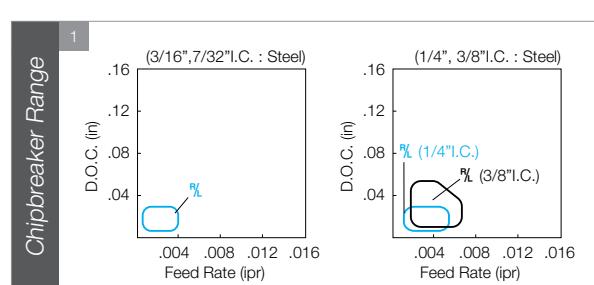
B	TURNING INSERTS
POSITIVE	
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



Left-Hand Shown where Applicable
ANSI Part Number **ISO Part Number**

Finishing	TPGH	151502R	080201R	0.004	TN610	TN820	CCX	Cermets	MEGA COAT Cermet	PV7005	PV80	PV/D Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Reference Table Below
		151502L	080201L	0.004															
	TPGH	151505R	080202R	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		151505L	080202L	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	15151R	080204R	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		15151L	080204L	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	181502R	090201R	0.004															
		181502L	090201L	0.004															
	TPGH	181505R	090202R	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		181505L	090202L	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	18151R	090204R	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		18151L	090204L	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	21505R	110202R	0.008															
		21505L	110202L	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	2151R	110204R	1/64		●●●													
		2151L	110204L	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	2205R	110302R	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		2205L	110302L	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	221R	110304R	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		221L	110304L	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	222R	110308R	1/32	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		222L	110308L	1/32	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	3205R	160302R	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		3205L	160302L	0.008	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	321R	160304R	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
		321L	160304L	1/64	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	
	TPGH	322R	160308R	1/32															
		322L	160308L	1/32	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	●●●	

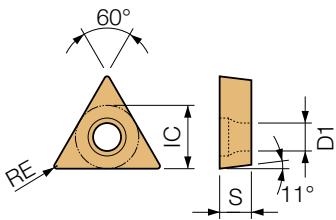
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32_	F63, F66

How to read this page  B15**60° Triangle**

Positive Insert with Hole



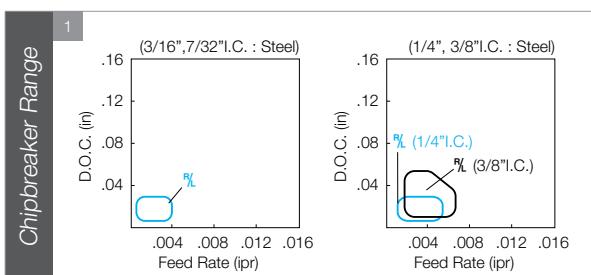
	(in)				(in)			
	Part Number	IC	S	D1	Part Number	IC	S	D1
TP_1515_		3/16	3/32	0.091	TP_22_	1/4	1/8	0.130
TP_1815_		7/32	3/32	0.118	TP_32_	3/8	1/8	0.177
TP_215_		1/4	3/32	0.138				

Left-Hand Shown where Applicable

ANSI ISO
Part Number Part Number

Finishing	TPGH	151502ML	080201ML	<0.004	TNG610	TNG20	CCX	Cermet	Mega Coat Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Toolholder Page	Chipbreaker Range
		151505MR	080202MR	<0.008											
TPGH	151505ML	080202ML	<0.008												
	15151MR	080204MR	<1/64												
TPGH	15151ML	080204ML	<1/64												
	181502ML	090201ML	<0.004												
TPGH	181505MR	090202MR	<0.008												
	181505ML	090202ML	<0.008												
TPGH	18151MR	090204MR	<1/64												
	18151ML	090204ML	<1/64												
TPGH	21505ML	110202ML	<0.008												
	2151ML	110204ML	<1/64												
TPGH	2205MR	110302MR	<0.008												
	2205ML	110302ML	<0.008												
TPGH	221MR	110304MR	<1/64												
	221ML	110304ML	<1/64												
TPGH	222ML	110308ML	<1/32												
	3205ML	160302ML	<0.008												
TPGH	321MR	160304MR	<1/64												
	321ML	160304ML	<1/64												
TPGH	322ML	160308ML	<1/32												

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32_	F63, F66

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

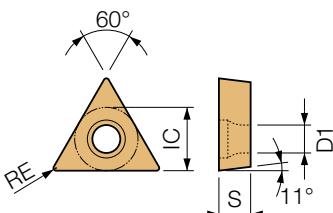
Inserts sold in 10 piece boxes.

INDEX	TECHNICAL	R
SPARE PARTS	QUICK CHANGE TOOLING	P
TECHNICAL	MILLING	N
INDEX	DRILLING	M
INDEX	GROOVING	K
INDEX	CUT-OFF	J
INDEX	THREADING	H
INDEX	BORING	F
INDEX	SMALL TOOLS	E
INDEX	TOOLHOLDERS	D
INDEX	TURNING	C
INDEX	INSERTS	B
INDEX	GRADE'S	A

How to read this page B15

60° Triangle

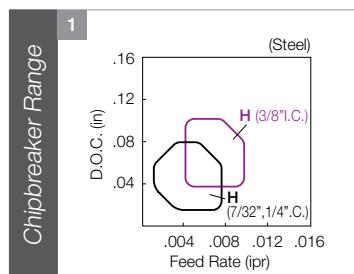
Positive Insert with Hole



Left-Hand Shown
where Applicable

ANSI ISO
Part Number Part Number

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32	F63, F66

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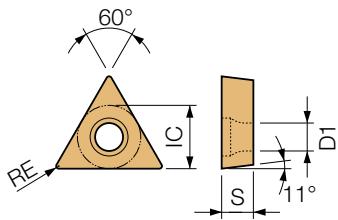
Inserts sold in 10 piece boxes.

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology.

How to read this page B15

60° Triangle

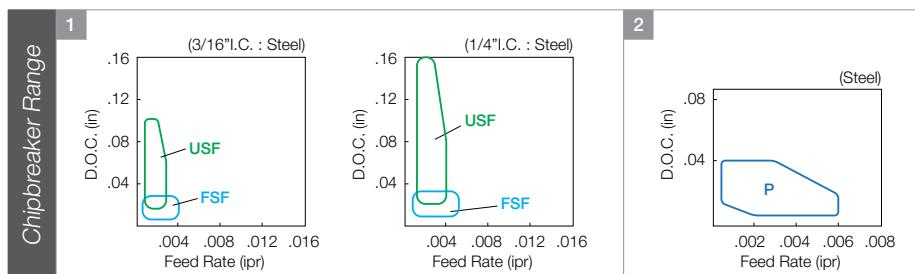
Positive Insert with Hole



Left-Hand Shown
where Applicable

Finishing		TP	405	110202
	Without Chipbreaker		41	110204
Finishing		Super Fine	TPET	151501L-FSF 0802003L-FSF
			TPET	151502R-FSF 080201R-FSF
			TPET	151502L-FSF 080201L-FSF
			TPET	151505R-FSF 080202R-FSF
			TPET	151505L-FSF 080202L-FSF
Finishing		Sharp Edge / Precision	TPET	2201R-FSF 1103003R-FSF
			TPET	2201L-FSF 1103003L-FSF
			TPET	2202R-FSF 110301R-FSF
			TPET	2202L-FSF 110301L-FSF
			TPET	2205R-FSF 110302R-FSF
			TPET	2205L-FSF 110302L-FSF
Finishing		Sharp Edge	TPEH	151505ML-FSF 0802005ML-FSF
			TPEH	22013ML-FSF 1103005ML-FSF
			TPEH	2202MR-FSF 110301MR-FSF
			TPEH	2202ML-FSF 110301ML-FSF
			TPEH	2205MR-FSF 110302MR-FSF
			TPEH	2205ML-FSF 110302ML-FSF
Finishing		Sharp Edge	TPEH	151502MR-P 080201MR-P
			TPEH	151502ML-P 080201ML-P
			TPEH	151505MR-P 080202MR-P
			TPEH	151505ML-P 080202ML-P
			TPEH	15151MR-P 080204MR-P
			TPEH	15151ML-P 080204ML-P
Finishing		Sharp Edge	TPEH	181502MR-P 090201MR-P
			TPEH	181502ML-P 090201ML-P
			TPEH	181505MR-P 090202MR-P
			TPEH	181505ML-P 090202ML-P
			TPEH	18151MR-P 090204MR-P
			TPEH	18151ML-P 090204ML-P
Finishing		Sharp Edge	TPEH	2202MR-P 110301MR-P
			TPEH	2202ML-P 110301ML-P
			TPEH	2205MR-P 110302MR-P
			TPEH	2205ML-P 110302ML-P
			TPEH	221MR-P 110304MR-P
			TPEH	221ML-P 110304ML-P

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

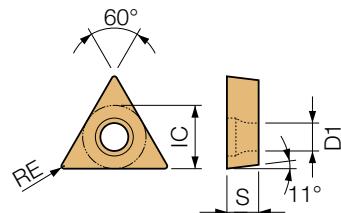


Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32	F63, F66

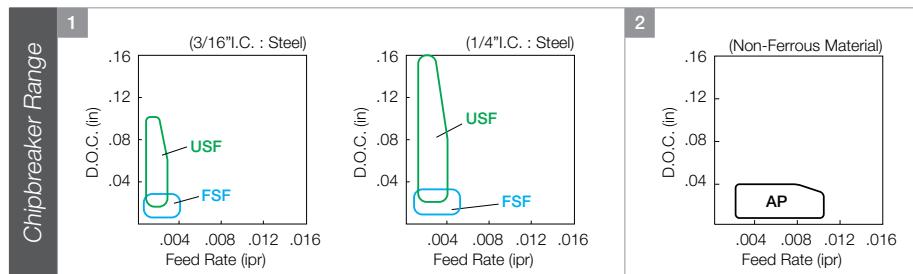
How to read this page ➔ B15

60° Triangle

Positive Insert with Hole



- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



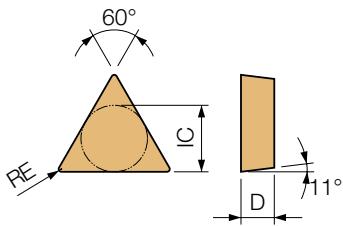
Part Number	Applicable Toolholder Page
TP_1515_	E35, F59, F63, F65, F67
TP_1815_	E35, F28, F63, F65, F67
TP_22_	E35, F63, F65, F66
TP_32	F63, F66

TURNING INSERTS (POSITIVE)

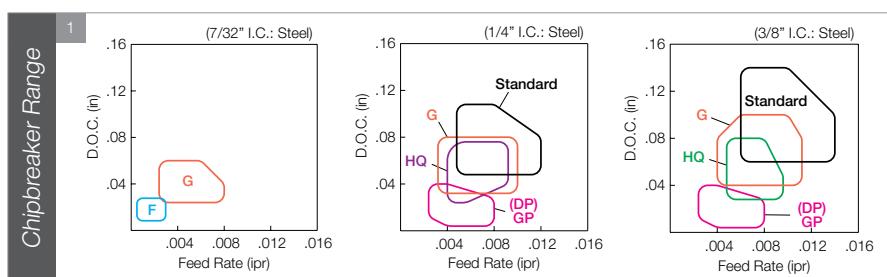
How to read this page B15

60° Triangle

Positive Insert without Hole



		ANSI Part Number	ISO Part Number
Finishing		TPMR 221DP	110304DP
		222DP	110308DP
		TPMR 321DP	160304DP
		322DP	160308DP
Finishing		TPMR 221GP	110304GP
		TPMR 321GP	160304GP
		TPMR 221HQ	110304HQ
		222HQ	110308HQ
Finishing-Medium		TPMR 321HQ	160304HQ
		322HQ	160308HQ
		TPMR 181505G	090202G
		18151G	090204G
Medium		TPMR 221G	110304G
		222G	110308G
		TPMR 321G	160304G
		322G	160308G
Medium		TPMR 221	110304
		222	110308
		TPMR 321	160304
		322	160308
Finishing		TPGR 181505L-F	090202L-F
		18151R-F	090204R-F
		18151L-F	090204L-F



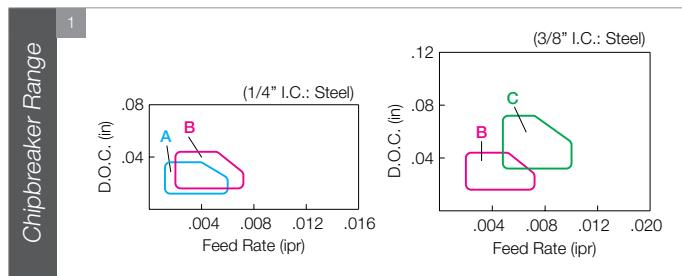
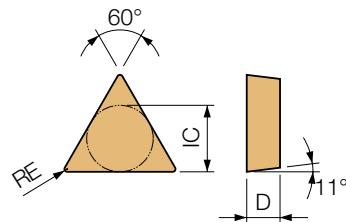
● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology.

Inserts sold in 10 piece boxes.

 KYOCERA

60° Triangle

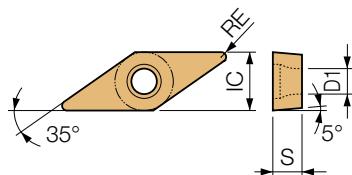
Positive Insert without Hole



How to read this page B15

35° Diamond

Positive Insert with Hole



Part Number	Applicable Toolholder Page
VB..22_	E36-E39, E47, E52, F68-F75
VB..33_	E38-E39, F68-F75

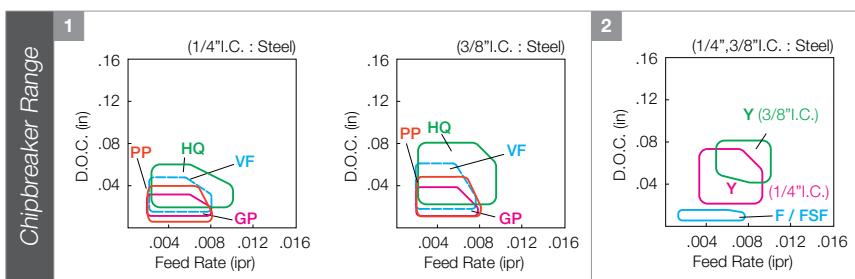
Part Number	IC	S	D1	(in)
VB_22_	1/4	1/8	0.110	
VB_33_	3/8	3/16	0.173	

P	M	K	N	S	H	Corner Radius (in)	Cermet	MEGA COAT Cermet	CVD Coated Carbide	PRD Cermet	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
RE	TNG610 TNG20 TN60	CCX PV710 PV720 PV730	PV7005 PV90	CA510 CA515 CA025P CA525 CA530	CA5505 CA5515 CA5535 CA6515 CA6525	CA310 CA315 CA320	CA4515	PR1725 PR1428 PR1225 PR015S	PR1705 PR1305 PR1310 PR1325	PR1535 PR830 PR1005 PR1025	PR1125 PD1010 PD1025	KW10 SW05				

Left-Hand Shown where Applicable
ANSI Part Number **ISO Part Number**

Finishing	VBMT 2205PP	110302PP	0.008	●	TNG610	RE	Cermet	MEGA COAT Cermet	CVD Coated Carbide	PRD Cermet	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
	221PP	110304PP	1/64	●	TNG20											
	222PP	110308PP	1/32	●	TN60											
	VBMT 331PP	160404PP	1/64	●												
	332PP	160408PP	1/32	●												
	333PP	160412PP	3/64	●												
Finishing	VBMT 221GP	110304GP	1/64	●												
	VBMT 331GP	160404GP	1/64	●												
	332GP	160408GP	1/32	●												
Finishing	VBMT 2205VF	110302VF	0.008	●												
	221VF	110304VF	1/64	●												
	222VF	110308VF	1/32	●												
Finishing	VBMT 3305VF	160402VF	0.008	●												
	331VF	160404VF	1/64	●												
	332VF	160408VF	1/32	●												
	333VF	160412VF	3/64	●												
Finishing-Medium	VBMT 221HQ	110304HQ	1/64	●												
	222HQ	110308HQ	1/32	●												
	VBMT 331HQ	160404HQ	1/64	●												
	332HQ	160408HQ	1/32	●												
	333HQ	160412HQ	3/64	●												
Finishing	VBET 2201R-FSF	110303R-FSF	0.001	●												
	2201L-FSF	110303L-FSF	0.001													
	2202R-FSF	110301R-FSF	0.004	●												
	2202L-FSF	110301L-FSF	0.004	●												
	2205R-FSF	110302R-FSF	0.008	●												
	2205L-FSF	110302L-FSF	0.008	●												
Finishing	VBET 22013MR-FSF	1103005MR-FSF	<0.002													
	22013ML-FSF	1103005ML-FSF	<0.002													
	2202MR-FSF	110301MR-FSF	<0.004													
	2202ML-FSF	110301ML-FSF	<0.004													
	2205MR-FSF	110302MR-FSF	<0.008													
	2205ML-FSF	110302ML-FSF	<0.008													
Sharp Edge / Precision																

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



Reference Table Above

1	2
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A INSERTS GRADES	B TURNING INSERTS	C CNPCD INSERTS	D TURNING HOLDERS	E SMALL TOOLS	F BORING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK-CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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35° Diamond

Positive Insert with Hole

B
TURNING
INSERTS
POSITIVE

C

D

R

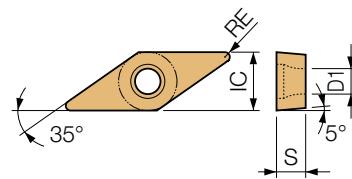
S

T

V

W

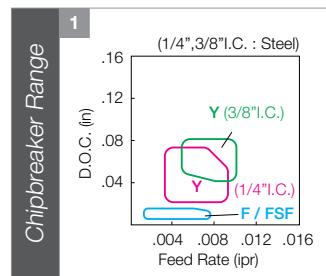
CERAMIC



Part Number	Applicable Toolholder Page	Part Number	I	S	D1
VB..22_	E36-E39, E47, E52, F68-F75	VB..22_	1/4	1/8	0.110
VB..33_	E38-E39, F68-F75	VB..33_	3/8	3/16	0.173

		ANSI Part Number	ISO Part Number	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
	Left-Hand Shown where Applicable	VBET	22013MR-F	<0.002	TNG610	TNG20	CCX	PV710	PV720	PV730	CA510	CA515	CA525	PR1055	PR1125
			22013ML-F	<0.002		TNG60		PV790	PV705		CA525P	CA530	CA5505	PR1225	PR1025
	Finishing		2202MR-F	<0.004	●		●				CA5515	CA5525	CA5535	PR1725	PR1005
			2202ML-F	<0.004	●		●				CA6515	CA6525	CA6535	PR1705	PR1305
			2205MR-F	<0.008	●●		●●				CA310	CA315	CA320	PR1425	PR1325
			2205ML-F	<0.008	●●		●●				CA4515	CA4525	CA4535	PR1535	PR1530
	Sharp Edge		VBGT	2202FN-Z	0.004		●							PR830	PR1125
				2205FN-Z	0.008		●							SW05	PDLO10
				221FN-Z	1/64		●								-
	Medium		VBGT	2201R-F	0.001										1
				2201L-F	0.001										
	Finishing			2202R-F	0.004	●●		●●							
				2202L-F	0.004	●		●							
				2205R-F	0.008	●●		●●							
				2205L-F	0.008	●									
	Sharp Edge		VBGT	22013MR-F	<0.002										
				22013ML-F	<0.002										
				2202MR-F	<0.004										
				2202ML-F	<0.004										
				2205MR-F	<0.008										
				2205ML-F	<0.008										
	Sharp Edge		VBET	22013MR-Y	<0.002										
				22013ML-Y	<0.002										
				2202MR-Y	<0.004										
				2202ML-Y	<0.004										
				2205MR-Y	<0.008	●●		●●							
				2205ML-Y	<0.008	●●		●●							
	Finishing-Medium			221MR-Y	1/64	●●		●●							
				221ML-Y	1/64	●●		●●							

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

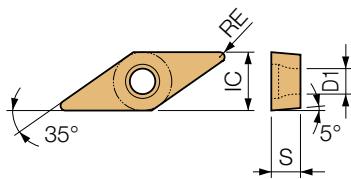


Reference Table Above

1

35° Diamond

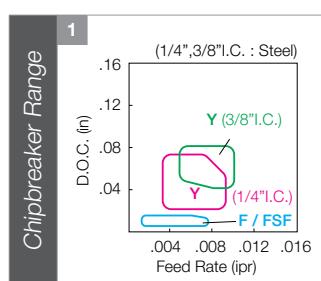
Positive Insert with Hole



	Applicable Toolholder Page										(in)				
Part Number	VB..22_	E36-E39, E47, E52, F68-F75										VB..22_	IC	S	D1
	VB..33_	E38-E39, F68-F75										VB..33_	1/4	1/8	0.110
P		●	●	●	●	●	●	●	●	●	●				
M															
K															
N															
S															
H															
Corner Radius (in)		RE	Cermet	CVD Cermet	MEGA COAT Cermet	PV710	PV720	PV730	PV705	PV90	PVD Cermet				
		TNG610	TNG20	CCX											
		CA510	CA515	CA525	CA530	CA5505	CA5525	CA5535	CA6515	CA6525	CA4515	CA4520	PR1225	PR1535	
		CA025P	CA025	CA525	CA530	CA5505	CA5525	CA5535	CA6515	CA6525	CA4515	CA4520	PR005S	PR015S	
													PR1705	PR1725	
													PR1428	PR1325	
													PR1225	PR1535	
													PR830	PR1005	
													PR1025	PR1125	
													PDL010	PDL025	
													KW10	SW05	
													Toolholder Page	Chipbreaker Range	

Finishing-Medium	ANSI Part Number	ISO Part Number	Corner Radius (in)	Reference Table Above											
				RE	TNG610	TNG20	CCX	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide
VBGT	2201R-Y	1103003R-Y	0.001												
	2201L-Y	1103003L-Y	0.001												
	2202R-Y	110301R-Y	0.004	●	●	●	●								
	2202L-Y	110301L-Y	0.004					●							
	2205R-Y	110302R-Y	0.008	●	●	●	●								
	2205L-Y	110302L-Y	0.008	●	●	●	●								
	221R-Y	110304R-Y	1/64	●	●	●	●								
	221L-Y	110304L-Y	1/64	●	●	●	●								
	222R-Y	110308R-Y	1/32		●										
	222L-Y	110308L-Y	1/32		●										
VBGT	3305R-Y	160402R-Y	0.008	●	●	●	●	●							
	3305L-Y	160402L-Y	0.008	●	●	●	●	●							
	331R-Y	160404R-Y	1/64	●	●	●	●	●							
	331L-Y	160404L-Y	1/64	●	●	●	●	●							
	332R-Y	160408R-Y	1/32		●										
	332L-Y	160408L-Y	1/32		●										
VBGT	22013MR-Y	1103005MR-Y	<0.002												
	22013ML-Y	1103005ML-Y	<0.002												
	2202MR-Y	110301MR-Y	<0.004												
	2202ML-Y	110301ML-Y	<0.004												
	2205MR-Y	110302MR-Y	<0.008												
	2205ML-Y	110302ML-Y	<0.008												
	221MR-Y	110304MR-Y	<1/64												
	221ML-Y	110304ML-Y	<1/64												
	222MR-Y	110308MR-Y	<1/32												
	222ML-Y	110308ML-Y	<1/32												
VBGT	3305MR-Y	160402MR-Y	<0.008												
	3305ML-Y	160402ML-Y	<0.008												
	331MR-Y	160404MR-Y	<1/64												
	331ML-Y	160404ML-Y	<1/64												
	332MR-Y	160408MR-Y	<1/32												
	332ML-Y	160408ML-Y	<1/32												

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

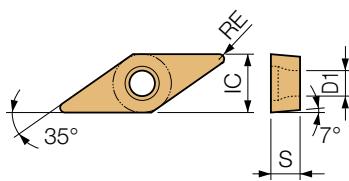


A INSERTS GRADES	B TURNING INSERTS	C CNCD	D HOLDERS	E SMALL TOOLS	F BRONZING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK-CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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How to read this page B15

35° Diamond

Positive Insert with Hole



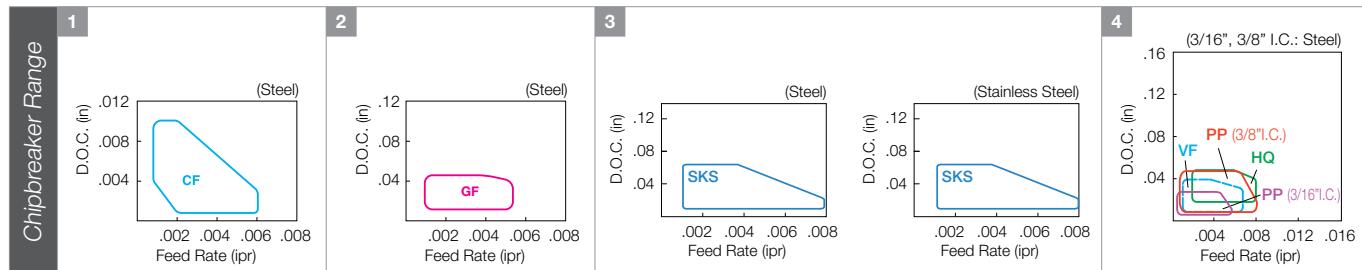
P	●●	●●○	○●●○○×	○\$	●	●○	○○	Free-Cutting Steel
M			○\$	●●	○○	●○	○○	Carbon/Alcry Steel
K			○					Stainless Steel
N								Gray Cast Iron
S			○○		●	○		Nodular Cast Iron
H					●			Non-ferrous Metals

Left-Hand Shown
where Applicable

ANSI ISO
Part Number Part Number

Minute D.O.C.												
Finishing	Sharp Edge Polished	VCGT 2202MP-CF	110301MP-CF	<0.004						● △	●	
		2205MP-CF	110302MP-CF	<0.008						● △	●	
Finishing	Sharp Edge Polished	VCGT 2202MFP-GF	110301MFP-GF	<0.004						● ● △	●	E40 E41 E47
		2205MFP-GF	110302MFP-GF	<0.008						● ● △	●	
Finishing	Sharp Edge Polished	VCGT 2202MFP-SKS	110301MFP-SKS	<0.004						● ●	●	
		2205MFP-SKS	110302MFP-SKS	<0.008						● ●	●	
	Sharp Edge Polished	221MFP-SKS	110304MFP-SKS	<1/64						● ●	●	
Finishing		VCMT 151505PP	080202PP	0.008	● ●	● ● ● ●	● ● ● ● ●			● △ ●	●	E47 F68 F70-F75
		15151PP	080204PP	1/64	● ●	● ● ● ●	● ● ● ● ●			● △ ●	●	
Finishing		VCMT 331PP	160404PP	1/64	● ●	● ● ● ●	● ● ● ● ●			● △ ●	●	E38-E39 F68 F70-F75
		332PP	160408PP	1/32	● ●	● ● ● ●	● ● ● ● ●			● △ ●	●	
Finishing		VCMT 151505VF	080202VF	0.008	● ●	● ● ● ●	● ● ●	● ●		● △	● ●	△
		15151VF	080204VF	1/64	● ●	● ● ● ●	● ● ● ● ● ●			● △	● ●	△
Finishing		VCMT 151505HQ	080202HQ	0.008	● ● ● ● ● ●		● ● ●	● ●		● △	● ●	△
		15151HQ	080204HQ	1/64	● ● ● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ●			● △	● ●	△ △
Finishing-Medium	VCMT 221HQ	110304HQ	1/64		●		● ●	●				
	VCMT 331HQ	160404HQ	1/64		●		●	● ●	●			
	VCMT 332HQ	160408HQ	1/32		●		△	● ●	●		●	●

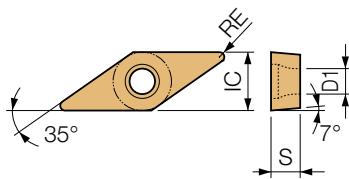
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

35° Diamond

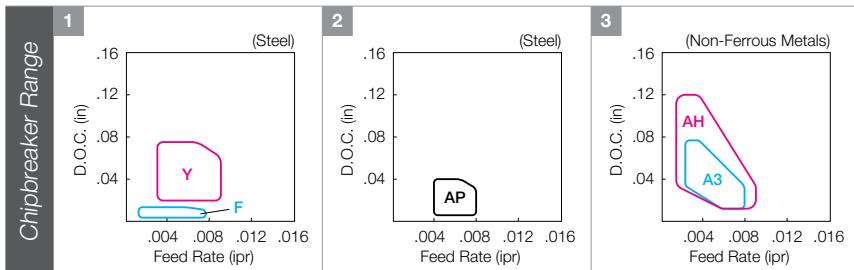
Positive Insert with Hole



ANSI ISO
Part Number Part Number

			Part Number	Part Name
Finishing	Sharp Edge	VCET	2202MR-F	110301MR-F
			2202ML-F	110301ML-F
			2205MR-F	110302MR-F
			2205ML-F	110302ML-F
			221MR-F	110304MR-F
	Sharp Edge		221ML-F	110304ML-F
		VCET	22013MR-Y	1103005MR-Y
			22013ML-Y	1103005ML-Y
			2202MR-Y	110301MR-Y
			2202ML-Y	110301ML-Y
Finishing-Medium	Sharp Edge		2205MR-Y	110302MR-Y
			2205ML-Y	110302ML-Y
			221MR-Y	110304MR-Y
			221ML-Y	110304ML-Y
		VCGT	331AP	160404AP
	Sharp Edge Non-ferrous Metals		331R-A3	160404R-A3
			331L-A3	160404L-A3
			332R-A3	160408R-A3
Finishing-Medium	Sharp Edge Non-ferrous Metals		332L-A3	160408L-A3
		VCGT	331AH	160404AH
			331R-A3	160404R-A3
	Sharp Edge Non-ferrous Metals		331L-A3	160404L-A3
			332R-A3	160408R-A3
Medium	Sharp Edge		332L-A3	160408L-A3
		VCGT	2202FN-Z	110301FN-Z
	Sharp Edge		2205FN-Z	110302FN-Z
			221FN-Z	110304FN-Z
Medium-Roughing	VCGT	333		160412
			Non-ferrous Metals	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology.

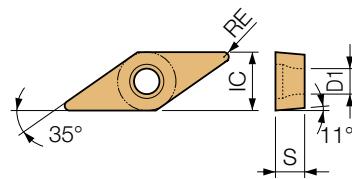
Inserts sold in 10 piece boxes.

How to read this page 

35° Diamond

Positive Insert with Hole

B	TURNING INSERTS
C	
D	
R	
S	
T	
V	
W	
CERAMIC	



Part Number	Applicable Toolholder Page										Part Number	IC	S	D1	
	VP_1515_	E42, E44, F68			VP_1515_	3/16			VP_22_	E23, E42-E44			VP_22_	1/4	
P															
M															
K															
N															
S															
H															
	Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	PVD Cermet										
RE	TN610	TN820	CCX	PV710	PV720	PV730	PV705	CA510	CA515	CA025P	CA525	CA5605	CA5615	CA5625	CA5635
Minute D.O.C.	VPGT 2205CF	110302CF	<0.008												
Sharp Edge	VPGT 2202M-CF	110301M-CF	<0.004												
	2205M-CF	110302M-CF	<0.008												
Minute D.O.C.	VPGT 2202MP-CF	110301MP-CF	<0.004												
Sharp Edge / Polished	2205MP-CF	110302MP-CF	<0.008												
Finishing	VPGT 2202MF-GF	110301MF-GF	<0.004												
Sharp Edge	2205MF-GF	110302MF-GF	<0.008												
Finishing	VPGT 2202MFP-GF	110301MFP-GF	<0.004												
Sharp Edge / Polished	2205MFP-GF	110302MFP-GF	<0.008												
Finishing	VPGT 2202MFP-SKS	110301MFP-SKS	<0.004												
Sharp Edge Polished	2205MFP-SKS	110302MFP-SKS	<0.008												
	221MFP-SKS	110304MFP-SKS	<1/64												
Finishing	VPGT 151502CK	080201CK	0.004												
	151505CK	080202CK	0.008												
Finishing	VPGT 2202CK	110301CK	0.004												
	2205CK	110302CK	0.008												
Finishing	VPGT 151502M-CK	080201M-CK	<0.004												
	151505M-CK	080202M-CK	<0.008												
Finishing	VPGT 2202M-CK	110301M-CK	<0.004												
	2205M-CK	110302M-CK	<0.008												
Finishing	VPGT 151502MP-CK	080201MP-CK	<0.004												
Sharp Edge / Polished	151505MP-CK	080202MP-CK	<0.008												
	VPGT 2202MP-CK	110301MP-CK	<0.004												
Finishing	VPGT 2205MP-CK	110302MP-CK	<0.008												

Reference Table Above

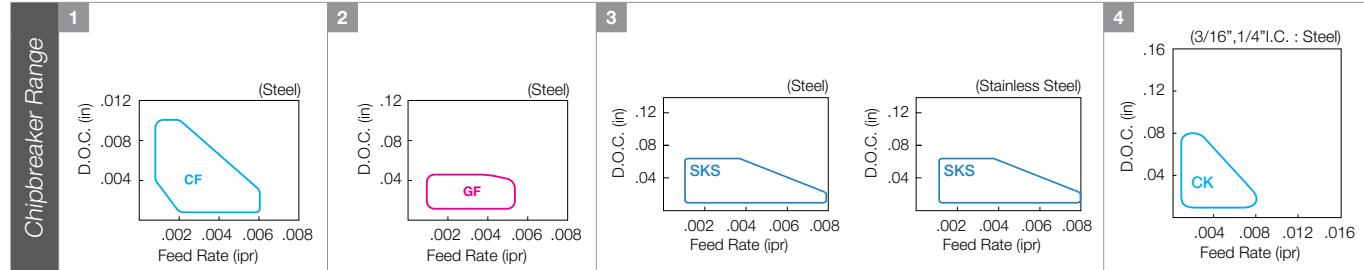
1

2

3

4

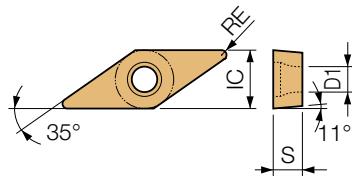
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

35° Diamond

Positive Insert with Hole



Part Number	Applicable Toolholder Page
VP..22_	E42, E44, F68
VP..33_	E23, E42-E44

Part Number	I _C	S	D ₁
VP_1515_	3/16	3/32	0.091
VP_22_	1/4	1/8	0.110

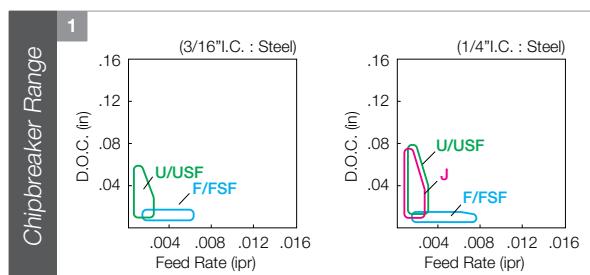
Left-Hand Shown where Applicable
ANSI ISO
Part Number Part Number

		Corner Radius (in)	Cermet	CVD Cermet	MEGA COAT Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide	Toolholder Page	Chipbreaker Range
	RE											
	TNG610											
	TNG20											
	CCX											
	PV710											
	PV720											
	PV730											
	PV7005											
	PV90											
	PV/D Cermet											
	CA510											
	CA515											
	CA025P											
	CA525											
	CA530											
	CA5605											
	CA5525											
	CA5535											
	CA6515											
	CA6525											
	CA310											
	CA315											
	CA4505											
	CA4515											
	PR1705											
	PR1725											
	PR1425											
	PR1225											
	PR105S											
	PR015S											
	PR330											
	PR1005											
	PR1025											
	PR1125											
	PDL010											
	PDL025											
	KW10											
	SW05											

Reference Table Above

1

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

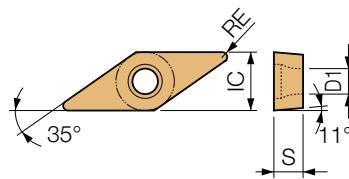
A INSERTS GRADES	B TURNING INSERTS	C CBN/PCD INSERTS	D TURNING HOLDERS	E SMALL BORING	F GROOVING	G CUT-OFF	H THREADING	K DRILLING	M MILLING	N QUICK CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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How to read this page B15

35° Diamond

Positive Insert with Hole

B	Turning Inserts
C	
D	
R	
S	
T	
V	
W	
CERAMIC	

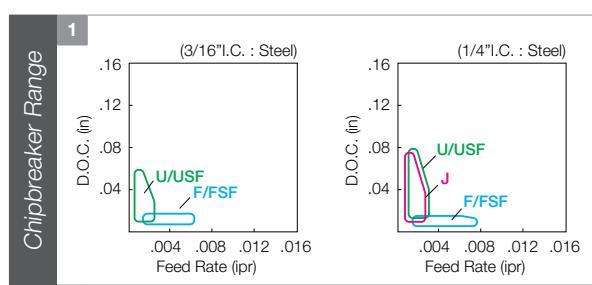


	ANSI Part Number	ISO Part Number	Corner Radius (in)	Applicable Toolholder Page				Part Number	IC (in)	S (in)	D1 (in)		
				RE	TN610	TN820	CCX	Cermet	CVD Coated Carbide	MEGACOAT / MEGACOAT NANO PVD Coated Carbide	PVD Coated Carbide	DLC	Carbide
Super Fine	VPET 151502FR-USF	080201FR-USF	0.004	●				CA510			●	PR830	PR1005
	151502FL-USF	080201FL-USF	0.004					CA515			●	PR1026	PR1125
	151505FR-USF	080202FL-USF	0.008	●				CA025P			●	PDL010	PDL025
	151505FL-USF	080202FL-USF	0.008	●				CA530			●	KW10	SW05
Low Feed	VPET 2201FR-USF	110303FR-USF	0.001					CA5605					
	2201FL-USF	110303FL-USF	0.001					CA5515					
	2202FR-USF	110301FR-USF	0.004	●				CA5525					
	2202FL-USF	110301FL-USF	0.004					CA5535					
	2205FR-USF	110302FL-USF	0.008	●				CA6515					
	2205FL-USF	110302FL-USF	0.008	●				CA6525					
	VPET 151502MFR-USF	080201MFR-USF	<0.004					CA310					
	151505MFR-USF	080202MFR-USF	<0.008					CA315					
	151505MFL-USF	080202MFL-USF	<0.008					CA320					
	VPET 22013MFR-USF	1103005MFR-USF	<0.002					CA4505					
Sharp Edge / Precision	22013MFL-USF	1103005MFL-USF	<0.002					CA4515					
	2202MFR-USF	110301MFR-USF	<0.004					CA1725					
	2202MFL-USF	110301MFL-USF	<0.004					PR1725					
	2205MFR-USF	110302MFR-USF	<0.008					PR1425					
	2205MFL-USF	110302MFL-USF	<0.008					PR1225					
	VPET 151502MFR-U	080201MFR-U	<0.004					PR0155					
	151502MFL-U	080201MFL-U	<0.004					PR1305					
	151505MFR-U	080202MFR-U	<0.008					PR1310					
	151505MFL-U	080202MFL-U	<0.008					PR1325					
	VPET 22013MFR-U	1103005MFR-U	<0.002					PR1535					
Low Feed	22013MFL-U	1103005MFL-U	<0.002										
	2202MFR-U	110301MFR-U	<0.004										
	2202MFL-U	110301MFL-U	<0.004										
	2205MFR-U	110302MFR-U	<0.008										
	2205MFL-U	110302MFL-U	<0.008										
	VPET 22013MFR-J	1103005MFR-J	<0.002										
	2202MFR-J	110301MFR-J	<0.004										
	2202MFL-J	110301MFL-J	<0.004										
	2205MFR-J	110302MFR-J	<0.008										
	2205MFL-J	110302MFL-J	<0.008										
Sharp Edge													

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

Reference Table Above

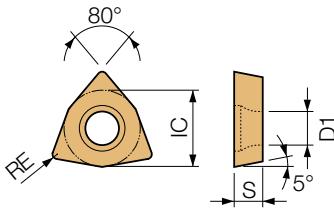
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How to read this page B15

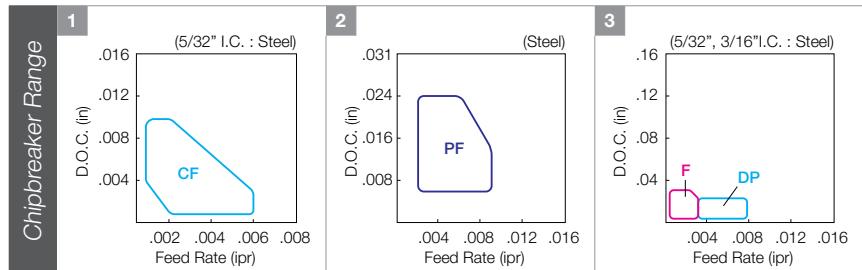
80° Trigon

Positive Insert with Hole



Left-Hand Shown
where Applicable

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

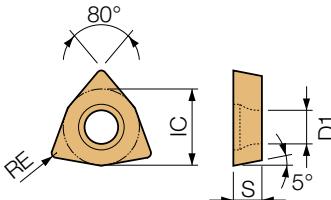
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

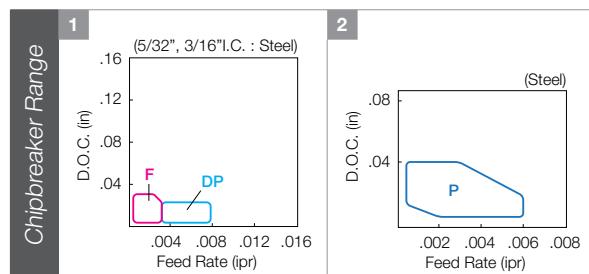
How to read this page B15

80° Trigon

Positive Insert with Hole



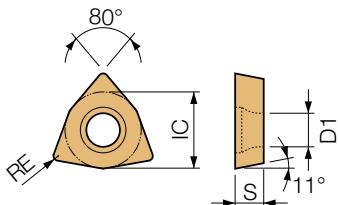
- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



How to read this page B15

80° Trigon

Positive Insert with Hole

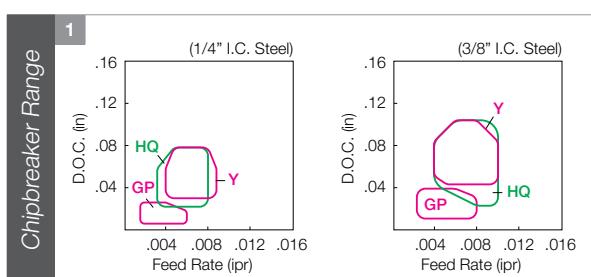


Left-Hand Shown
where Applicable

ANSI ISO
Part Number Part Number

Finishing		WPMT 2151GP	110204GP	1/64	●●	●●	●●	●●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		WPMT 321GP	160304GP	1/64	●△	●●	△●●●	●●	●●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Finishing-Medium		WPMT 21505HQ	110202HQ	0.008	●●●●	●●●	●●●●	●●●●	●●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		2151HQ	110204HQ	1/64	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	
Finishing-Medium		WPMT 321HQ	160304HQ	1/64	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	
		322HQ	160308HQ	1/32	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	
Cast Iron		WPGT 21505L-Y	110202L-Y	0.008	●																●		●	
		2151R-Y	110204R-Y	1/64																	●		●	
Finishing-Medium		2151L-Y	110204L-Y	1/64	●																●		●	
		WPGT 321R-Y	160304R-Y	1/64	●																●		●	
Finishing-Medium		321L-Y	160304L-Y	1/64	●																●		●	
		322L-Y	160308L-Y	1/32																	●		●	
Finishing-Medium		WPGT 2151MR-Y	110204MR-Y	<1/64																●		△		
		2151ML-Y	110204ML-Y	<1/64																●●		△△		
Finishing-Medium		WPGT 321MR-Y	160304MR-Y	<1/64																	●		△	
Cast Iron		WPGW 21505	110202	0.008																	●			
		2151	110204	1/64																	●		●	
Finishing-Medium		WPGW 321	160304	1/64																	●		●	
		Without Chipbreaker	322	160308	1/32																●		●	

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).



● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.

ZBMT Series NEW

25° Insert Profiling Tools

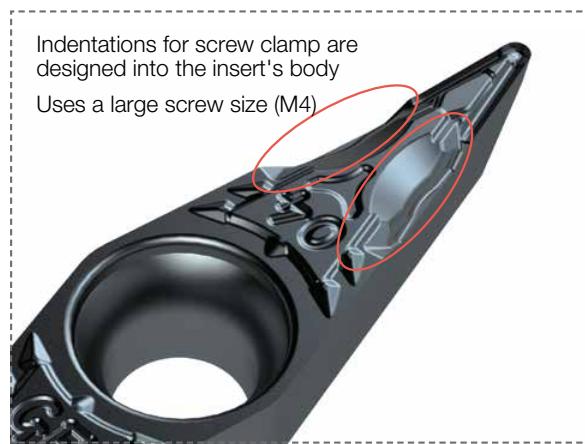
Unique clamping structure and a wide lineup of external toolholders and boring bars.

High precision and stable machining in a wide range of applications including copying, undercutting, tapering, V-slotted, spherical machining, and more.

Newly Developed Self-Clamping Mechanism Achieves a Higher Rigidity

Side Lock Mechanism

Unique design holds insert at 2 points
Safe even for insert with small tip angle that is difficult to mount



GF Chipbreaker

Solving chip control issues leads to high-quality surface finishes

New GF Chipbreaker for ZBMT Reduces Chip Control Issues at minute D.O.C.

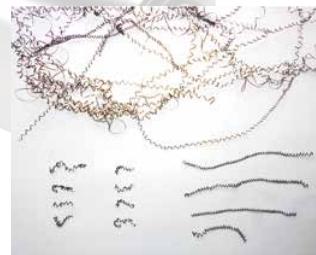
The thin molded chipbreaker extends near the corner and reliably controls chips even in narrow spaces

Chip Control Comparison
(Internal Evaluation)



Two-step dot
Responds to chip fluctuation

Molded cutting edge
Improved chip control at small D.O.C.



Circular chipbreaker

Low resistance and excellent chip control even in ductile workpieces

Competitor A (25° Type)

Cutting Conditions : $V_c = 750$ sfm, $f = 0.006$ ipr, D.O.C. = 0.008" - 0.020", Wet Workpiece 4137 Facing

How to read this page B15

25° / 15° Diamond

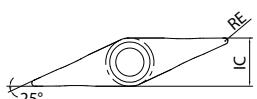
Positive Insert with Hole

ZBMT Inserts

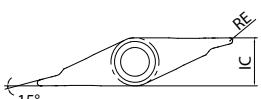
for Copying, profiling, undercutting, tapering, and V-slotted



Tip Angle 25°



ZBMT 13T302GF

Tip Angle 15°
(Right-Hand)

ZBMT 13T304GF

ZBMT 13T308GF

ZBMT 13T304R-GF-15D

ISO
Part Number

Toolholder Page	Dimensions (in)				MEGACOAT NANO	
	IC	S	D1	RE	PR1725	PR1535
D30 F81	1/2	0.156	0.209	0.008	●	●
				1/64	●	●
				1/32	●	●

Because insert has a molded shape, the tip angle may be 24° depending on the measurement location.

Recommended Cutting Conditions

Workpiece	Insert tip angle	Corner-R (RE) (in)	Insert Grade	Vc (sfm)	D.O.C. (in)	f (ipr)
Carbon Steel / Alloy Steel	25°	0.008	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
		1/64 - 1/32	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
	15°	1/64	PR1725	200 - 490 - 660	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
Stainless Steel	25°	0.008	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
		1/64 - 1/32	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.006 - 0.010
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.006 - 0.010
	15°	1/64	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
			PR1535	200 - 390 - 490	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006
Cast Iron	25°	0.008	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.059	0.002 - 0.004 - 0.006
		1/64 - 1/32	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.079	0.002 - 0.006 - 0.010
	15°	1/64	PR1725	200 - 490 - 590	0.008 - 0.012 - 0.039	0.002 - 0.004 - 0.006

When machining at D.O.C. 0.059" or more, reduce the feed by about 50%.

NEW ITEMS!	A INSERT GRADES	B TURNING INSERTS	C CBN/PCD INSERTS	D TURNING HOLDERS	E SMALL TOOLS	F BORING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK-CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
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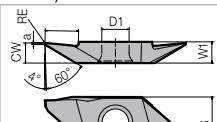
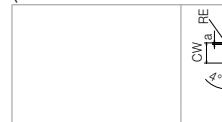
Back Turning

Turning Inserts (Small Tools)

B

TURNING
INSERTS**TKFB Inserts**

(for KTKF Toolholders)



• Right-handed insert shown

ANSI
Part Number

TKFB	12R15005M
	12R28005M
	12R28010M

TKFB	16R38005M
	16R38010M

TKFB	12L28005MR
	12L28010MR

TKFB	16L38005MR
	16L38010MR

TKFB	12R28005P-GQ
	12R28015P-GQ

TKFB	16R38005P-GQ
	16R38015P-GQ

TKFB	12R28005-GQ
	12R28015-GQ

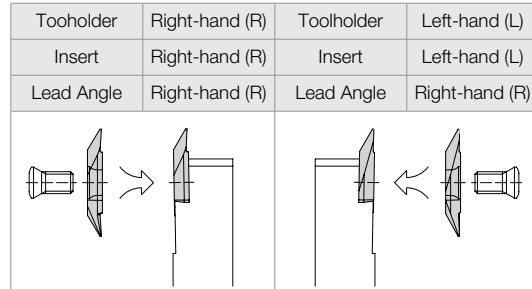
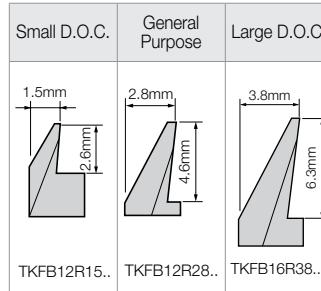
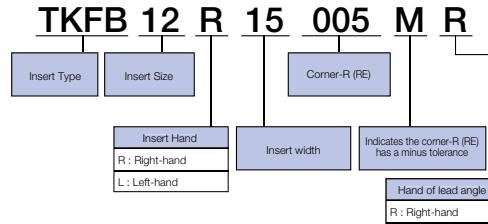
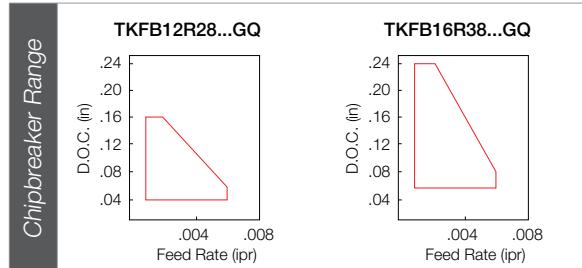
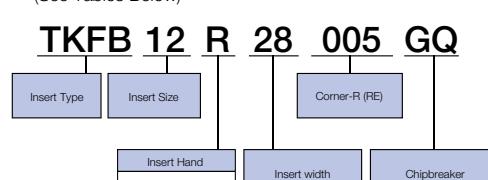
TKFB	16R38005-GQ
	16R38015-GQ

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 Alloy		○	●	○	○	○
H	Hard materials		●	○			

	Dimensions (in)								MEGACOAT NANO	PVD Coated Carbide Carbide	Toolholder Page
	CW	a	CDX	RE	W1	S	D1	θ			
TKFB 12R15005M	0.059	0.010	0.102	<0.002	0.118	0.343	0.205	-	●	△	●
TKFB 12R28005M	0.110	0.012	0.181	<0.002	0.118	0.343	0.205	-	●	△	●
TKFB 12R28010M	0.110	0.012	0.181	<0.004	0.118	0.343	0.205	-	●	△	●
TKFB 16R38005M	0.150	0.012	0.248	<0.002	0.157	0.374	0.205	-	●	△	●
TKFB 16R38010M	0.150	0.012	0.248	<0.004	0.157	0.374	0.205	-	●	△	●
TKFB 12L28005MR	0.110	0.012	0.181	<0.002	0.118	0.343	0.205	-		●	●
TKFB 12L28010MR	0.110	0.012	0.181	<0.004	0.118	0.343	0.205	-		●	●
TKFB 16L38005MR	0.150	0.012	0.248	<0.002	0.157	0.374	0.205	-		●	●
TKFB 16L38010MR	0.150	0.012	0.248	<0.004	0.157	0.374	0.205	-		●	●
TKFB 12R28005P-GQ	0.110	0.059	0.181	0.002	0.118	0.343	0.205	74°	●	△	●
TKFB 12R28015P-GQ	0.110	0.059	0.181	0.006	0.118	0.343	0.205	74°	●	△	●
TKFB 16R38005P-GQ	0.150	0.071	0.248	0.002	0.157	0.374	0.205	72°	●	△	●
TKFB 16R38015P-GQ	0.150	0.071	0.248	0.006	0.157	0.374	0.205	72°	●	△	●
TKFB 12R28005-GQ	0.110	0.059	0.181	0.002	0.118	0.343	0.205	74°	●	△	●
TKFB 12R28015-GQ	0.110	0.059	0.181	0.006	0.118	0.343	0.205	74°	●	△	●
TKFB 16R38005-GQ	0.150	0.071	0.248	0.002	0.157	0.374	0.205	72°	●	△	●
TKFB 16R38015-GQ	0.150	0.071	0.248	0.006	0.157	0.374	0.205	72°	●	△	●

E12
E14

- Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

● Insert Identification System
(See Tables Below)

● Insert Identification System
(See Tables Below)


Back Turning

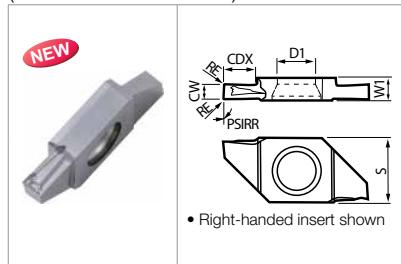
Turning Inserts (Small Tools)

P	Free-Cutting Steel Carbon Steel / Alloy Steel		
M	Stainless Steel		
K	Gray Cast Iron		
N	Nodular Cast Iron		
S	Non-ferrous Metals		
H	Heat-Resistant Alloys Titanium Alloy		
	Hard materials		

A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERTS	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK-CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

TKF Inserts (GTP Chipbreaker) (for KTKF Toolholders)

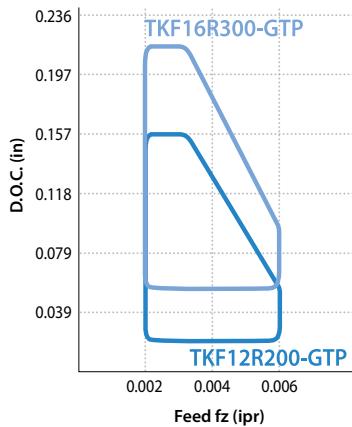
ANSI Part Number



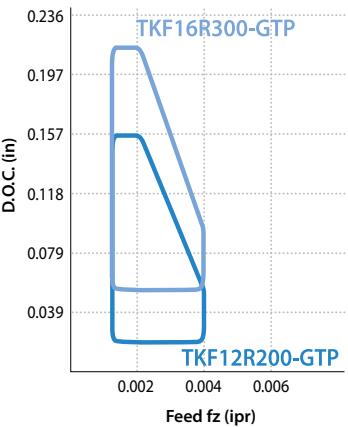
TKF 12R200-GTP
TKF 16R300-GTP

Toolholder Page	Dimensions (in)								MEGACOAT NANO	
	CW		CUTDIA	RE	W1	S	D1	PSIRR	PR1725	PR1535
	in	mm								
E12 E14	0.079	2.0	0.181	0.003	0.118	0.343	0.197	0°	●	●
	0.118	3.0	0.236	0.003	0.157	0.374	0.197	0°	●	●

Chipbreaker Range (Steel)



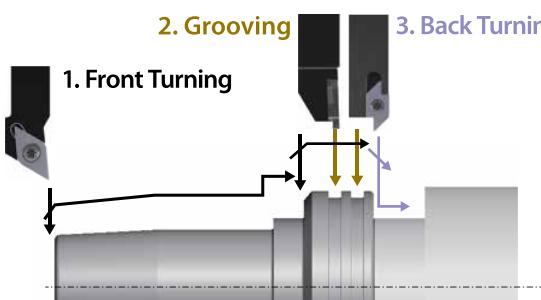
Chipbreaker Range (Stainless Steel)



Integrated Tooling Solutions with GTP chipbreaker

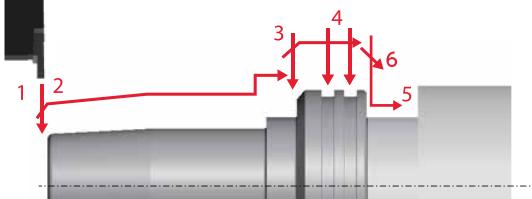
The GTP chipbreaker can be used for external turning, grooving, and back turning operations

Conventional Tools



GTP Chipbreaker

1.GTP Chipbreaker



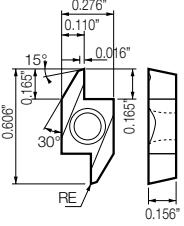
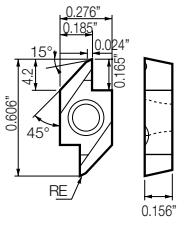
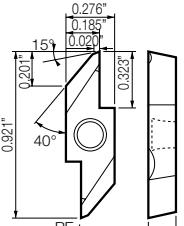
* Max. Grooving Width / Max. D.O.C. = TKF12R200-GTP (2.0mm / 4.0mm), TKF16R300-GTP (3.0mm / 5.5mm)

Back Turning

Turning Inserts (Small Tools)

BTURNING
INSERTS

AABS / SABS / AABW / SABW Inserts

		ANSI Part Number	Corner Radius (in) RE	Cermet	MEGACOAT NANO			PVD Coated Carbide	Carbide	Toolholder Page
				TC60	PR1705	PR1725	PR1425	PR1225	PR930	
		ABS 15R4005	0.002	●				●		●
		15R4015	0.006	●				●		●
		ABS 15R4005M	<0.002		●	●	△	●	△	△
		15R4015M	<0.006		●	●	△	●	△	△
		ABW 15R4005	0.002	●				●		●
		15R4015	0.006	●				●		●
		ABW 15R4005M	<0.002		●	●	△	●	△	△
		15R4015M	<0.006		●	●	△	●	△	△
		ABW 23R5005	0.002	●				●		●
		23R5015	0.006	●				●		●
		ABW 23R5005M	<0.002		●	●	△	●		△
		23R5015M	<0.006		●	●	△	●	△	△

• Insert with corner R (RE) dimension expressed with less than sign (e.g. <0.002, <0.004, <0.008 etc.) indicate models with minus tolerance for corner R (RE).

E19

E20

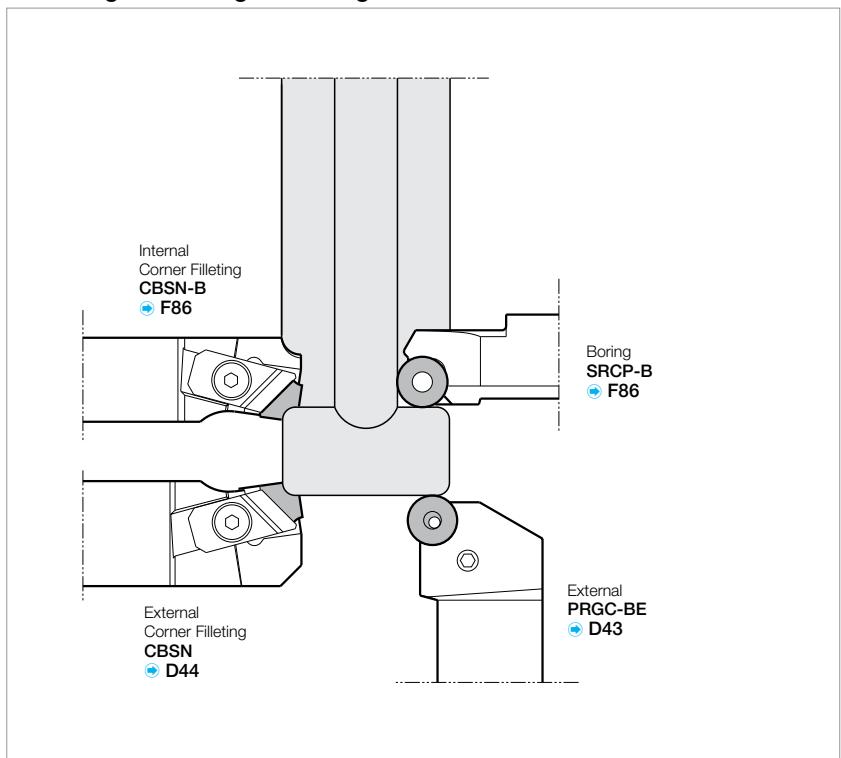
E21

Bearing Machining

A INSERT GRADES	B TURNING INSERTS	C CBN/PCD INSERTS	D TURNING HOLDERS	E SMALL TOOLS	F BORING	G GROOVING	H CUT-OFF	J THREADING	K DRILLING	M MILLING	N QUICK CHANGE TOOLING	P SPARE PARTS	R TECHNICAL	T INDEX
--------------------	----------------------	----------------------	----------------------	------------------	-------------	---------------	--------------	----------------	---------------	--------------	---------------------------	------------------	----------------	------------

	ISO/ANSI Part Number	Dimension (mm)					Relief Angle	Cermet	TN90	Toolholder Page		
		IC	S	D1	RE	AN						
External / Boring / Facing	RCMT 1204M0-BB	12.0	4.76	4.2	-	7°	●	D43	F86	F86		
	1606M0-BB	16.0	6.35	5.5	-	7°	●					
	RPMT 42M0-BB	12.0	3.18	4.4	-	11°	●	F86				
	1604M0-BB	16.0	4.76	5.5	-	11°	●					
Corner Filleting	INSL	S	CDX	RE	-	-	●	●	D44 F86	F86		
	SNMF 120406-21	12.70	4.76	1.5	0.6							
	120410-21	12.70	4.76	3.0	1.0							
	120416-21	12.70	4.76	3.1	1.6							
	120421-21	12.70	4.76	3.2	2.1							
	120426-21	12.70	4.76	3.3	2.6							

◆ Tooling for Bearing Machining



Micro Boring

B
TURNING
INSERTS

NEGATIVE

C

D

R

S

T

V

W

CERAMIC

Twin Bars

Micro Boring	Micro Face Grooving
TWB Twin-Bars F44	TWFG Twin-Bars G10
TWBT Twin-Bars F45	TWFGT Twin-Bars G101

Solid Micro Boring Bars

Micro Boring	
MBS Micro Bars F14	MBE Micro Bars F15

EZ Bars / System Tip-Bars / Tip-Bars

Micro Boring		Micro Back Boring
EZB EZ Bars F18	EZVB EZ Bars F23	EZBT EZ Bars F23
EZBF EZ Bars F22	EZBP EZ Bars F25	NEW EZBC EZ Bars F26
VNB-S / VNB System Tip-Bars F38	VNBX-S System Tip-Bars F42	VNBT System Tip-Bars F39

Solid Tip-Bars (Grooving / Threading)

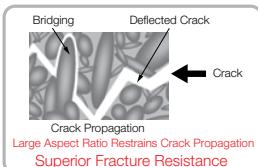
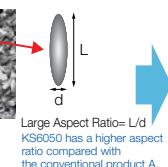
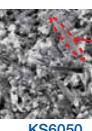
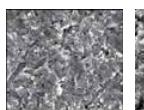
Micro Grooving	Micro Face Grooving	Micro Internal Threading
EZG EZ Bars G63	EZFG EZ Bars G96	EZT EZ Bars J32
VNG System Tip-Bars G65	VNFG System Tip-Bars G98	VNT System Tip-Bars J36

KS6015 / KS6050 / CS7050 High Speed Machining of Cast Iron

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

■ KS6015 NEW

Wear Resistant Machining



■ KS6050

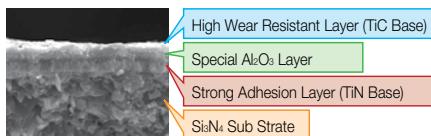
General Purpose Interrupted Machining

■ CS7050 (Coated Si₃N₄)

Superior wear resistance attained

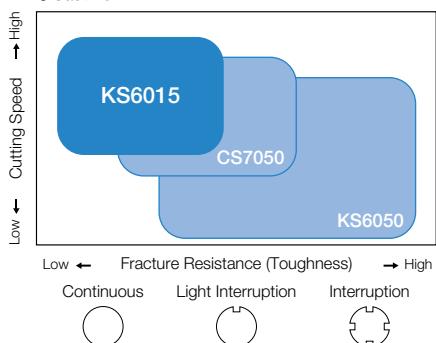
with strong coating adherence

Applicable to high speed machining



■ Application Map

● Cast Iron

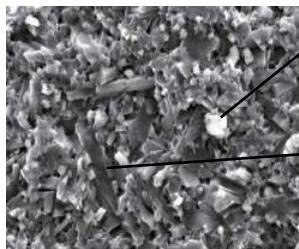


KS6030/KS6040 SiAlON Ceramic Heat-Resistant Alloy Machining

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

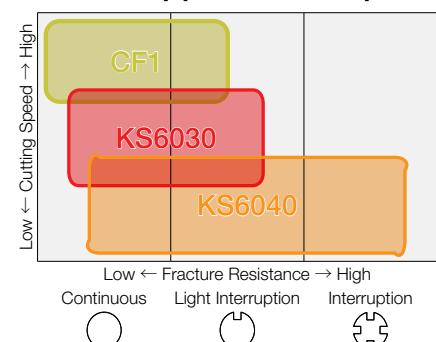


Superior balance in heat resistant alloys machining achieves optimum balance between wear and fracture resistance.



Hard Particle (Improved Wear Resistance)
Acicular Particle (Improved Fracture Resistance)

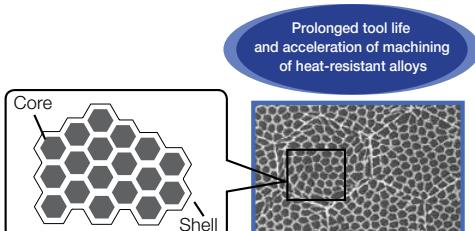
■ HRSA Application Map



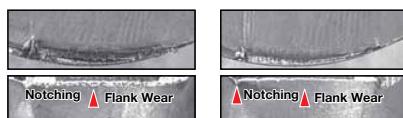
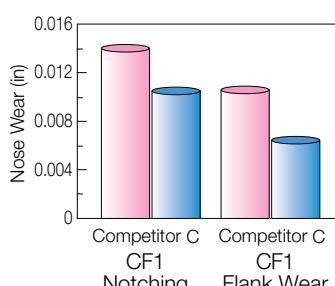
CF1 Honeycomb Structure Ceramic Heat-Resistant Alloy Machining

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: RNNGN120400
Vc = 490sfm, D.O.C. = 0.039"
Feed Rate f = 0.006ipr Wet

■ Ceramic Insert Identification System

C N G A 12 04 04 S01525

Refer to B2 for "Indexable Turning Inserts Identification System"

Edge Prep.

● How to Identify Edge Preparation

Edge Prep.	Symbol	Cutting Edge Spec.	Example		Shape
	S	Chamfered and Honed Cutting edge	S00625	0.006" X 25° Chamfered and Honed Cutting edge	
	T	Chamfered Cutting edge	T00825	0.008" X 25° Chamfered Cutting edge	

● Refer to B3 for insert color

INSERT GRADES	A
TURNING INSERTS	B
CBN/PCD INSERTS	C
TURNING HOLDERS	D
SMALL TOOLS	E
BORING	F
GROOVING	G
CUT-OFF	H
THREADING	J
DRILLING	K
MILLING	M
QUICK-CHANGE TOOLING	N
SPARE PARTS	P
TECHNICAL	R
INDEX	T

CERAMIC TURNING INSERTS (NEGATIVE)

How to read this page B15

80° Diamond

Negative Insert

Symbol	Edge Prep.		Example	K	Gray Cast Iron (With Scale)		●	○	○	●	✖	○						
	Cutting Edge Spec.				Gray Cast Iron (Without Scale)	Nodular Cast Iron (With Scale)												
S	Chamfered and Honed Cutting Edge	S00625	0.006" X 25° Chamfered and Honed Cutting Edge	S	Heat-resistant Alloys													
T	Chamfered Cutting Edge	T00625	0.006" X 25° Chamfered Cutting Edge	H	Hard Materials			○	●									
Insert			ANSI Part Number	Edge Prep (in)	ISO Part Number	Corner Radius (in)	KA30	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7050	KS6030	KS6040	CF1	KXW1
		CNGA 433T00425AA	S00425	CNGA 120412S01025	3/64	●												
		CNGA 431T00625AA	S00625	CNGA 120404S01525	1/64													
		432T00625AA		120408S01525	1/32			●	●									
		433T00625AA		120412S01525	3/64			●	●									
		CNGA 431S00825	S00825	CNGA 120404S02025	1/64							●						
		432S00825		120408S02025	1/32							●						
		433S00825		120412S02025	3/64							●						
		CNGA 431T01230AA	S01230	CNGA 120404S03030	1/64							●						
		432T01230AA		120408S03030	1/32			●	●									
		433T01230AA		120412S03030	3/64			●	●									
		CNGA 431T00625	T00625	CNGA 120404T01525	1/64							●						
		432T00625		120408T01525	1/32							●						
		433T00625		120412T01525	3/64							●						
		CNGA 431T00825	T00825	CNGA 120404T02025	1/64		●	●										
		432T00825		120408T02025	1/32		●	●										
		433T00825		120412T02025	3/64		●	●				●	●	●	●	●		
		CNGA 543T00825	T00825	CNGA 160612T02025	3/64							●						
		CNMA 432T00625AA	S00625	CNMA 120408S01525	1/32							●						
		CNMA 432T01230AA	S01230	CNMA 120408S03030	1/32							●						
		433T01230AA		120412S03030	3/64							●						
		CNG 432T00425AA	S00425	CNGN 120408S01025	1/32	△												
		433T00425AA		120412S01025	3/64	●												
		CNG 432T00420	T00420	CNGN 120408T01020	1/32										●	△	△	
		433T00420		120412T01020	3/64													
		CNG 432T00825	T00825	CNGN 120408T02025	1/32		●									△		
		433T00825		120412T02025	3/64		●											
		434T00825		120416T02025	1/16		●											
		CNG 452T00625AA	S00625	CNGN 120708S01525	1/32							●						
		453T00625AA		120712S01525	3/64							●						
		CNG 452T00420	T00420	CNGN 120708T01020	1/32											△	△	
		453T00420		120712T01020	3/64													
		CNG 451T00825	T00825	CNGN 120704T02025	1/64		●											
		452T00825		120708T02025	1/32		●											
		453T00825		120712T02025	3/64		●											
		454T00825		120716T02025	1/16		●											
		CNG 552T00825	T00825	CNGN 160708T02025	1/32		●											
		553T00825		160712T02025	3/64		●											
		554T00825		160716T02025	1/16		●											
		CNM 452T00825	T00825	CNMM 120708T02025	1/32		●											
		453T00825		120712T02025	3/64		△											
		CNGX 453T00825	T00825	CNGX 120712T02025	3/64													
		454T00825		120716T02025	1/16										△	△		

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
your local Kyocera sales engineer to upgrade old products to new technology

CERAMIC TURNING INSERTS (NEGATIVE)

How to read this page ➔ B15

55° / 75° Diamond Negative Insert

Symbol	Edge Prep.		Example	K	Gray Cast Iron (With Scale)		●	○	○	○	○	○
					Gray Cast Iron (Without Scale)							
S	Chamfered and Honed Cutting Edge	S00525	0.005" X 25° Chamfered and Honed Cutting Edge	S	Nodular Cast Iron (With Scale)	●	○	○	○	○	○	○
T	Chamfered Cutting Edge	T00315	0.003" X 15° Chamfered Cutting Edge	H	Nodular Cast Iron (Without Scale)	●	○	○	○	○	○	○
Insert			ANSI Part Number	Edge Prep (in)	ISO Part Number	Corner Radius (in)	RE	KA30	A65	KT66	PVD Coated Ceramic MEGAQAT Ceramic	Silicon Nitride Ceramic
		DNGA 432T00425AA	S00425	DNGA 150408S01025	1/32	△						
		DNGA 431T00625AA	S00625	DNGA 150404S01525	1/64				●			
		432T00625AA		150408S01525	1/32			●	●			
		DNGA 431S00825	S00825	DNGA 150404S02025	1/64				●			
		432S00825		150408S02025	1/32			●	●			
		DNGA 432T01230AA	S01230	DNGA 150408S03030	1/32			●				
		DNGA 431T00825	T00825	DNGA 150404T02025	1/64			●				
		432T00825		150408T02025	1/32			●	△			
		433T00825		150412T02025	3/64			●	●			
		434T00825		150416T02025	1/16			●		●		
		DNGA 442T00625AA	S00625	DNGA 150608S01525	1/32				●			
		443T00625AA		150612S01525	3/64			●	●			
		444T00625AA		150616S01525	1/16			●	●			
		DNGA 441T00825	T00825	DNGA 150604T02025	1/64			●				
		442T00825		150608T02025	1/32			●	△			
		443T00825		150612T02025	3/64			●		●		
		DNG 451T00625AA	S00625	DNGN 150704S01525	1/64				●			
		452T00625AA		150708S01525	1/32			●	●			
		453T00625AA		150712S01525	3/64			●				
		DNG 452S00825	S00825	DNGN 150708S02025	1/32				●			
		DNG 451T00825	T00825	DNGN 150704T02025	1/64			●				
		452T00825		150708T02025	1/32			●				
		453T00825		150712T02025	3/64			●				
		454T00825		150716T02025	1/16			●				
		DNGX 352T00825	T00825	DNGX 120708T02025	1/32						△	
		DNGX 454T00825		DNGX 150716T02025	1/16						●	
		ENG 452T00625AA	S00625	ENGN 130708S01525	1/32				●			
		453T00625AA		130712S01525	3/64			△				
		ENG 451T00825	T00825	ENGN 130704T02025	1/64			●				
		452T00825		130708T02025	1/32			●				
		453T00825		130712T02025	3/64			●				
		454T00825		130716T02025	1/16			●				
		455T00825		130720T02025	5/64			●				

A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERT GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology.

Inserts sold in 10 piece boxes.

 KYOCERA

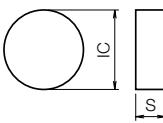
B109

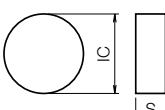
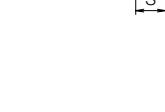
CERAMIC TURNING INSERTS (NEGATIVE)

How to read this page B15

Round Negative Insert

B TURNING
INSERTS



Symbol	Edge Prep.		Example	K	Gray Cast Iron (With Scale)				●	✖	●	✖	●
	Cutting Edge Spec.				Gray Cast Iron (Without Scale)	○	○	○	○	○	○	○	○
S	Chamfered and Honed Cutting Edge	S00525	0.005" X 25°	Nodular Cast Iron (With Scale)									
T	Chamfered Cutting Edge	T00315	0.003" X 15° Chamfered Cutting Edge	Nodular Cast Iron (Without Scale)									
Insert				S	Heat-resistant Alloys				○	●		●	✖
				H	Hard Materials							○	●
				ANSI Part Number		*Edge Prep (in)	ISO Part Number		Corner Radius (in)	RE	Aluminum Oxide Ceramic	PVD Coated Ceramic	Silicon Nitride Ceramic
									KA30	A65	KT66	MEGA00AT Ceramic	CVD Coated Silicon Nitride Ceramic
	RNG	32E001	E001	RNGN	090300E003	-							△
		32T00420	T00420		090300T01020	-							●
	RNG	33T00625AA	S00625	RNGN	090400S01525	-			●				
		33S00825	S00825		090400S02025	-			●				
	RNG	33T00420	T00420		090400T01020	-							△
		33T00825	T00825		090400T02025	-		●		●			
	RNG	35T00420	T00420	RNGN	090700T01020	-							△
	RNG	43E001	E001	RNGN	120400E003	-							●
		43T00625AA	S00625		120400S01525	-		●					
	RNG	43S00825	S00825		120400S02025	-		●					
	RNG	43T00420	T00420		120400T01020	-							● △ △
	RNG	43T00625	T00625		120400T01525	-		●					
		43T00825	T00825		120400T02025	-	●	△	●	●	●	●	△
	RNG	45E001	E001	RNGN	120700E003	-							●
		45E002	E002		120700E005	-							●
	RNG	45K06015	K06015		120700K15015	-			●				
	RNG	45T00625AA	S00625	RNGN	120700S01525	-		●					
		45S00825	S00825		120700S02025	-		●					
	RNG	45T00420	T00420		120700T01020	-							● ● △
	RNG	45T00625	T00625		120700T01525	-		●					
		45T00825	T00825		120700T02025	-	●	△	●	●	●	●	
	RNG	55T00625AA	S00625	RNGN	150700S01525	-			●				
		55S00825	S00825		150700S02025	-		●					
	RNG	55T00825	T00825		150700T02025	-	●						
	RNG	65E001	E001	RNGN	190700E003	-							●
		65T00420	T00420		190700T01020	-							● ● ● ●
	RNG	85E001	E001	RNGN	250700E003	-							
		85T00420	T00420		250700T01020	-							△

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

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
E	R-honed Cutting Edge	E002	R0.002" Honed
K	Double Chamfered Cutting Edges	K06015	0.060" X 15° Chamfered Cutting Edge

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

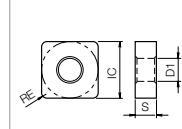
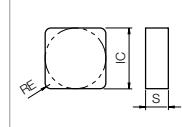
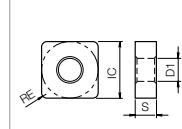
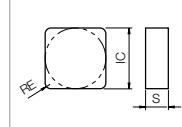
- Note: Symbol "K" describe only the largest chamfer width and its angle.

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology

CERAMIC TURNING INSERTS (NEGATIVE)

How to read this page B15

90° Square Negative Insert

Symbol	Edge Prep.		Example	K	Gray Cast Iron (With Scale)		●	○	○	●	✖	✖	○				
	Cutting Edge Spec.				Gray Cast Iron (Without Scale)												
S	Chamfered and Honed Cutting Edge		S00525		0.005" X 25° Chamfered and Honed Cutting Edge		○	○	○	○	○	○	○				
T	Chamfered Cutting Edge		T00315		0.003" X 15° Chamfered Cutting Edge		S	Heat-resistant Alloys	○	●	○	✖	✖				
					Hard Materials		H										
Insert			ANSI Part Number	Edge Prep (in)	ISO Part Number		Corner Radius (in)	RE	Aluminum Oxide Ceramic	PVD Coated Ceramic	MegaCoat Ceramic	Silicon Nitride Ceramic	CVD Coated Silicon Nitrile Ceramic	SiAlON Ceramic	Honeycomb Structure Ceramic	Whisker Reinforced Ceramic	
					KA30	A65	KT66	AE6N	PT600M	KS615	KS6050	CS7050	KS6030	KS6040	CF1	XXW1	
					SNGA 432T00625AA	S00625	SNGA 120408S01525	1/32	●								
					433T00625AA		120412S01525	3/64	●								
					SNGA 432S00825	S00825	SNGA 120408S02025	1/32				●					
					433S00825		120412S02025	3/64			●						
					SNGA 432T00625	T00625	SNGA 120408T01525	1/32		●		●					
					433T00625		120412T01525	3/64									
					SNGA 432T00825	T00825	SNGA 120408T02025	1/32	●		●	●	●	●			
					433T00825		120412T02025	3/64	●		●	●	●	●			
					434T00825		120416T02025	1/16			●	●	●	●	●		
					SNMA 432T01230AA	S01230	SNMA 120408S03030	1/32		●							
					SNG 432T00425AA	S00425	SNGN 120408S01025	1/32	●								
					433T00425AA		120412S01025	3/64	●								
					434T00425AA		120416S01025	1/16	●								
					435T00425AA		120420S01025	5/64	●								
			S00625	SNG 432T00625AA	SNGN 120408S01525		1/32		●								
				433T00625AA	120412S01525		3/64		●								
				434T00625AA	120416S01525		1/16		●								
				435T00625AA	120420S01525		5/64		●								
			S00625	SNG 432T00220	SNGN 120408T00520		1/32	●									
				SNG 432T00420	SNGN 120408T01020		1/32										
				433T00420	120412T01020		3/64										
				434T00420	120416T01020		1/16										
			T00825	435T00420	120420T01020		5/64										
				SNG 431T00825	SNGN 120404T02025		1/64	●		●	●	●	●				
				432T00825	120408T02025		3/64	●		●	●	●	●				
				433T00825	120412T02025		1/64	●		●	●	●	●				
			T00825	434T00825	120416T02025		1/16	●		●	●	●	●				
				435T00825	120420T02025		5/64	●		●	●	●	●				
				SNG 452T00425AA	S00425	120708S01025	1/32	△									
				453T00425AA		120712S01025	3/64	△									
				454T00425AA		120716S01025	1/16	△									
			S00625	SNG 451T00625AA	S00625	SNGN 120704S01525	1/64		●		●	●					
				452T00625AA		120708S01525	3/64		●		●	●					
				453T00625AA		120712S01525	1/64		●		●	●					
				454T00625AA		120716S01525	5/64		●		●	●					
				455T00625AA		120720S01525											
			S00825	SNG 452S00825	S00825	SNGN 120708S02025	1/32		●		●	●					
				453S00825		120712S02025	3/64		●		●	●					
				454S00825		120716S02025	1/16		●		●	●					
				455S00825		120720S02025	5/64		●		●	●					
			T00420	SNG 452T00420	T00420	SNGN 120708T01020	1/32		●								
				453T00420		120712T01020	3/64		●								
				454T00420		120716T01020	1/16		●								
				455T00420		120720T01020	5/64		●								

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

● : Standard Item △ : Phaseout Item (will be removed from next catalog)
Contact your local Kyocera sales engineer to upgrade old products to new technology.

Inserts sold in 10 piece boxes.

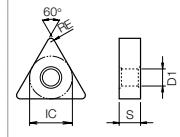
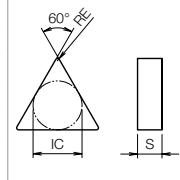
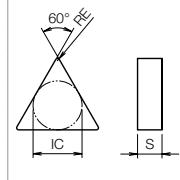
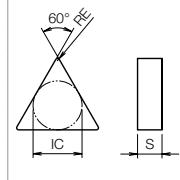
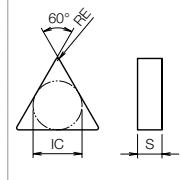
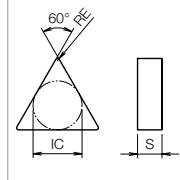
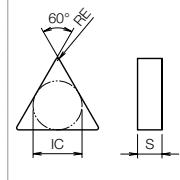
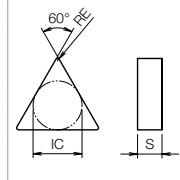
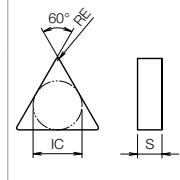
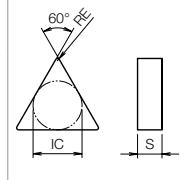
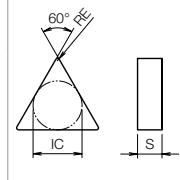
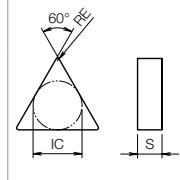
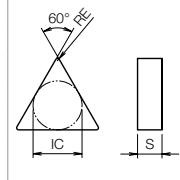
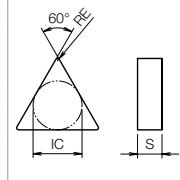
 KYOCERA

B111

CERAMIC TURNING INSERTS (NEGATIVE)

How to read this page  B15

60° Triangle Negative Insert

Symbol	Cutting Edge Spec.	Example	K	(in)				(in)													
				Part Number	IC	S	D1	Part Number	IC	S	D1										
S	Chamfered and Honed Cutting Edge	S00525	0.005" X 25° Chamfered and Honed Cutting Edge	TNGA 33_	3/8	3/16	0.150	TNG 33_	3/8	3/16	-										
T	Chamfered Cutting Edge	T00315	0.003" X 15° Chamfered Cutting Edge	TNG 22_	1/4	1/8	-	TNG 35_	3/8	5/16	-										
Insert			 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE																		
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNGA 332T00425AA	S00425	TNGA 160408S01025	1/32	△	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7050	KS6030	CF1	KXW1	D16	D17	D18	F88	F98	F99
	TNGA 331T00625AA	S00625	TNGA 160404S01525	1/64				●													
	332T00625AA		160408S01525	1/32				●													
	333T00625AA		160412S01525	3/64				●													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNGA 331S00825	S00825	TNGA 160404S02025	1/64					●												
	332S00825		160408S02025	1/32					●												
	333S00825		160412S02025	3/64					●												
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNGA 332T01230AA	S01230	TNGA 160408S03030	1/32				●													
	TNGA 332T00220	T00220	TNGA 160408T00520	1/32				●													
	TNGA 331T00625	T00625	TNGA 160404T01525	1/64					●												
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	332T00625		160408T01525	1/32					●												
	333T00625		160412T01525	3/64					●												
	TNGA 331T00825	T00825	TNGA 160404T02025	1/64				●	●												
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	332T00825		160408T02025	1/32				●	●												
	333T00825		160412T02025	3/64				●	●												
	TNGA 432T00825		TNGA 220408T02025	1/32				●													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	433T00825		220412T02025	3/64				●													
	TNG 221T00220	T00220	TNGN 110304T00520	1/64				●													
	222T00220		110308T00520	1/32				●													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 331T00425AA	S00425	TNGN 160404S01025	1/64				●													
	332T00425AA		160408S01025	1/32				●													
	333T00425AA		160412S01025	3/64				●													
	334T00425AA		160416S01025	1/16				△													
	335T00425AA		160420S01025	5/64				△													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 331T00625AA	S00625	TNGN 160404S01525	1/64					●												
	332T00625AA		160408S01525	1/32					●												
	333T00625AA		160412S01525	3/64					●												
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 331S00825	S00825	TNGN 160404S02025	1/64					●												
	332S00825		160408S02025	1/32					●												
	333S00825		160412S02025	3/64					●												
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 331T00220	T00220	TNGN 160404T00520	1/64				●													
	332T00220		160408T00520	1/32				●													
	333T00220		160412T00520	3/64				●													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 331T00825	T00825	TNGN 160404T02025	1/64				●													
	332T00825		160408T02025	1/32				●													
	333T00825		160412T02025	3/64				●													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 351T00825	T00825	TNGN 160704T02025	1/64				●													
	352T00825		160708T02025	1/32				●													
	353T00825		160712T02025	3/64				●													
	354T00825		160716T02025	1/16				△													
	355T00825		160720T02025	5/64				△													
 ANSI Part Number ISO Part Number Edge Prep (in) Corner Radius (in) RE	TNG 432T00825	T00825	TNGN 220408T02025	1/32				●													
	434T00825		220416T02025	1/16				●													

A	B	C	D	E	F	G	H	J	K	M	N	P	R	T
INSERT GRADES	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
INSERTS	TURNING INSERTS	CBN/PCD INSERTS	TURNING HOLDERS	SMALL TOOLS	BORING	GROOVING	CUT-OFF	THREADING	DRILLING	MILLING	QUICK CHANGE TOOLING	SPARE PARTS	TECHNICAL	INDEX
GRADE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE

35° Diamond / 80°Trigon

Negative Insert

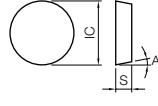
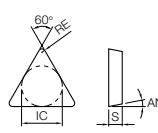
		Edge Prep.		K	Gray Cast Iron (With Scale)			○	●				(in)	
Symbol	Cutting Edge Spec.	Example			Gray Cast Iron (Without Scale)	Nodular Cast Iron (With Scale)	Nodular Cast Iron (Without Scale)							
S	Chamfered and Honed Cutting Edge	S00525	0.005" X 25° Chamfered and Honed Cutting Edge											
T	Chamfered Cutting Edge	T00315	0.003" X 15° Chamfered Cutting Edge	S	Heat-resistant Alloys									
				H	Hard Materials									
Insert		ANSI Part Number		Edge Prep (in)	ISO Part Number			Corner Radius (in) RE	A30	A65	KT66	A68N	PT600M	Aluminum Oxide Ceramic
		VNGA 331T00625AA 332T00625AA		S00625	VNGA 160404S01525 160408S01525			1/64				●		PVD Coated Ceramic
		VNGA 331S00825 332S00825		S00825	VNGA 160404S02025 160408S02025			1/64				●		MEGACOAT Ceramic
		VNGA 331T00825 332T00825 333T00825		T00825	VNGA 160404T02025 160408T02025 160412T02025			1/64	●	●	●	●		Silicon Nitride Ceramic
		VNMA 332T00625AA		S00625	VNMA 160408S01525			1/32				●		Si3N4 Coated Silicon Nitride Ceramic
		WNGA 432T00625AA		S00625	WNGA 080408S01525			1/32				●		Honeycomb Structure Ceramic
		WNGA 431T00625 432T00625 433T00625		T00625	WNGA 080404T01525 080408T01525 080412T01525			1/64				●		Whisker Reinforced Ceramic
								1/32				●		
								3/64				●		

D20
D21
D22
D24D26
D27
F101
F102

CERAMIC TURNING INSERTS (POSITIVE)

How to read this page  B15

Positive Insert

Edge Prep.				K	Part Number	IC	S	AN	Part Number				IC	S	AN																
Symbol	Cutting Edge Spec.	Example							TBG 121	5/32	1/16	5°																			
S	Chamfered and Honed Cutting Edge	S00525	0.005" X 25° Chamfered and Honed Cutting Edge		RPG 32	3/8	1/8	11°	TCG 33	3/8	3/16	7°																			
T	Chamfered Cutting Edge	T00315	0.003" X 15° Chamfered Cutting Edge	S	RPG 43	1/2	3/16		TPG 1815	7/32	3/32																				
				H	SPG 32	3/8	1/8		TPG 22	1/4	1/8	11°																			
					SPG 42	1/2	1/8		TPG 32	3/8	1/8																				
Insert				ANSI Part Number	ISO Part Number	*Edge Prep (in)	Corner Radius (in) RE	Aluminum Oxide Ceramic	KA30	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7050	KS6030	CF1	KXW1	Toolholder Page											
																															
																															
																															

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

Edge Prep.			
Symbol	Cutting Edge Spec.	Example	
E	R-honed Cutting Edge	E002	R0.002" Honed

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

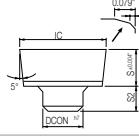
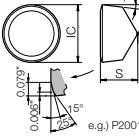
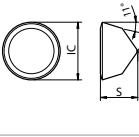
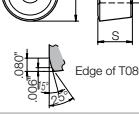
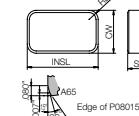
Contact your local Kyocera sales engineer to upgrade old products to new technology

Inserts sold in 10 piece boxes.


KYOCERA
B115

A	INSERT GRADES
B	TURNING INSERTS
C	CBN/PCD TURNING INSERTS
D	TURNING HOLDERS
E	SMALL TOOLS
F	BORING
G	GROOVING
H	CUT-OFF
J	THREADING
K	DRILLING
M	MILLING
N	QUICK CHANGE TOOLING
P	SPARE PARTS
R	TECHNICAL
T	INDEX

Inserts for Roll Machining

Edge Prep.			ANSI Part Number	ISO Part Number	Dimensions (in)										Toolholder Page							
Symbol	Cutting Edge Spec.	Example			K		S		H		C		P		A							
S	Chamfered and Honed Cutting Edge	S00525 0.005" X 25° Chamfered and Honed Cutting Edge			Gray Cast Iron (With Scale)		Gray Cast Iron (Without Scale)		Nodular Cast Iron (With Scale)		Nodular Cast Iron (Without Scale)		Heat-resistant Alloys		Hard Materials							
T	Chamfered Cutting Edge	T00315 0.003" X 15° Chamfered Cutting Edge			C		P		A		B		C		P							
Insert					Dimensions (in)																	
		RBG 16K20003	K20003	16K20003	IC	D1	S	S2	CHW	KA30	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7060	KS6030	KS6040	CF1	KXW1	
					16mm	8mm	8mm	5mm	0.2mm						●				-			
		RCGX 24E001 24E002 24T00420 102T04015 *1 102H315T04015 35E001 35E002 103T08015625AA 103S00420 35T00420 45E001 104T08015625AA 104S00420 45T00420 106T08015625AA	E001 E002 T00420 T04015 T04015 E001 E002 P08015 S00420 T00420 E001 P08015 S00420 T00420 P08015	RCGX 060600E003 060600E005 060600T01020 060400 *1 060700 090700E003 090700E005 090700P20015 090700S01020 090700T01020 120700E003 120700P20015 120700S01020 120700T01020 191000P20015	1/4	-	1/4	-	-									△	●	●	●	D37
					1/4	-	1/4	-	-	●	●	●							-			
		RPGX 24E001 24T00420 35E001 35T00420 45E001 45E002 45T00420	E001 T00420 E001 T00420 E001 E002 T00420	RPGX 060600E003 060600T01020 090700E003 090700T01020 120700E003 120700E005 120700T01020	1/4	-	1/4	-	-								●	●	●	●	D37	
					1/4	-	1/4	-	-	●	●	●					△	△	△	△	-	
		RCMA 66T08015625AA 88T08015625AA 106T08015625AA 1012T08015625AA	P08015	RCMA 190900P20015 251200P20015 310900P20015 311800P20015	3/4	0.250	3/8	-	-	●	●						●	●	●	●	-	
					1	0.266	1/2	-	-	●							△				-	
		LNU 6688T08015625A	P08015	LNUN 381232P20015	CW	S	INSL	RE	-	KA30	A65	KT66	A66N	PT600M	KS6015	KS6050	CS7050	KS6030	KS6040	CF1	KXW1	-
					3/4	1/2	1 1/2	1/8	-	△												

*1 IC may differ based on edge prep.

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	E002	R 0.002" 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 sold in 10 piece boxes.

● : Standard Item △ : Phaseout Item (will be removed from next catalog)

Contact your local Kyocera sales engineer to upgrade old products to new technology

B

TURNING
INSERTS