

INSERT GRADE SELECTION

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COATED CARBIDE INSERTS		
IAN5	General purpose & heavy duty milling grade with excellent wear resistance for machining at low speeds & interrupted cuts	Low speed cutting for carbon steel or alloyed steel & higher speeds for cast iron
R5	Premium milling grade recommended for heavy roughing	Machining unalloyed & alloyed steels Preferably used for P20 - P40 applications
HN	Premium multi-purpose high speed machining grade	Machining high strength aerospace alloys, high nickel base materials, cast iron, & stainless
TA	Ultra fine submicron grade for general purpose milling	Machining titanium but can be used to machine high-temp. alloys & hard steels (up to <54 HRC)
TI-8	Premium milling grade for general purpose milling	Machining aluminum, kirksite, & remboard
TI-8J	Premium milling grade for general purpose milling (Uncoated carbide with J-Polish)	Machining aluminum, kirksite, & remboard
CERMET INSERTS		
TI-300	Cermet milling grade for high speed finishing	High speed machining semi-finishing & finishing for unalloyed & alloyed steels, cast iron, & harden steels ("RC" 50/60)

RECOMMENDED CUTTING GRADES

MATERIAL	INSERT GRADE
▲ Unalloyed	IAN5, R5, & TI-300
▲ Alloyed	
▲ Stainless Steels	HN, TA
▲ PH Stainless	
▲ Cast Irons	IAN5, HN, TA, & TI-300
▲ Aluminum & Alloys	TI-8 & TI-8J
▲ High Temp. Alloys	HN & TA
▲ Harden Steels	HN, TA, & TI-300

BI & ARF INSERTS

BI INSERTS



BI-750



BI-751

NOTE: IBC cutters take two different insert types. Example: A IBC-75BI-2 cutter will need a BI-750 insert and a BI-751 insert.

CATALOG NUMBER	CUTTING DIAMETER	AVAILABLE GRADES
BI-750-IAN5	0.750	IAN5
BI-751-IAN5		
BI-100-IAN5	1.000	
BI-101-IAN5		
BI-125-IAN5	1.250	
BI-126-IAN5		
BI-200-IAN5	2.000	
BI-201-IAN5		

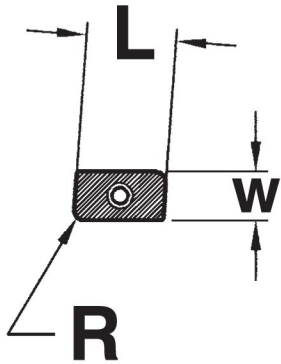
ARF INSERT



CATALOG NUMBER	CUTTING DIAMETER	AVAILABLE GRADES
ARF-375	0.375	JC5015
ARF-500	0.500	
ARF-750	0.750	
ARF-100	1.000	
ARF-125	1.250	

APCT & CDEW INSERTS

APCT INSERTS



APCT INSERTS AVAILABLE IN:
 HELICAL WITH CHIP GROOVE CUTTING EDGE
 FLAT-TOP CUTTING EDGE



APCT - 432



APCT - 434

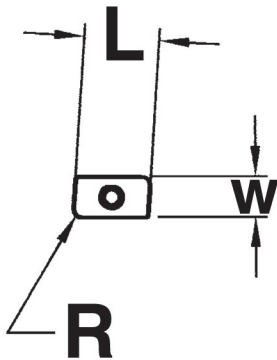


APCT - 438



APCT HELICAL WITH CHIP GROOVE INSERTS				
CATALOG NUMBER	WIDTH (W)	LENGTH (L)	RADIUS (R)	AVAILABLE GRADES
APCT-432	0.394	0.590	0.0312	IAN5, R5, HN, TA, TI-8J, & TI-300
APCT-434			0.0625	
APCT-438			0.1250	
APCT FLAT-TOP INSERTS				
CATALOG NUMBER	WIDTH (W)	LENGTH (L)	RADIUS (R)	AVAILABLE GRADES
APCT-432-FT	0.394	0.590	0.0312	IAN5, R5, HN, TA, TI-8J, & TI-300
APCT-434-FT			0.0625	
APCT-438-FT			0.1250	

CDEW INSERTS



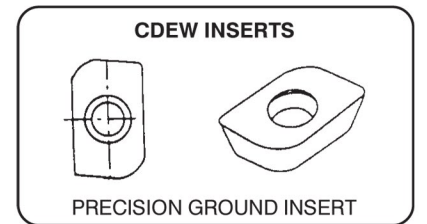
CDEW - 322



CDEW - 324



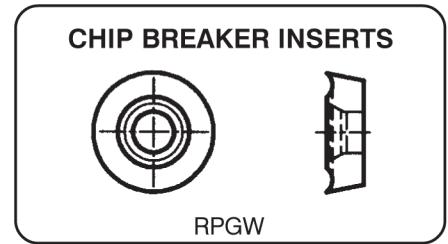
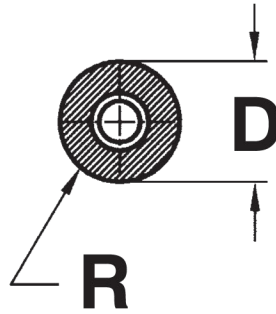
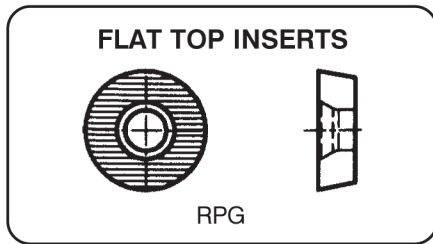
CDEW - 328



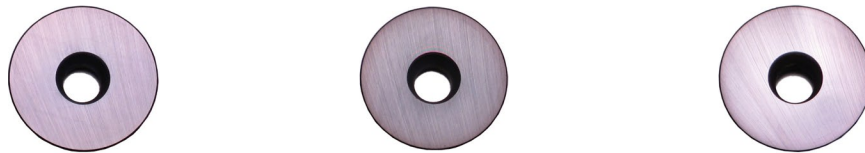
CDEW INSERTS HAVE A FLAT-TOP CUTTING EDGE

CATALOG NUMBER	WIDTH (W)	LENGTH (L)	RADIUS (R)	AVAILABLE GRADES
CDEW-322	0.314	0.500	0.0312	IAN5, R5, HN, TA, TI-8J, & TI-300
CDEW-324			0.0625	
CDEW-328			0.1250	

RPG & RPGW INSERTS



RPG INSERTS



RPG INSERTS HAVE A FLAT TOP

CATALOG NUMBER	DIAMETER (D)	RADIUS (R)	AVAILABLE GRADES
RPG-43	0.5000	0.2500	IAN5, R5, HN & TA
RPG-53	0.6250	0.3125	
RPG-64	0.7500	0.3750	
RPG-84	1.0000	0.5000	

RPGW INSERTS



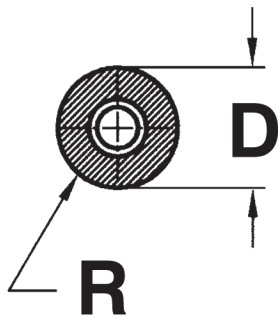
RPGW INSERTS HAVE A CHIP BREAKER

CATALOG NUMBER	DIAMETER (D)	RADIUS (R)	AVAILABLE GRADES
RPGW-21	0.2500	0.1250	IAN5, HN,TA, & TI-8
RPGW-22			
RPGW-32	0.3750	0.1875	
RPGW-43	0.5000	0.2500	
RPGW-53	0.6250	0.3125	
RPGW-64	0.7500	0.3750	
RPGW-84	1.0000	0.5000	

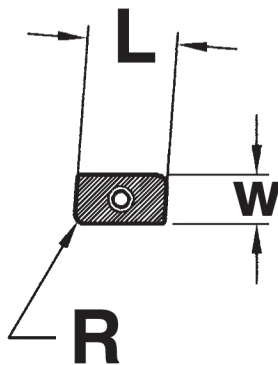
METRIC SECTION

RPG, APCT, CDEW INSERTS

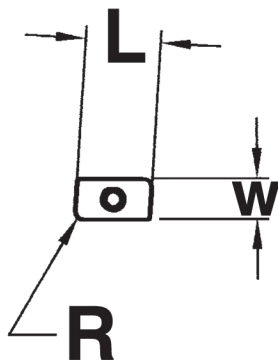
Most Metric Inserts Are Not Standard Stock Items Contact Us For Availability.



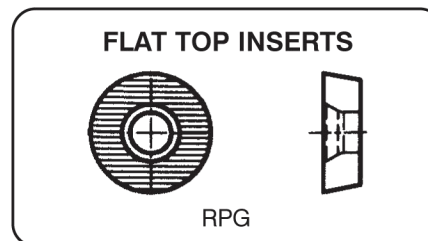
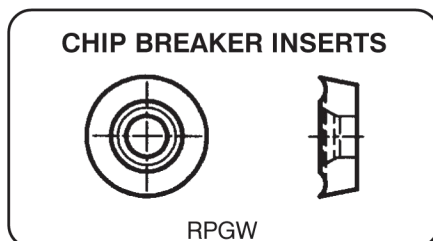
CATALOG NUMBER	D	R
RPG-9.5	9.50	4.75
RPG-12.3	12.00	6.00
RPG-12.4	12.00	6.00
RPG-16.4	16.00	8.00
RPG-16.5	16.00	8.00
RPG-19	19.00	9.50
RPG-25	25.00	12.50



CATALOG NUMBER	w	L	R
APCT-432	10.00	15.00	.792
APCT-434	10.00	15.00	1.587
APCT-438	10.00	15.00	3.175



CATALOG NUMBER	w	L	R
CDEW-322	8.00	12.50	.792
CDEW-324	8.00	12.50	1.587
CDEW-328	8.00	12.50	3.175



RECOMMENDED CUTTING CONDITIONS

RECOMMENDED CUTTING CONDITIONS FOR: COATED INSERTS

ISO	MATERIAL	MATERIAL STRENGTH	CARBIDE						CERMET
			COATED			UNCOATED			
			IAN5	R5	HN	TA	TI-8	TI-8 (J-Polished)	
SURFACE SPEED FEET PER MINUTE									
P	UNALLOYED STEELS	< 180 HBN	795 - 340	795 - 340	920 - 420	920 - 420	920 - 420	-	1140 - 770
		< 180 HBN	700 - 300	700 - 300	830 - 370	830 - 370	830 - 370	-	1010 - 670
M	ALLOYED STEELS	210-280 HBN	650 - 300	650 - 300	790 - 320	790 - 320	790 - 320	-	890 - 590
		280-360 HBN	550 - 200	550 - 200	630 - 260	630 - 260	630 - 260	-	680 - 450
		360-415 HBN	325 - 130	325 - 130	360 - 160	360 - 160	360 - 160	-	430 - 290
M	STAINLESS STEELS	AUSTENIC + FERRITIC	-	-	920 - 420	920 - 420	710 - 390	-	1010 - 670
		MARTENSITIC	-	-	830 - 370	830 - 370	640 - 360	-	910 - 620
K	PH STAINLESS	REFRACTORY P.H.	-	-	380 - 180	380 - 180	300 - 160	-	-
		CAST IRONS	840 - 360	840 - 360	970 - 470	970 - 470	780 - 370	-	1200 - 820
N	ALUMINUM & ALLOYS	SPHEROIDAL-DUCTILE GGG-FGS	655 - 280	655 - 280	780 - 370	780 - 370	780 - 370	-	940 - 630
		MALLEABLE GTS-MN/MP	595 - 255	595 - 255	710 - 340	710 - 340	710 - 340	-	860 - 570
S	HIGH TEMPERATURE ALLOYS	< 16% SILICON	-	-	-	-	3290 - 1300	3290 - 1300	-
		> 16% SILICON	-	-	-	-	1560 - 800	1560 - 800	-
H	HARD STEELS	IRON BASED	-	-	300 - 130	300 - 130	250 - 130	-	-
		COBALT BASED	-	-	170 - 80	170 - 80	140 - 80	-	-
		NICKEL BASED	-	-	190 - 80	190 - 80	150 - 80	-	-
		TITANIUM BASED	-	-	220 - 90	220 - 90	170 - 90	-	-
		48 - 52 HRC	300 - 130	300 - 130	200 - 450	200 - 450	200 - 450	-	200 - 360
H	HARD STEELS	52 - 56 HRC	285 - 120	285 - 120	170 - 320	170 - 320	170 - 320	-	170 - 320
		56 - 58 HRC	265 - 115	265 - 115	70 - 130	70 - 130	70 - 130	-	70 - 130
		46 - 50 HRC	235 - 100	235 - 100	235 - 100	235 - 100	235 - 100	-	235 - 100
SURFACE SPEED FEET PER MINUTE									
SURFACE SPEED FEET PER MINUTE									

Surface Speed Feet Per Minute

Surface Speed =

3.142 x Cutter Dia. x R.P.M

R.P.M =

Surface Speed x 12
(Cutter Dia. x 3.142)

12


Troy industries inc.

(586) 739-7760 Fax (586) 739-7769